

PART 4.—VITAL STATISTICS.

Marriages,
1893.

410. The marriages celebrated in 1893 numbered 7,004, as against 7,723 in 1892, 8,780 in 1891, and 9,187 in 1890.

Marriages,
1893 and
former
years.

411. The marriages returned in 1893, although fewer than in the nine previous years, were more numerous than those in any year prior to those. The number returned annually had been almost stationary during the seven years prior to 1880, but in that year an advance was made which continued until 1890. In 1882, for the first time, the marriages returned exceeded 6,000; in 1884 they exceeded 7,000; in 1888 they nearly reached 9,000; and in 1889 and 1890 they exceeded that number by nearly 200*; but in 1891 they again fell below 9,000; in 1892 they fell below 8,000; and in 1893 they fell to 7,000, or fewer than there were nine years previously.

Marriage
rate.

412. The proportion which the number of marriages bears to the total population is generally called the marriage rate. This for many years was declining in Victoria; for, whilst in the three years prior to 1863 it was above 8 per 1,000 of both sexes, and all ages, from 1863 to 1865 it was between 7 and 8, and from 1866 to 1878 it was between 6 and 7 per 1,000. It reached its lowest point, 5·98 per 1,000, in 1879; then gradually revived, until the period between 1888 and 1890, when it again exceeded 8 per 1,000, for the first time since 1862. In 1891 a somewhat sudden fall took place to 7·66 per 1,000, which was about the same average as that prevailing during the four years prior to 1888; in 1892 there occurred a still further fall to 6·64; and in 1893 to 5·98 per 1,000; the latter being the same rate as in 1879, which was the lowest previously recorded. The following table gives the number of marriages and number of persons married per 1,000 of the population

* For the number of marriages during each year since the first settlement of Port Phillip, see Statistical Summary of Victoria (first folding sheet) to be published later on.

during 1860 and each subsequent fifth year, also in the three years ended with 1893 :—

ANNUAL MARRIAGE RATE, 1860 TO 1893.

Year.	Per 1,000 of the Mean Population.	
	Number of Marriages.	Numbers of Persons Married.
1860	8·15	16·30
1865	7·36	14·72
1870	6·63	13·26
1875	6·33	12·66
1880	6·22	12·44
1885	7·73	15·46
1890	8·21	16·42
1891	7·66	15·32
1892	6·64	13·28
1893	5·98	11·96
Mean of 34 years	6·94	13·86

413. It has been shown, upon more than one occasion,* that the frequency of marriage is not dependent upon the numbers of the total population, still less upon the number of marriageable women, but almost entirely upon the number of marriageable men the community contains, the tendency of whom to marry is modified by their habits and occupations, and upon the view they take of their future prospects. Thus men have a greater tendency to marry in prosperous than in dull times, and the men of a rural, and especially of an agricultural, community have a greater tendency to marry than those of an urban one. To demonstrate this the following table has been constructed, showing the proportion of marriages to the population, to the number of single

Marriage rate at various periods.

* See *Victorian Year-Book*, 1889-90, pages 265 to 267; same work, 1879-80, pages 103 and 104; same work, 1880-81, pages 199 and 200; same work, 1881-2, pages 165 and 166; and same work, 1892, Vol. I. pages 323 and 324.

men, and to the number of single women in each of the last six census years ended with 1891 :—

PROPORTION OF MARRIAGES TO POPULATION* AND TO SINGLE MEN AND WOMEN, 1854 TO 1891.

Year of Census.	Exclusive of Chinese and Aborigines.						
	Total Population.	Marriage-able Men.†	Marriage-able Women.‡	Marriages.	Proportion of Marriages per 1,000 of the—		
					Popula-tion.	Marriage-able Men.	Marriage-able Women.
1854 ...	234,361	70,865	15,083	3,696	15·77	52·16	245·04
1857 ...	383,668	95,427	26,317	4,465	11·64	46·79	169·66
1861 ...	513,896	106,940	37,006	4,528	8·81	42·34	122·36
1871 ...	712,263	89,921	65,386	4,715	6·62	52·43	72·11
1881 ...	849,438	99,824	119,360	5,732	6·75	57·42	48·02
1891 ...	1,130,463	163,048	173,138	9,007	7·97	55·24	52·02

Fluctuations in marriage rate.

414. It will thus be observed that, whilst the proportion of marriages to the population (marriage rate), and to the marriageable women, has fluctuated considerably, the proportion to the marriageable men has been tolerably constant, the extremes being $57\frac{1}{2}$ in 1881 and $42\frac{1}{3}$ in 1861. At the last three decennial periods, when the colony was in a more settled condition than at earlier periods, this proportion averaged 55 per 1,000, which also was about the rate in 1891. At the same periods the proportion of marriages per 1,000 marriageable females varied from 72 in 1871 to 48 in 1881; since 1881, as was anticipated,§ this proportion has increased, and in 1891 it stood at 52.

Marriages of available persons in Australasia and United Kingdom.

415. It would appear from the following calculations, which have been made in the office of the Government Statist, Melbourne, that, in proportion to the number of marriageable men (bachelors aged 20 and

* The populations in this table are those returned at the respective censuses, the Chinese and Aborigines being excluded; and the marriages are those (exclusive of marriages of Chinese and Aborigines) which took place in the twelve months of which the date of each census was the middle. The proportion of the latter to the former in 1891, therefore, differs slightly from that in the previous table, which is based upon the total mean population and all the marriages in the calendar year.

† Comprising bachelors of twenty and upwards, and widowers at all ages.

‡ Comprising spinsters of fifteen and upwards, and widows at all ages.

§ ee *Victorian Year-Book*, 1889-90, Vol. I., paragraph 447.

upwards and widowers and divorced men at all ages), more marriages take place in England and fewer in Ireland and Scotland than in any of the Australasian Colonies; also that, in proportion to the number of marriageable women (spinsters aged fifteen and upwards and widows and divorced women at all ages), fewer marriages take place in England, Ireland, and Scotland than in any of the Australasian Colonies, of which Western Australia, in this respect, stands at the head. Victoria, it will be observed, stands below South Australia, and slightly below Tasmania and New South Wales, as regards the proportion of marriages of available men, and below any of the other Australasian Colonies as regards the proportion of marriages of available women :—

MARRIAGES IN PROPORTION TO NUMBER OF AVAILABLE MEN AND WOMEN IN THE AUSTRALASIAN COLONIES AND DIVISIONS OF THE UNITED KINGDOM, 1891.

Marriages per 1,000 Marriageable Men.			Marriages per 1,000 Marriageable Women.		
England	...	84·84	Western Australia	...	76·31
South Australia	...	64·58	Queensland	...	72·87
Tasmania	...	54·80	New South Wales	...	61·72
New South Wales	...	53·87	South Australia	...	53·67
Victoria	...	53·85*	New Zealand	...	52·88
New Zealand	...	48·64	Tasmania	...	51·03
Queensland	...	44·70	Victoria	...	50·71*
Western Australia	...	35·74	England	...	45·92
Ireland	...	32·95	Ireland	...	21·29
Scotland	...	32·08	Scotland	...	17·29

416. According to papers read before the Statistical Society of Paris, by M. Toussaint Lona, in September and December, 1884, marriageable men marry at the rate of 57 per 1,000 in France, and of 49 per 1,000 in Switzerland, and marriageable women marry at the rate of 46 per 1,000 in France, and of 38 per 1,000 in Switzerland. It is not certain, however, that the figures are comparable with those in the foregoing table, as it is not known what were the ages worked with by the author in making his calculations as those marking the commencement of the period of bachelorhood and spinsterhood.

Marriages of available persons in France and Switzerland.

* These proportions differ slightly from those given in the table following paragraph 413 *ante*, where the comparisons are made with the marriages which took place in the twelve months of which the Census was the middle instead of the calendar year 1891, which has here been adopted uniformly for all the colonies and countries. The marriages in the former table, moreover, were exclusive of those of Chinese and Aboriginies, which is not the case here.

417. The following table gives a statement of the number of marriages to every 1,000 of the population of the various Australasian Colonies for each fifth year from 1865 to 1890, also for 1891, 1892, and 1893, except Western Australia, for which colony the first year given is 1875 :—

MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1865 TO 1893.*

Year.	Number of Marriages† per 1,000 of Mean Population.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	7·36	8·94	13·27	9·45	...	6·27	10·47
1870 ...	6·63	7·85	7·80	6·90	...	6·62	7·62
1875 ...	6·33	7·88	8·63	8·01	7·26	6·63	8·94
1880 ...	6·22	7·68	6·97	8·69	7·42	7·38	6·71
1885 ...	7·73	8·22	9·20	7·82	7·51	8·22	6·73
1890 ...	8·21	7·15	8·28	7·04	6·18	6·64	6·12
1891 ...	7·66	7·39	7·22	7·29	8·06	6·63	6·05
1892 ...	6·64	6·77	6·67	6·50	7·36	6·51	6·23
1893 ...	5·98	6·40	5·91	6·27	6·27	5·51	6·22
Mean of 29 years }	6·97	7·85	8·44	7·71	6·99	6·96	7·46

418. According to an average extending over a period of 29 years, the marriage rate in Victoria was almost identical with that in Tasmania, but was below that in any of the other colonies. In the last year, the marriage rate in Victoria occupied the fifth position, it being higher than that in Queensland or Tasmania, but lower than that in the other four colonies.

419. The following is the order of the colonies in reference to their respective marriage rates in the last year shown in the table and according to the average of the whole period of 29 years :—

- Order in Latest Year.
1. New South Wales.
 2. { Western Australia.
 - { South Australia.
 4. New Zealand.
 5. Victoria.
 6. Queensland.
 7. Tasmania.

- Order in a Series of Years.
1. Queensland.
 2. New South Wales.
 3. South Australia.
 4. New Zealand.
 5. Western Australia.
 6. Victoria.
 7. Tasmania.

* For the number of marriages in the various colonies during the 21 years ended with 1893, see General Summary of Australasian Statistics (third folding sheet) to be published later on.
 † The numbers doubled give the *persons* married per 1,000 of the population.

420. The mean marriage rate of the five colonies situated upon the Australian continent, and of those colonies with the addition of Tasmania and New Zealand, shows a falling-off since 1883 or 1884, when it was at a maximum, and was lower in 1893 than in any year since 1872, as is shown by the following figures:—

MARRIAGE RATES IN AUSTRALIA AND AUSTRALASIA,
1873 TO 1893.

Year.	Number of Marriages* per 1,000 of Mean Population.		Year.	Number of Marriages* per 1,000 of Mean Population.	
	Continent of Australia.	Australia with Tasmania and New Zealand.		Continent of Australia.	Australia with Tasmania and New Zealand.
1873 ...	7.35	7.38	1885 ...	8.09	7.86
1874 ...	7.07	7.32	1886 ...	7.84	7.50
1875 ...	7.12	7.38	1887 ...	7.56	7.26
1876 ...	6.93	7.15	1888 ...	7.99	7.61
1877 ...	7.05	7.18	1889 ...	7.69	7.37
1878 ...	7.08	7.27	1890 ...	7.67	7.37
1879 ...	6.88	7.01	1891 ...	7.46	7.20
1880 ...	7.15	7.08	1892 ...	6.69	6.61
1881 ...	7.62	7.41	1893 ...	6.16	6.14
1882 ...	8.03	7.86			
1883 ...	8.24	8.02			
1884 ...	8.22	7.98			
			Means ...	7.42	7.33

421. Returns of marriages, births, and deaths are obtainable for few British Colonies outside of Australasia. The following are the marriage rates in those colonies—which, it is to be regretted, are, for the most part, of only minor importance—for which such particulars have come to hand, or can be gathered from their official reports. The low rate in Barbados is explained by the fact that the negro population as a rule ignore the marriage ceremony. The same circumstance may perhaps also affect the marriage rate in the Mauritius, although the low marriage rate there would, to a certain extent, be accounted for by the fact that the large imported Coolie

* The numbers doubled give the persons married per 1,000 of the population.

population is for the most part comprised of males, the females introduced being extremely few:—

MARRIAGE RATES IN CERTAIN BRITISH COLONIES.

—	Years.	Annual Rate per 1,000 of the Population.*	—	Years.	Annual Rate per 1,000 of the Population.*
Ceylon ...	1867-76	7·3	West Indies—		
Cape of Good Hope	1889-93	4·2	Jamaica ...	1891-92	5·4
Mauritius ...	1871-75	2·5	St. Lucia ...	1878-79	5·2
Seychelles ...	1875-77	8·7	St. Vincent	1872-76	6·3
Nova Scotia ...	1871-75	7·7	Barbados ...	1872-77	3·7
Bermuda ...	1871-75	8·3	Grenada ...	1871-75	5·6
			Dominica ...	1871-75	6·9
			Trinidad ...	1888-90	5·8†

Marriage rates in European countries.

422. The following table gives for each of the five years ended with 1891 a statement of the marriage rates in each division of the United Kingdom and such foreign countries as the information is available for. The figures have been taken from the latest report of the Registrar-General of England :—

MARRIAGE RATES IN EUROPEAN COUNTRIES, 1888 TO 1892.

Countries.	Number of Marriages* per 1,000 of Mean Populations.					
	1888.	1889.	1890.	1891.	1892.	Mean of 5 Years.
Hungary ...	9·3	...	...	...	...	9·3‡
Prussia ...	8·0	8·2	8·2	8·1	8·0	8·1
German Empire ...	7·8	8·0	8·1	8·0	7·9	8·0
Italy ...	8·0	7·7	7·4	7·7	7·5	7·7
Austria ...	7·9	7·5	7·6	7·7	7·8	7·7
England and Wales	7·2	7·5	7·8	7·8	7·7	7·6
Belgium ...	7·1	7·3	7·3	7·4	7·7	7·4
France ...	7·2	7·1	7·0	7·5	7·6	7·3
United Kingdom ...	6·7	7·1	7·2	7·3	7·3	7·1
Switzerland ...	7·0	7·1	7·1	7·1	7·3	7·1
Holland ...	6·9	7·0	7·1	7·1	7·2	7·1
Denmark ...	7·1	7·1	6·9	6·8	6·8	6·9
Scotland ...	6·4	6·6	6·9	6·9	7·0	6·8
Norway ...	6·1	6·3	6·5	6·6	6·3	6·4
Sweden ...	5·9	6·0	...	...	...	5·9§
Ireland || ...	4·2	4·5	4·5	4·6	4·6	4·5

* The numbers doubled give the *persons* married per 1,000 of the population.

† The East Indian section of the population (Coolies), amongst whom concubinage largely prevails, is not taken into account in the calculation.

‡ One year only.

§ Mean of two years.

|| The low marriage rate in Ireland is partly attributed to the defective registration of Roman Catholic marriages, which amount to over 70 per cent. of the whole. It is also stated to be in part due to "the abnormal conditions arising from a large annual emigration of unmarried persons at what may be called the marrying ages."—See 15th Detailed Report of the Registrar-General of Ireland, page 6.

423. It will be observed that in Austria, England and Wales, Belgium, France, the United Kingdom, Switzerland, Holland, Scotland, and Ireland the rate was slightly above the average; whilst in Prussia, the German Empire, Italy, Denmark, and Norway it was slightly below the average.

European marriage rates in 1892 and former years.

424. In the same five years the mean marriage rate in Victoria and Queensland was above that in any of the countries named, except Hungary (one year), the German Empire, and Prussia. The rate in New South Wales and Western Australia was higher than that in eight, in South Australia than in four, in Tasmania than in three, and in New Zealand than in two of these countries. The following are the rates referred to:—

Australasian and European marriage rates compared.

MEAN MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1888 TO 1892.

	Number of Marriages per 1,000 of Mean Population.					
Queensland	7.90
Victoria	7.88
New South Wales	7.19
Western Australia	7.15
South Australia	6.81
Tasmania	6.72
New Zealand	6.06

425. The following table shows the number of marriageable men and women in each Australasian Colony, according to the returns of the census of 1891, the unmarried (never married) being distinguished from the widowed:—

Marriageable persons in Australasian Colonies.

MARRIAGEABLE MEN AND WOMEN IN EACH AUSTRALASIAN COLONY, 1891.

(Exclusive of Chinese and Aborigines.)

Colony.	Marriageable Men.			Marriageable Women.		
	Bachelors aged 20 and upwards.*	Widowers at all ages.	Total.	Spinsters aged 15 and upwards.*	Widows at all ages.	Total.
Victoria	144,567	18,481	163,048	140,240	32,898	173,138
New South Wales	140,242	16,760	157,002	111,221	25,795	137,016
Queensland	60,518	4,464	64,982	33,171	6,695	39,866
South Australia	32,056	3,791	35,847	34,692	8,442	43,134
Western Australia	10,667	890	11,557	4,526	886	5,412
Total	388,050	44,386	432,436	323,850	74,716	398,566
Tasmania	15,616	2,413	18,029	15,416	3,945	19,361
New Zealand	70,437	7,797	78,234	59,861	12,098	71,959
Grand Total	474,103	54,596	528,699	399,127	90,759	489,886

* Including divorced persons at all ages.

Proportion
of single
women to
men in
Austral-
asian
Colonies.

426. South Australia, Tasmania, and Victoria are the only colonies in which the marriageable women exceeded the marriageable men. The following are the proportions of the former to the latter, the colonies being arranged in order:—

MARRIAGEABLE WOMEN PER 10,000 MARRIAGEABLE MEN
LIVING IN EACH COLONY, 1891.

1. South Australia ...	12,033	5. New South Wales ...	8,727
2. Tasmania ...	10,739	6. Queensland ...	6,135
3. Victoria ...	10,619	7. Western Australia ...	4,683
4. New Zealand ...	9,198		

Husbands
and wives
in Austral-
asian
Colonies.

427. The following are the numbers of husbands and wives in each Australasian colony, those under and over 21 years of age being distinguished:—

HUSBANDS AND WIVES IN EACH AUSTRALASIAN COLONY, 1891.
(Exclusive of Aborigines.)

Colony.	Husbands.			Wives.		
	Under 21 years.	Over 21 years.	Total.	Under 21 years.	Over 21 years.	Total.
Victoria ...	276	170,678	170,954	3,447	170,302	173,749
New South Wales ...	393	166,241	166,634	5,233	160,415	165,648
Queensland ...	115	57,772	57,887	1,873	55,723	57,596
South Australia ...	103	48,829	48,932	785	47,510	48,295
Western Australia	20	7,223	7,243	208	6,170	6,378
Total ...	907	450,743	451,650	11,546	440,120	451,666
Tasmania ...	76	22,237	22,313	591	20,808	21,399
New Zealand ...	107	90,443	90,550	1,666	89,211	90,877
Grand Total ...	1,090	563,423	564,513	13,803	550,139	563,942

Proportion
of wives to
husbands
in Austral-
asian
Colonies.

428. Victoria and New Zealand are the only Australasian Colonies in which wives exceeded husbands. In all the other colonies husbands were in excess. Wives relatively to husbands were fewest in Western Australia, and next so in Tasmania. The following are the proportions in the different colonies:—

WIVES TO EVERY 10,000 HUSBANDS IN EACH COLONY, 1891.
(Exclusive of Aborigines.)

1. Victoria ...	10,164	5. South Australia ...	9,870
2. New Zealand ...	10,036	6. Tasmania ...	9,590
3. Queensland ...	9,950	7. Western Australia ...	8,806
4. New South Wales ...	9,941		

429. In the Australian Continent as a whole the husbands and wives were about equal, the difference being only 16 in favour of the latter. In Australia combined with Tasmania and New Zealand there was a slight difference in the opposite direction, there being 571 more husbands than wives.

Proportion of wives to husbands in Australasia.

430. Although rural rather than urban life tends to the promotion of marriage, it happens that, since the marriage ceremony is generally performed in towns, whatever may be the ordinary residence of the persons marrying, the marriage rate recorded there is much higher than that in the country. In Victoria, during the year 1893, it was about two and three-quarter times as high in the metropolis, and nearly three and a half times as high in country towns, as it was in rural districts, as will be seen by the following table, which contains a statement of the proportion of marriages to the population in the three classes of districts in the year 1893 and in the previous decennial period :—

Marriage rates in town and country

MARRIAGES IN URBAN AND COUNTRY DISTRICTS, 1893.

Districts.	Estimated Mean Population.	Marriages, 1893.		Proportion per 1,000 of the Population, 1881-90.
		Total Number.	Number per 1,000 of the Population.	
Melbourne and Suburbs (Greater Melbourne)	457,230	3,635	7.95	11.11
Extra-Metropolitan Towns ...	193,810	1,898	9.79	10.83
Country Districts ...	519,290	1,471	2.83	3.48
Total ...	1,170,330	7,004	5.98	7.67

431. Marriages in Victoria are generally most numerous in the autumn quarter, next in the spring quarter, next in the summer quarter, and least numerous in the winter quarter. This was the case in 1892, although in the year under review the marriages in the summer quarter were more numerous than those in the spring quarter. The following table shows the number and percentage of marriages in

Marriages in each quarter.

each quarter of 1893, and the mean percentage in each quarter of two previous decades :—

MARRIAGES IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1893.		Percentage in Ten Years.	
		Number of Marriages.	Percentage.	1871 to 1880.	1881 to 1890.
Summer ...	March ...	1,856	26·50	24·43	23·44
Autumn ...	June ...	1,874	26·76	26·19	26·66
Winter ...	September ...	1,557	22·23	23·81	23·35
Spring ...	December ...	1,717	24·51	25·57	26·55
	Year ...	7,004	100·00	100·00	100·00

Re-marriages.

432. In 1893, 635 widowers and 513 widows re-entered the marriage state. During the last twenty years more widowers have re-married than widows. Formerly it was different. In the nine years ended with 1873 the widowers re-entering the married state numbered 4,847, and the widows 5,128, and at earlier periods in the history of the colony the preponderance of re-marriages of widows over those of widowers was even greater than this. In England and Wales, during the ten years ended with 1890, 42 per cent. more widowers re-married than widows, the proportion in every 1,000 marriages being 122 of the former and 86 of the latter. The following is a statement of the number of widowers and widows who re-married in Victoria during 1865 and each subsequent fifth year, also in 1891, 1892, and 1893 :—

RE-MARRIAGES, 1865 TO 1893.

Year.	Number of Re-marriages of—	
	Widowers.	Widows.
1865	503	510
1870	547	595
1875	614	583
1880	603	520
1885	735	646
1890	748	674
1891	743	673
1892	664	532
1893	635	513
Mean of 29 years ...	639	586

433. In 1893 nearly nine-tenths of the unions which took place were between bachelors and spinsters, the proportion having gradually increased since 1871-80, when it was about seven-eighths. The next most numerous marriages are generally those between widowers and spinsters, although they have occasionally been exceeded by marriages between bachelors and widows. Marriages between widowers and widows in the decennial period 1881-90 were about a thirtieth, and in 1893 about a thirty-third of the whole. The following is the number and percentage of each of these groups during 1893, and the percentage during the decennial periods 1871-80 and 1881-90 :—

FORMER CONDITION OF PERSONS MARRIED.

Previous Condition.	Year 1893.		Percentage in Ten Years—	
	Number of Marriages.	Percentage.	1871 to 1880.	1881 to 1890.
Bachelors and Spinsters ...	6,072	86·69	80·59	85·84
Bachelors and Widows ...	297	4·24	7·10	4·72
Widowers and Spinsters ...	419	5·98	7·75	6·17
Widowers and Widows ...	216	3·09	4·56	3·27
Total ...	7,004	100·00	100·00	100·00

Former condition of those marrying.

434. By the figures in the following table it would appear that a larger proportion of widowers re-marry in Vermont, and a smaller in the Australasian Colonies, and a larger proportion of widows re-marry in Hungary, and a smaller in Sweden and Norway, than in any other of the countries named; also, that in Victoria widowers re-marry less frequently than in any of those countries except New Zealand, New South Wales, and Queensland; but that in eleven of these countries widows re-marry less frequently than in Victoria :—

Re-marriages in various countries.

RE-MARRIAGES IN VARIOUS COUNTRIES.*

Countries.	Widowers re-married per 1,000 Marriages.	Countries.	Widows re-married per 1,000 Marriages.
Vermont ...	209	Hungary ...	151
Hungary ...	198	Russia in Europe ...	130
Russia in Europe ...	186	Vermont ...	125
Austria ...	180	Austria ...	113
Massachusetts ...	162	Massachusetts ...	107
Finland ...	158	Finland ...	99

* The figures in this table have been derived from those contained in a table showing the proportions of marriages of persons of different conjugal conditions in various countries, for which see *Victorian Year-Book*, 1892, Vol. I., paragraph 583.

RE-MARRIAGES IN VARIOUS COUNTRIES*—*continued.*

Countries.	Widowers re-married per 1,000 Marriages.	Countries.	Widows re-married per 1,000 Marriages.
Holland	151	England and Wales ...	97
Spain	149	Holland	92
Prussia	140	Roumania	91
England and Wales ...	137	Spain	89
Switzerland	135	Prussia	88
Italy	131	New South Wales ...	85
Roumania	124	Belgium	85
Scotland	120	Victoria	80
Denmark	118	Switzerland	80
Belgium	116	Queensland	78
France	115	France	78
Ireland	112	Italy	74
Sweden	112	Denmark	72
Norway	112	Greece	72
Greece	100	South Australia ...	71
South Australia ...	98	New Zealand	71
Victoria	95	Scotland	60
New Zealand	90	Ireland	57
New South Wales ...	83	Sweden	55
Queensland	78	Norway	55

Marriages of
divorced
persons,
1893.

435. Divorced persons marrying are classified as bachelors and spinsters, unless in cases where they had become widowers or widows before contracting the marriage from which they were released by divorce. Seventeen divorced men and thirty-one divorced women re-entered the marriage state in 1893; eleven of the former married spinsters, three married widows, and three married divorced women; twenty-three of the latter married bachelors, and five married widowers; and in three instances both parties to the marriage had been divorced. At least twenty of the forty-eight divorced persons marrying in 1893 had been divorced in the last two years. In the previous year, twenty-four marriages of divorced men and twenty-seven of divorced women took place.

Number of
divorced
persons,
1891.

436. The persons returned at the census of 1891 as living in a state of divorce numbered 196, viz., 110 males and 86 females, the former being in the proportion of 1 to every 1,555 men returned as husbands, and the latter in the proportion of 1 to every 2,021 women returned as wives. At the previous census only 19 divorced persons were returned, viz., 9 males and 10 females.†

* See footnote (*) on previous page.

† For the occupations and religions of the persons returned at the census of 1891 as living in a state of divorce, see *Victorian Year-Book*, 1892, Vol. I., paragraph 508.

437. The number of males and females returned as living in a state of divorce in five Australasian Colonies when the census was taken are subjoined :—

Divorced persons in Australasian Colonies.

DIVORCED PERSONS IN FIVE AUSTRALASIAN COLONIES, 1891.

	Males.	Females.
Victoria	110	86
New South Wales	178	126
Queensland	16	7
Western Australia	3	3
Tasmania	25	6
Total	332	228

NOTE.—In South Australia and New Zealand the persons stated in the householders' schedules to be living in a state of divorce were not separately tabulated.

438. Comparing the divorced with the married persons of either sex, the following proportions are found to have existed in the different colonies :—

Proportion of divorced to married persons.

In Tasmania	there was 1 divorced man to every ...	893 husbands.
„ New South Wales	„ „ „ ...	936 „
„ Victoria	„ „ „ ...	1,554 „
„ Western Australia	„ „ „ ...	2,414 „
„ Queensland	„ „ „ ...	3,618 „
„ New South Wales	there was 1 divorced woman to every	1,315 wives.
„ Victoria	„ „ „ ...	2,021 „
„ Western Australia	„ „ „ ...	2,126 „
„ Tasmania	„ „ „ ...	3,566 „
„ Queensland	„ „ „ ...	8,228 „

439. The number of divorces which took place in each Australasian colony during 1890 and 1891 and their proportions to the married persons of either sex returned at the census were as follow :—

Divorces in Australasian Colonies.

DIVORCES IN AUSTRALASIAN COLONIES, 1890 AND 1891.

Colony.	Average Annual Number of Divorces.	Divorces per 100,000 Husbands.	Divorces per 100,000 Wives.
1. Victoria	69	40·4	40·0
2. Western Australia	2	27·6	31·3
3. New South Wales	46	27·6	27·7
4. New Zealand	21	23·2	23·1
5. Queensland	6	10·4	10·4
6. Tasmania	2	8·5	9·3
7. South Australia	3	6·1	6·1

440. If the divorces be compared with the number of marriages, the positions of the colonies remain unaltered, except that Tasmania

Marriages to each divorce in Australasian Colonies.

rises above Queensland, and occupies the fifth position on the list instead of the sixth, thus:—

MARRIAGES TO EACH DIVORCE IN EACH AUSTRALASIAN COLONY, 1890 AND 1891.

	Annual Marriages to each Divorce.	Annual Marriages to each Divorce.
1. Victoria ...	130	5. Tasmania ...
2. Western Australia ...	172	6. Queensland ...
3. New South Wales ...	178	7. South Australia ...
4. New Zealand ...	186	

441. Combining the dissolutions of marriage with the judicial separations in the Australasian Colonies for the sake of comparison with such events in other countries, the following are the numbers in some of the principal countries of the world, the proportions to the married couples living being also shown. The figures for the Australasian Colonies are those of the average of the five years ended with 1890, whilst those for the other countries are for the year 1885:—

DIVORCES AND SEPARATIONS IN VARIOUS COUNTRIES.

Country.	Divorces and Judicial Separations.		Country.	Divorces and Judicial Separations.	
	Number in One Year.*	Number per 100,000 Married Couples.		Number in One Year.*	Number per 100,000 Married Couples.
United States ...	23,472	203·0†	New South Wales	40	26·4
Switzerland ...	920	195·5	New Zealand ...	23	26·1
Denmark ...	635	184·7	Victoria ...	27	16·9
France ...	6,245	80·5	Tasmania ...	3	14·6
Germany ...	6,161	77·7	Queensland ...	6	11·1
Roumania ...	541	61·5	Russia in Europe	1,789	11·1
Holland ...	339	47·7	Italy ...	556	10·6
Austria ...	1,718	44·0	South Australia	5	10·4
Belgium ...	290	31·4	United Kingdom	508	8·6
Western Australia	2	27·8	Canada ...	12	1·6
Sweden and Norway	297	27·0			

442. According to the table, more divorces and separations take place in the United States than in all the other countries combined, there being in that country a proportion of over 200 divorces annually per 100,000 married couples living. This proportion is approached in only two other countries, viz., Switzerland and Denmark. The Australasian Colonies stand low on the list, but even South Australia has a higher rate than the United Kingdom. Strange to say, Canada,

* In the absence of official information, the numbers, except those relating to the Australasian Colonies, have been taken from a pamphlet entitled *A Divorce Problem*, by Dr. W. F. Wilcox, of Columbia College, U.S. It is possible that, in some cases, judicial separations may not be included.

† Proportion for 1880.

Divorces and separations in various countries.

High proportion of divorces in United States.

which adjoins the United States, has the lowest rate of all. Perhaps its inhabitants cross the frontier when they desire to become divorced.

443. Persons whose wives or husbands have not been heard of for a period of seven years may marry again without rendering themselves liable to be prosecuted for bigamy; but such unions are subject to the serious disadvantage that the issue by the second marriage would be illegitimate, and the marriage itself void, if it should turn out that the first husband or wife was alive at the time thereof. Three deserted persons (all females) availed themselves of this provision in 1893. Two of these married bachelors and one a widower; one had not heard of her former husband for over nine years, one for fifteen years, and the other for eighteen years. In the previous year, four deserted persons (all females) re-married. Deserted husbands and wives.

444. It may be mentioned that by the *Divorce Act 1889** (53 Vict. No. 1056), which received the Royal assent on the 13th May, 1890, it is provided that any married person domiciled in Victoria for two years and upwards may obtain a divorce, after which he or she may legally re-marry, on proving that he or she had, without just cause or excuse, been wilfully deserted, and continuously so deserted over a period of three years or upwards. *Divorce Act 1889.*

445. The marriages of 4 Aboriginal males with Aboriginal females are included in the returns of 1893. In the previous year, 6 marriages of Aborigines took place. Marriages of Aborigines.

446. Eleven Chinese males were married in Victoria in the year 1893, as against 14 in 1892, and 8 in 1891. During the twenty-seven years prior to 1893, 419 Chinamen were married in Victoria, or an average of about 16 per annum. The following table shows the nationalities of the women who formed matrimonial unions with Chinese during that period, also during the year under review :— Marriages of Chinese.

NATIONALITY OF WOMEN MARRYING CHINESE, 1866 TO 1893.

Birthplace of Wives.	Number of Marriages of Chinese Males.		
	Twenty-seven Years: 1866 to 1892.	Year 1893.	Total: 1866 to 1893.
Victoria	217†	7	224
Other Australasian Colonies	64	...	64
England and Wales	72	1	73
Scotland	17	...	17
Ireland	28	1	29

* An account of the provisions of this Act was given in the *Victorian Year-Book*, 1892, Vol. II., paragraph 256. Further particulars respecting divorces are given under the head of "Law, Crime, &c.," post
 † Two of the wives, although born in Victoria, were stated to be of the Chinese race, and four of the husbands were returned as half-caste.

NATIONALITY OF WOMEN MARRYING CHINESE, 1866 TO 1893—
continued.

Birthplace of Wives.	Number of Marriages of Chinese Males.		
	Twenty-seven years: 1866 to 1892.	Year 1893.	Total: 1866 to 1893.
Other British Possessions ...	1	...	1
France	1	...	1
Germany	2	...	2
Spain	1	...	1
The United States	2	...	2
China	4	2	6
At Sea	9	...	9
Not known	1	...	1
Total	419	11	430

Marriages
by different
sects.

447. The marriage ceremony in Victoria may be performed either by the registered clergy of any religious sect or by lay registrars. In 1893, about $93\frac{1}{3}$ per cent. of the marriages were celebrated according to the former, and about $6\frac{2}{3}$ per cent. according to the latter system. The number of lay marriages was 464. The following table gives a statement of the number and percentage of marriages celebrated by each religious denomination and by lay registrars during 1893, also the percentage in the decennial periods ended with 1880 and 1890 respectively:—

MARRIAGES BY DIFFERENT DENOMINATIONS.

Marriages performed according to the usages of the—	Marriages in 1893.		Percentage of Marriages in Ten Years.	
	Number.	Percentage.	1881 to 1890.	1871 to 1880.
Church of England	1,932	27·60	30·52	24·63
Presbyterians	1,228	17·53	17·24	20·46
Methodists*... ..	1,238	17·68	15·63	16·38
Bible Christians	176	2·51	2·00	1·69
Independents	209	2·98	4·42	5·42
Baptists	206	2·94	5·00	3·70
Lutherans	82	1·17	·93	1·02
Unitarians	2	·02	·05	·02
Calvinistic Methodists	9	·13	·06	·16
Roman Catholics	1,134	16·19	14·91	17·21
Jews	21	·30	·43	·42
Other Sects	303	4·33	1·78	1·07
Lay Registrars	464	6·62	7·03	7·82
Total	7,004	100·00	100·00	100·00

Duplicate
marriages.

448. It should be mentioned that, occasionally, a marriage is performed twice over, viz., by a lay registrar and a clergyman, or by clergymen of two different denominations. It is not always easy to

* Including Wesleyan Methodists, Primitive Methodists, and United Methodists.

detect these cases in the registers, but the circumstances occur too seldom to cause any serious disturbance in the marriage statistics. One such case, however, was noticed in 1892, and included in the returns, viz., that of a couple who had been previously married—probably outside the colony—being re-united under the form of the Roman Catholic denomination.

449. Of the 4 Aboriginal marriages which took place in 1893, 2 were solemnized according to the rites of the Lutherans, 1 of the Moravians, and 1 of the Methodists. Sects of
Aboriginals
married.

450. Of the 11 marriages of Chinese in 1893, 2 were celebrated according to the rites of the Church of England, 2 according to those of the Presbyterians, 3 according to those of the Methodists, 1 according to those of the Salvation Army, and 3 were performed by lay registrars. Sects of
Chinese
married.

451. The returns of the censuses of 1881 and 1891 afford an opportunity of comparing the number of marriages performed according to the rites of each particular denomination with the numbers of that denomination in the population; and by taking the mean of the returns of the two periods, and of the marriages which were performed in the interval between them, the same information is obtained extending over a period of ten years. The results are given in the following table, as are also those of the previous decennial period :— Marriage
by different
denomina-
tions.

PROPORTION OF MARRIAGES TO NUMBER OF EACH DENOMINATION,
1871-80 AND 1881-90.

Religious Denomination.	Persons of each Denomination (mean of 1881 and 1891).	Marriages celebrated Annually.		
		Mean of 1881 to 1890.	Proportion per 1,000 Persons living.	
			1881 to 1890.	1871 to 1880.
Church of England ...	364,237	2,332·0	6·40	4·31
Presbyterians ...	149,809	1,317·5	8·79	8·30
Methodists* ...	128,427	1,194·5	9·30	8·22
Bible Christians ...	8,119	152·6	18·80	15·48
Independents ...	20,994	337·5	16·08	14·17
Baptists ...	24,128	382·3	15·84	10·03
Lutherans ...	13,339	71·0	5·32	4·68
Unitarians ...	1,222	4·0	3·27	·92
Society of Friends ...	321	·1	·31	1·30
Calvinistic Methodists	869	4·4	5·06	7·65
Roman Catholics ...	226,036	1,140·4	5·14	4·58
Jews ...	5,395	32·6	6·04	5·34
Other Sects ...	21,928	135·7	...	...
Residue ...	36,551†	537·5‡	...	...
Total ...	1,001,375	7,642·1	7·63	6·25

* Including Wesleyan Methodists, Primitive Methodists, and United Methodists.
 † Including Buddhists, Confucians, &c., those of no denomination and of no religion, and the unspecified.
 ‡ Marriages by lay registrars.

452. It will be observed that the denominations which solemnize most marriages in proportion to their numbers in the population are the Bible Christian, the Independent, and the Baptist, in the order named. In all these cases the proportions in the ten years 1881 to 1890 were 16 per 1,000 or upwards, whilst the proportions in all the other denominations were below 10 per 1,000 persons living. In proportion to their respective numbers, the marriages performed in the ten years named according to the rites of the Church of England were much fewer than those celebrated according to the rites of the Methodists* and Presbyterians, but were more numerous than those performed according to the rites of the Roman Catholic Church, as well as those of all other denominations, except the three first named. In the last decade, as compared with the preceding one, a marked increase took place in the marriage rate amongst most denominations, the only ones showing a decrease being the Society of Friends and the Calvinistic Methodists.

453. The numbers of either sex who evinced their want of elementary education by signing the marriage register with a mark instead of in writing were as follow in 1893, the proportion of those who signed with marks to the total numbers married being also shown :—

SIGNING MARRIAGE REGISTER WITH MARKS, 1893.

Persons Married.	Numbers Married.	Signing with Marks.	
		Total Number.	Number in every 100 Married.
Bridegrooms... ..	7,004	64	·91
Brides	7,004	80	1·14
Mean	7,004	72	1·03

454. In proportion to the total numbers married, a very satisfactory increase has taken place of late years in the number of both males and females signing the marriage register in writing. With few exceptions, a constant improvement has been apparent from year to

* Including Wesleyan Methodists, Primitive Methodists, and United Methodists.

Churches which perform most marriages and vice versa.

Signing with marks.

Increased numbers signing in writing.

year—nearly every year, as compared with its predecessor, showing a smaller proportion of persons signing with marks. In 1893, the proportion of men and women signing with marks was lower than in any previous year. The following figures show the proportions so signing in 1875 and each subsequent fifth year, also in 1891, 1892, and 1893 :—

NUMBERS SIGNING WITH MARKS PER 100 MARRIED, 1875 TO 1893.

Year.	Men.	Women.	Mean.	Year.	Men.	Women.	Mean.
1875	5·48	9·43	7·46	1891	1·25	1·51	1·38
1880	4·18	4·09	4·13	1892	·96	1·19	1·08
1885	2·56	2·62	2·59	1893	·91	1·14	1·03
1890	1·50	1·53	1·52				

455. The marriages in which marks instead of writing were made use of in 1893 numbered 126 ; but in only 18 of these, or 1 in 7, did both the parties use marks. In the 108 other instances either the husband or the wife signed in writing. Thus, whereas in the case of 1 marriage in 65 either the bride or the bridegroom was unable to write, it happened in the case of only 1 marriage in 389 that neither party was able to sign the marriage register in writing.

Cases of both signing with marks.

456. Of the 11 Chinese who married in 1893, 6 signed with an ordinary cross and 5 in writing. Nine of the women they married signed in writing and 2 with a cross.

Signatures of Chinese.

457. Of the Aborigines who married in 1893, all signed in writing except in one case, in which both parties signed with a cross.

Signatures of Aborigines.

458. The proportion of persons signing with marks is found to differ according to the religious denomination. Means are afforded by the following table of observing the position of the adherents of the different sects so far as the possession of a sufficient amount of rudimentary education to enable them to write their names is concerned. The figures are those of the year 1893, and the average of the decennial periods ended with 1880 and 1890 respectively. Considerable

Signing with marks in each denomination.

improvement will be noticed in respect to all the principal denominations :—

SIGNING WITH MARKS IN EACH DENOMINATION.

Marriages performed according to the usages of the—	Number Signing with Marks in every 100 Married.								
	Year 1893.			Ten Years: 1881 to 1890.			Ten Years: 1871 to 1880.		
	Men.	Women.	Mean.	Men.	Women.	Mean.	Men.	Women.	Mean.
Church of England ...	·57	1·19	·88	1·62	1·76	1·69	4·54	6·11	5·33
Presbyterians ...	·49	1·06	·77	1·32	1·42	1·37	3·67	5·97	4·82
Methodists* } ...	·99	·99	·99	1·82	1·80	1·81	4·15	5·33	4·74
Bible Christians } ...	...	·96	·48	1·72	1·39	1·56	3·37	5·49	4·43
Independents ...	1·46	·97	1·21	1·91	2·15	2·03	3·48	5·22	4·35
Baptists ...	1·22	1·22	1·22	·56	·56	·56	1·77	4·13	2·95
Lutherans ...	...	...	...	2·86	...	1·43	1·22	6·10	3·66
Calvinistic Methodists ...	1·41	·97	1·19	3·85	3·91	3·88	10·14	15·43	12·79
Roman Catholics ...	4·76	4·76	4·76	1·84	3·12	2·48	·95	·47	·71
Jews ...	·66	·66	·66	2·27	2·07	2·17	7·01	3·79	5·40
Other Sects ...	2·15	2·38	2·26	4·56	6·68	5·62	6·60	12·93	9·77
Lay Registrars ...	·91	1·14	1·03	2·17	2·38	2·28	5·31	7·93	6·62
Total ...									

Marriages by Unitarians, Calvinists, and Jews.

459. In 53 marriages by Unitarians which took place in the twenty-three years ended with 1893, not one instance occurred of either of the parties signing with a mark ; this denomination, therefore, finds no place in the above table. In 150 marriages by Calvinistic Methodists during the same period, all but 2 of the males signed in writing, but 5 of the females signed with marks. In 418 marriages of Jews which took place prior to 1889, only 7 persons signed with marks ; but in 162 marriages of Jews celebrated since, as many as 17 persons signed with marks. On examining the returns of the last four years, it was found that most of the Jews not signing in writing were Eastern Jews, chiefly from Russia or Russian Poland.

Signing with marks in Australasian Colonies.

460. A statement of the numbers who sign the marriage register with marks is published in all the Australasian Colonies except Western Australia and Tasmania,† and from the figures given the following percentages for the five years 1888 to 1892 have been deducted. The colonies are placed in order according to the state of education thus

* Including Wesleyan Methodists, Primitive Methodists, and United Methodists.

† By returns obtained from Tasmania, it appears that, per 100 married in 1892, the proportions signing with marks were—men, 5·53; women, 4·72; mean 5·12. These proportions are much higher than those in any of the other colonies named.

displayed, the colony with the smallest proportion signing with marks being placed first, and that with the reverse last :—

SIGNING WITH MARKS IN AUSTRALASIAN COLONIES,
1888 TO 1892.

Colony.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
1. Victoria ...	1888	1·72	1·81	1·76
	1889	1·51	1·38	1·45
	1890	1·50	1·53	1·52
	1891	1·25	1·51	1·38
	1892	·96	1·19	1·08
	Mean of 5 years	...	1·39	1·48	1·44
2. New Zealand ...	1888	1·66	2·52	2·09
	1889	2·01	2·59	2·30
	1890	1·63	1·92	1·78
	1891	1·39	1·68	1·54
	1892	1·35	1·70	1·52
	Mean of 5 years	...	1·61	2·08	1·85
3. South Australia ...	1888	2·40	2·45	2·42
	1889	2·38	2·18	2·28
	1890	2·10	2·46	2·28
	1891	1·73	2·12	1·92
	1892	2·00	2·41	2·20
	Mean of 5 years	...	2·12	2·32	2·22
4. New South Wales ...	1888	3·91	3·57	3·74
	1889	3·47	3·23	3·35
	1890	2·77	2·64	2·70
	1891	3·16	2·84	3·00
	1892	3·28	2·83	3·05
	Mean of 5 years	...	3·32	3·02	3·17
5. Queensland ...	1888	3·01	4·98	4·00
	1889	2·88	3·68	3·28
	1890	2·94	3·60	3·27
	1891	3·03	3·75	3·39
	1892	2·78	3·17	2·97
	Mean of 5 years	...	2·93	3·84	3·38

461. By these figures it appears that the proportion of persons able to sign in writing is, on the average, larger in this than in any other colony. Next to Victoria in this respect is New Zealand, in which the proportion of males signing in writing in 1888 was even larger than in this colony. The colonies, generally, show improvement from year to

Victoria
the least
illiterate
colony.

year, and there is every reason to expect that in all the colonies, as the children educated under the compulsory systems established arrive at marriageable ages, it will become a rare occurrence for a marriage to be attested otherwise than in writing.

Signing with marks in various countries.

462. No returns are at hand showing the manner in which the marriage registers are signed in British Colonies other than those named and Trinidad and Jamaica. The following, however, is a statement of the numbers who signed with marks in the latest year for which the information is available in the undermentioned countries, which are arranged in order; the least illiterate country being placed first and the rest in succession:—

SIGNING WITH MARKS IN VARIOUS COUNTRIES.

Country.	Year.	Number signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
Prussia	1884	3·31	5·11	4·21
Scotland	1889	4·30	7·38	5·84
England and Wales	1890	7·19	8·31	7·75
Holland	1877	7·53	14·83	11·18
France	1882	14·39	22·62	18·50
Ireland	1890	20·36	20·86	20·61
Italy	1886	21·58	31·73	26·65
Trinidad	1891-2	...	...	50·00
Jamaica	1888-92	47·90	64·10	56·00

Countries compared as to illiteracy.

463. By comparing these figures with those in the previous table, it will appear that adult education, so far as it is indicated by signature to the marriage register, is more forward in the Australasian Colonies* than in any of the countries named. It will further be remarked that the proportion signing with marks in Prussia is much smaller than in any of the other countries named. Scotland comes next to Prussia, but it is more illiterate by over one-third. Holland, which comes next to Scotland and England, would doubtless rank higher were it not that the latest return available dates as far back as 1877, when adult education was probably not so advanced as it is now. The very large proportion signing with marks in France, Ireland, Italy, and the two West India Islands attracts particular attention.

Ages of bride-grooms and brides in combination.

464. The age of both bridegroom and bride was specified in the case of all but 39 of the 7,004 marriages which took place in 1893. In 32 of the defective entries the age of neither party was given; in one case

* In Tasmania, the statistics of which for one year are given in a footnote *supra*, the proportion of men unable to sign in writing appears to be higher than in Prussia or Scotland.

the age of the husband was stated, but not that of his wife ; and in six instances the age of the wife was given, but not that of the husband. The following table shows the ages of the husbands and of the wives in combination :—

AGES OF BRIDEGROOMS AND BRIDES IN COMBINATION, 1893.

Ages of Husbands.	Ages of Wives.																Total Husbands.		
	15 to 16.	16 to 17.	17 to 18.	18 to 19.	19 to 20.	20 to 21.	21 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.		70 to 75.	Unspecified.
16 to 17	1	1
17 to 18	1	1
18 to 19	1	2	3	...	1	1	1	9
19 to 20	3	7	9	5	3	6	4	37
20 to 21	3	6	12	18	15	26	5	1	86
21 to 25 ...	7	23	65	112	176	161	979	227	31	7	3	1	...	...	...	...	...	1,792
25 to 30 ...	1	8	35	76	120	170	1,202	866	159	37	4	3	...	...	...	...	1	2,682
30 to 35 ...	1	1	8	19	31	57	411	482	204	46	17	5	2	...	...	...	...	1,284
35 to 40 ...	1	...	4	5	12	11	96	159	88	61	17	8	4	...	...	...	...	466
40 to 45 ...	...	1	1	...	3	5	23	53	53	39	13	1	2	...	1	...	...	195
45 to 50 ...	...	...	2	...	3	1	14	15	23	20	16	8	7	1	...	...	...	110
50 to 55 ...	...	...	...	...	1	...	7	9	23	13	22	16	9	2	...	...	1	103
55 to 60 ...	...	...	...	...	1	...	1	8	12	6	16	6	7	7	4	...	...	68
60 to 65 ...	...	...	1	...	...	...	1	9	5	1	9	11	20	7	8	2	1	75
65 to 70 ...	...	...	...	...	...	...	...	5	1	1	5	8	2	8	3	2	...	35
70 to 75 ...	...	...	...	...	...	...	2	1	1	1	2	2	3	...	...	1	1	14
75 to 80 ...	...	...	...	...	...	...	...	...	1	2	2	...	...	1	1	...	1	8
Unspecified	...	...	...	1	1	1	2	...	...	...	...	1	...	...	...	...	32	38
Total Wives	10	40	133	237	371	425	2,771	1,844	602	234	126	70	56	26	17	5	4	33	7,004

NOTE.—This table may be read thus:—Seven men between 21 and 25 married girls between 15 and 16 ; five women between 25 and 30 married men between 20 and 21, &c.

465. An examination of the 6,965 cases in which the ages of both parties are specified will show that in 2,182 instances, or 31 per cent. of the whole, both parties to the marriage were about the same age ; in 642 instances, or 9 per cent. of the whole, the wife was older than the husband ; and in 4,141 instances, or 60 per cent. of the whole, the husband was older than the wife. Relative ages of husband and wife.

466. Some striking inequalities of age amongst the parties married appear in several of the columns, as, for instance, a man between 40 and 45 married a girl between 16 and 17 ; one between 60 and 65 married a girl between 17 and 18 ; two between 70 and 75 married women between 21 and 25 ; and one between 75 and 80 married a woman between 30 and 35. On the other hand, a woman between 45 and 50 married a man between 21 and 25 ; two women between 50 and 55 married men between 30 and 35 ; a woman between 70 and 75 married a man between 50 and 55. Inequalities of age.

Extreme
ages of
marriage.

467. It will be noticed that one youth aged 16 and one aged 17 took upon themselves the cares and responsibilities of matrimony, their brides being each 17 years of age; also that nine youths aged 18 and 37 aged 19 undertook similar responsibilities, the wives of three of the former and thirteen of the latter being, however, somewhat older than themselves. On the other hand, it will be remarked that eight men who had passed the age of 75, and four women who had passed the age of 70, entered the marriage state, the partners of five of the former being under 45 years old.

Age at
which mar-
riage is
contracted.

468. The next table has been designed for the purpose of showing the ages at which persons of either sex generally marry in Victoria,* the information being given for the year 1893, and for the decennial period 1881 to 1890:—

PROPORTION OF MALES AND FEMALES MARRYING AT DIFFERENT AGES, 1881-90 AND 1893.

Ages.	Bridegrooms.			Brides.		
	Numbers, 1893.	Proportions per 1,000.		Numbers, 1893.	Proportions per 1,000.	
		Year 1893.	Ten Years, 1881-90.		Year 1893.	Ten Years, 1881-90.
Under 15 years...	...	...	...	...	...	·15
15 to 16 „ ...	...	...	...	10	1·43	1·17
16 to 17 „ ...	1	·14	·03	40	5·74	6·53
17 to 18 „ ...	1	·14	·29	133	19·08	20·32
18 to 19 „ ...	9	1·29	1·46	237	34·00	42·94
19 to 20 „ ...	37	5·31	5·62	371	53·22	65·03
20 to 21 „ ...	86	12·35	15·19	425	60·97	73·84
21 to 25 „ ...	1,792	257·25	321·02	2,771	397·51	432·34
25 to 30 „ ...	2,682	385·02	365·48	1,844	264·52	223·83
30 to 35 „ ...	1,284	184·32	134·57	602	86·36	62·07
35 to 40 „ ...	466	66·90	58·29	234	33·57	29·53
40 to 45 „ ...	195	27·99	32·54	126	18·07	17·10
45 to 50 „ ...	110	15·79	24·77	70	10·04	12·23
50 to 55 „ ...	103	14·79	18·40	56	8·03	6·74
55 to 60 „ ...	68	9·76	11·49	26	3·73	3·40
60 to 65 „ ...	75	10·77	6·11	17	2·44	1·90
65 to 70 „ ...	35	5·02	3·05	5	·72	·63
70 and upwards	22	3·16	1·69	4	·57	·25
Total ...	6,966†	1,000·00	1,000·00	6,971†	1,000·00	1,000·00

Frequency
of marriage
at 21 to 30.

469. The large proportion of both sexes marrying at between 21 and 30 years of age is very marked; thus in 1893 about two-thirds of either sex who married were between those ages. These proportions are somewhat lower than those shown by an average extending over the last ten years.

* For table showing the proportion of males and females marrying at different ages in various countries, see *Victorian Year-Book*, 1892, Vol. I., paragraph 543.

† The bridegrooms and brides of unspecified ages being omitted, these numbers are less than those in the last table, the bridegrooms by 38 and the brides by 33.

470. In the case of the marriages of Chinese which took place in 1893, all the men were older than the females with whom they formed unions. None of the former were under 28 years of age, but of the latter, five had not reached the age of 21. The following table shows the ages of the Chinese bridegrooms and of their brides in combination :—

Ages of Chinese bridegrooms and their brides.

AGES OF CHINESE BRIDEGROOMS AND THEIR BRIDES IN COMBINATION, 1893.

Ages of Bridegrooms.	Ages of Brides.								Total Bridegrooms.
	17.	18.	19.	21.	22.	23.	29.	32.	
28	1	...	...	1
31	1	1	...	...	...	...	2
32	1	...	...	...	1
33	1	...	...	...	...	1
36	1	...	...	...	...	...	...	1
39	1	...	...	...	...	...	1
40	1	...	...	...	...	...	1
45	1	...	...	...	...	...	...	...	1
47	1	...	1
50	1	1
Total Brides	1	1	3	2	1	1	1	1	11

471. Of the four male Aborigines who married in 1893, two were bachelors and two widowers, and of their partners three were spinsters and one a widow. The ages of bridegroom and bride were set down as follow:—25 and 19, 28 and 21, 31 and 20, 48 and 48.

Ages of Aborigines marrying.

472. In almost all civilized countries, minors are not permitted to marry without the consent of their parents or guardians, but the youngest age at which persons may marry after obtaining such consent varies in different countries, ranging from 14 for males and 12 for females in the United Kingdom, Switzerland, Spain, Portugal, Greece, and the Roman Catholic portion of the population of Hungary, to 21 for males and 18 for females in the United States.* The minimum age in Victoria is the same as in the United Kingdom, viz., 14 for males and 12 for females ; but, as a matter of fact, marriages are seldom contracted at such early ages. Eleven of the males, however, who married in 1893 had not completed their nineteenth year. Of the brides, ten had not completed their sixteenth, and 40 more had not completed their seventeenth year. As many as 134 of the males, or one in every 52, and no fewer than 1,216 of the females, or over a sixth, had not attained the full age of 21 years.

Marriages of minors.

* For table showing the minimum legal age of marriage in various countries, see *Victorian Year-Book*, 1889-90, Vol. I., paragraph 500.

Marriages of minors in Victoria and England.

473. From the experience of Victoria during the year 1893, and the decades 1871-80 and 1881-90, it would appear that, in proportion to the total numbers marrying, the males who marry under age are much less numerous in this colony than in England and Wales. The proportion of females marrying under age, which was formerly higher in Victoria than in England, has fallen considerably, and in 1893, as well as in the previous decennial period, was lower than in England. This is shown by the figures in the following table* :—

MARRIAGES OF MINORS IN VICTORIA AND ENGLAND AND WALES.

Persons Married.	In every 100 Marriages, Numbers under 21 Years of Age.			
	In Victoria.			In England and Wales. Ten Years : 1871 to 1880.
	Year 1893.	Ten Years : 1881 to 1890.	Ten Years : 1871 to 1880.	
Bridegrooms ...	1·91	2·26	2·52	7·95
Brides ...	17·36	21·00	28·32	21·96
Mean ...	9·63	11·63	15·42	14·96

Youthful husbands in Australasian Colonies.

474. According to the census of 1891, the tendency of males to marry under age appears to be greater in Tasmania, and less in New Zealand, than in any of the other Australasian Colonies, Victoria standing immediately above the latter. The following is the order in which the colonies stood in this particular, the colony in which the proportion of husbands under age was largest being placed first, and the rest in succession:—

HUSBANDS UNDER AND OVER 21 YEARS OF AGE IN EVERY 10,000 HUSBANDS LIVING IN EACH COLONY, 1891.
(Exclusive of Aborigines.)

	Under 21 Years.	Over 21 Years.
1. Tasmania ...	34	9,966
2. Western Australia ...	28	9,972
3. New South Wales ...	24	9,976
4. South Australia ...	21	9,979
5. Queensland ...	20	9,980
6. Victoria ...	16	9,984
7. New Zealand ...	12	9,988

Youthful husbands in Australasia.

475. In continental Australia 20 in 10,000 of the husbands were under 21 years of age, and in continental and insular Australia combined 19 in 10,000 were under that age.

Youthful wives in Australasian Colonies.

476. The proportion of females marrying under age would seem to be greatest in Western Australia, closely followed by Queensland, and at no great distance by New South Wales. Victoria stands fifth

* For a comparison of the marriages of minors with marriageable minors, see *Victorian Year-Book*, 1889-90, Vol. I., paragraphs 503 to 506.

in this respect, and South Australia last. The following are the proportions of wives under and over 21 years old as returned in each colony, the colonies being placed in order according to the former proportion:—

WIVES UNDER AND OVER 21 YEARS OF AGE IN EVERY 10,000 WIVES IN EACH COLONY, 1891.
(Exclusive of Aborigines.)

			Under 21 Years.		Over 21 Years.
1. Western Australia	...	...	326	...	9,674
2. Queensland	...	...	325	...	9,675
3. New South Wales	...	...	316	...	9,684
4. Tasmania	...	...	276	...	9,724
5. Victoria	...	...	198	...	9,802
6. New Zealand	...	...	183	...	9,817
7. South Australia	...	...	163	...	9,837

477. In Australia as a whole 256 in 10,000, and in Australasia as a whole 245 in 10,000, of the married women were under 21 years of age. Youthful wives in Australasia.

478. The births registered in Victoria during 1893 numbered 36,552, as against 37,831 in 1892. The decrease in the year under review, as compared with the previous one, was thus 1,279. Births, 1893.

479. During the twenty years ended with 1883, the number of births in Victoria had remained almost stationary; but in 1884 a marked increase took place, which continued during the seven subsequent years, the number of births in 1891 being the highest recorded.* There was, however, a falling-off of 674 in 1892, and a further falling-off of 1,279 in 1893, as just stated. Births in 1893 and former years.

480. In proportion to population, the births decreased steadily for a number of years. The lowest point (30·06 per 1,000) was reached in 1882, since which year there was a gradual improvement until 1890 and 1891; as compared with the latter, however, there was a falling-off per 1,000 persons, viz., of 1 birth in 1892, and of 2½ births in 1893. The following are the birth rates for 1860 and each subsequent fifth year, also in 1891, 1892, and 1893:— Birth rate.

ANNUAL BIRTH RATE,† 1860 TO 1893.

Births per 1,000 of Mean Population.			Births per 1,000 of Mean Population.		
1860 ...	...	42·81	1890 ...	...	33·60
1865 ...	...	42·40	1891 ...	...	33·57
1870 ...	...	38·07	1892 ...	...	32·54
1875 ...	...	33·94	1893 ...	...	31·23
1880 ...	...	30·75			—
1885 ...	...	31·33	Mean of 34 years	...	35·60

* For number of births in each year, see Statistical Summary of Victoria (first folding sheet), to be published later on.

† For the birth rate of each of the 32 years ended with 1891, see *Victorian Year-Book*, 1892, Vol. I., paragraph 547.

Proportion of births to population and to married women.

481. Birth rates, based upon a comparison of the number of events with the total population, are, like marriage rates calculated upon a similar basis, apt to mislead, unless the population is in a normal condition. It must be quite evident that, if there is not a sufficient proportion of married women at the fruitful or child-bearing ages in a community, the birth rate is not likely to be high, but that an excess of such women would probably cause a high birth rate. This will be made apparent by the following table, which shows the birth rate, calculated upon the total population and upon the number of married women at the child-bearing period of life, according to the censuses of 1871, 1881, and 1891:—

PROPORTION OF BIRTHS TO POPULATION AND TO MARRIED WOMEN.

Year of Census.	Enumerated Population.	Married Women under 45 Years of Age.	Legitimate Births.*	Proportion of Legitimate Births.	
				Per 1,000 of the Population.	Per 1,000 Married Women under 45 Years of Age.
1871	731,528	88,561	26,805	36·64	302·67
1881	862,346	84,831	25,675	29·77	302·66
1891	1,140,405	120,700	35,853	31·44	297·04

Reason for fluctuation of birth rate.

482. It will be noticed that although the proportion of legitimate births per 1,000 of the population fluctuated considerably at the three periods, the proportion per 1,000 of the married women at reproductive ages remained tolerably uniform, being 297 per 1,000 in 1891 as compared with 302 $\frac{2}{3}$ per 1,000 at each of the two former periods. The increase in the birth rate, calculated in the ordinary way, since 1881, is therefore found to be due merely to an increase in the proportion of married women in the community at the fruitful period of life.

Birth rates in Australasian Colonies.

483. Returns of the births in all the Australasian Colonies are available to the end of 1893, and from these and the mean populations of the respective colonies during each year the birth rates have been calculated in the office of the Government Statist, Melbourne. The following table gives the birth rates of the different colonies for 1865

* In each case these are the legitimate births which occurred during the twelve months of which the census was the middle.

and each subsequent fifth year until 1890, also for 1891, 1892, and 1893:—

BIRTH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1893.*

Year.	Number of Births per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	42·40	43·21	43·65	43·90	...	32·56	41·12
1870 ...	38·07	40·09	43·51	38·48	...	30·18	42·32
1875 ...	33·94	38·53	38·90	35·70	28·72	29·88	40·23
1880 ...	30·75	38·80	36·92	38·94	32·35	32·91	40·78
1885 ...	31·33	37·79	37·80	38·47	35·22	36·18	34·78
1890 ...	33·60	35·36	39·93	32·63	34·69	33·49	29·44
1891 ...	33·57	34·50	36·35	33·92	34·85	33·37	29·01
1892 ...	32·54	33·90	35·84	32·32	33·01	32·48	27·83
1893 ...	31·23	33·23	33·73	31·76	33·79	33·92	27·50
Mean of 29 years }	34·25	38·20	39·22	37·37	34·34†	32·22	37·29

484. In 1893 the birth rate was below the average in all the colonies except Tasmania. In New South Wales, Queensland, South Australia, and New Zealand the rate was absolutely the lowest recorded during the whole period of 29 years, that for the last-named colony ($27\frac{1}{2}$ per 1,000), moreover, being the lowest recorded in any Australasian colony since 1864. In Victoria the rate was lower than in the previous eight years; in Western Australia it was lower than in any other year since 1884, except 1892; and in Tasmania it was slightly higher than in 1892.

Low birth rates in Australasian Colonies in 1893.

485. The following is the order of the colonies in reference to their respective birth rates in the last year shown in the table and according to the average of the whole period of 29 years. It will be observed that Victoria stands sixth on the list for 1893, and also sixth in the 29 year series:—

Order of colonies in respect to birth rates.

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO BIRTH RATES.

Order in 1893.	Order in a Series of Years.
1. Western Australia.	1. Queensland.
2. Tasmania.	2. New South Wales.
3. Queensland.	3. South Australia.
4. New South Wales.	4. New Zealand.
5. South Australia.	5. Western Australia.
6. Victoria.	6. Victoria.
7. New Zealand.	7. Tasmania.

* For the number of births in the various colonies during the 21 years ended with 1893, see General Summary of Australasian Statistics (third folding sheet) post, to be published later on. For the birth rates of those colonies in each of the 27 years ended with 1891, see *Victorian Year-Book*, 1892, Vol. I., paragraph 550.

† Mean of nineteen years.

Birth rate in
Australia
and
Australasia.

486. On the continent of Australia, taken as a whole, the birth rate in 1893 was the lowest recorded during the last 21 years; and on that continent combined with Tasmania and New Zealand it was also the lowest during the whole period. The following are the figures for the period referred to :—

BIRTH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1893.

Year.	Number of Births per 1,000 of Mean Populations.		Year.	Number of Births per 1,000 of Mean Populations.	
	Continent of Australia.	Australia with Tasmania and New Zealand.		Continent of Australia.	Australia with Tasmania and New Zealand.
1873	...	37·36	1885	...	35·41
1874	...	36·46	1886	...	35·11
1875	...	35·29	1887	...	35·36
1876	...	35·20	1888	...	35·38
1877	...	34·15	1889	...	34·62
1878	...	34·31	1890	...	34·97
1879	...	34·55	1891	...	34·34
1880	...	35·33	1892	...	33·43
1881	...	35·22	1893	...	32·38
1882	...	34·24			
1883	...	34·50	Means	...	34·90
1884	...	35·25			34·92

Birth rates
in British
Possessions.

487. The birth rates in certain British Colonies outside Australasia including all those for which the information is available, are shown in the following table. The low birth rate in Hong Kong is probably owing to the small proportion of women in the population, the bulk of which consists of Chinese males. In Mauritius and Jamaica, considerably more than half the births are stated to be illegitimate :—

BIRTH RATES IN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Births per 1,000 of the Population.
Malta ...	1892	39·4
Gibraltar ...	1892	25·3
Ceylon ...	1892	29·8
Straits Settlements ...	1892	23·8
Hong Kong ...	1892	8·0
Mauritius ...	1892	40·0
Seychelles ...	1886	39·8
Sierra Leone ...	1887-9	17·9
Nova Scotia ...	1871-5	32·0

BIRTH RATES IN BRITISH POSSESSIONS—*continued.*

Colonies.	Years.	Number of Births per 1,000 of the Population.
Bermuda	1892	36·0
British Guiana	1892	28·0
West Indies—		
Bahamas	1892	41·9
Jamaica	1891–2	38·7
St. Lucia	1892	37·6
St. Vincent	1892	44·8
Barbados	1892	38·3
Grenada	1892	45·1
Antigua	1892	34·5
Montserrat	1892	42·3
Dominica	1892	30·3
Trinidad and Tobago	1892	33·8

488. A statement of the birth rates in the United Kingdom, and certain Foreign countries, for each of the five years ended with 1892, is given in the following table. The figures have been taken from the reports of the Registrar-General of England or other official sources:—

Birth rates in European countries.

BIRTH RATES IN EUROPEAN* COUNTRIES, 1888 TO 1892.

Countries.	Number of Births per 1,000 of Mean Population.					
	1888.	1889.	1890.	1891.	1892.	Mean of 5 Years.
Hungary	43·8	43·7	40·3	...	...	42·6†
Austria	37·9	37·9	36·7	38·1	36·2	37·4
Italy	37·6	38·4	35·9	37·3	36·3	37·1
Prussia	37·4	37·1	36·6	37·7	36·3	37·0
German Empire	36·6	36·4	35·7	37·0	35·7	36·3
Holland	33·7	33·2	32·9	33·7	32·0	33·1
England and Wales	31·2	31·1	30·2	31·4	30·5	30·9
Scotland	31·3	30·9	30·2	31·2	30·7	30·9
Norway	30·8	29·7	30·3	30·9	29·6	30·3
United Kingdom	30·1	30·0	29·2	30·4	29·5	29·8
Belgium	29·1	29·5	28·7	29·6	28·9	29·2
Japan	30·0	30·5	28·5	26·8	...	29·0‡
Sweden	28·8	27·7	28·0	...	...	28·2†
Switzerland	27·7	27·6	26·6	28·2	28·0	27·6
Ireland	22·8	22·7	22·3	23·1	22·4	22·7
France	23·1	23·0	21·8	22·6	22·1	22·5

NOTE.—In Russia in Europe in 1886 the rate was 46·5, in Poland 37·8, and in Finland 34·6.

* Japan is also included.

† Mean of three years.

‡ Mean of four years.

Low birth rates in France and Ireland.

489. Comparing this table with that showing the marriage rates in the same countries, it is found that a high birth rate is generally concurrent with a high marriage rate, and *vice versâ*. A notable exception to this is France, in which, although the marriage rate is high, the birth rate is lower than any of the countries named except Ireland, in which it is about the same. The low rate in the latter is attributed to the small proportion of women at child-bearing ages in the population,* but the low birth rate in France cannot be accounted for by any such cause, as it is stated that the proportion of women at the reproductive period of life is higher in that than in any other European country; the chief though indirect cause is said to be—"the subdivision of land among the peasant proprietors. The better class of the labouring population aspire to become proprietors of small holdings; by thrift and industry they accumulate capital for this purpose, and avoid by their social philosophy the division of their property among a large family at their decease."†

Australasian and European birth rates compared.

490. In the same five years the mean birth rate in Queensland was above that in any of the European countries referred to in the table, except Hungary; that in New South Wales, Western Australia, Tasmania, and Victoria above that in any except the country just named, together with Austria, Italy, Prussia, and the German Empire; the mean birth rate in South Australia was below that in those five European countries, with the addition of Holland; the mean birth rate in New Zealand was below that in any of the countries named in the table, except Belgium, Japan, Sweden, Switzerland, Ireland, and France. The following are the birth rates referred to:—

MEAN BIRTH RATES IN AUSTRALASIAN COLONIES, 1888 TO 1892.

						Number of Births per 1,000 of Mean Population.
Queensland	...	...	...	...	...	38·01
New South Wales	...	...	...	...	...	35·19
Western Australia	...	...	...	...	...	35·11
Tasmania	...	...	...	...	...	33·62
Victoria	...	...	...	...	...	33·15
South Australia	...	...	...	...	...	33·08
New Zealand	...	...	...	...	...	29·53

* See 15th Detailed Report of the Registrar-General of Ireland, pages 12 and 29. For many years the registration of births in Ireland was admitted to be defective, but Dr. T. W. Grimshaw, the Registrar-General of that country, in a letter addressed to the Government Statist of Victoria, dated 6th May, 1886, stated that since the passing of the Public Health Amended Vaccination and Registration Acts (1878 to 1880) this is no longer the case, and the births occurring in Ireland are now very well recorded. It may be remarked, however, that this improvement has not been accompanied by any improvement in the birth rate as calculated from the published figures.

† See 41st Report of the Registrar-General of England, page xlvi.

491. The following table shows the births and birth rates, together with the estimated mean population in the metropolis, the extra-metropolitan towns, and the country districts of Victoria during 1893; also the average birth rates in the same divisions during the ten years ended with 1890:—

Birth rates in town and country, 1893.

BIRTHS IN URBAN AND COUNTRY DISTRICTS, 1893.

Districts.	Estimated Mean Population, 1893.	Births.		
		Total Number, 1893.	Number per 1,000 of the Population.	
			1893.	Annual Mean, 1881 to 1890.
Melbourne and Suburbs (Greater Melbourne)	457,230	15,338	33.55	35.58
Extra-Metropolitan Towns	193,810	6,495	33.51	32.79
Country Districts ...	519,290	14,719	28.34	28.18
Total ...	1,170,330	36,552	31.23	31.38

492. The next table shows the number of births per 1,000 of the population of the same three divisions of the colony for 1875 and each subsequent fifth year, also for 1891, 1892, and 1893:—

Birth rates in town and country, 1875 to 1893.

BIRTH RATES IN URBAN DISTRICTS, 1875 TO 1893.

Year.	Number of Births per 1,000 of the Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1875 ...	33.63	38.63	31.54	33.94
1880 ...	31.19	34.21	28.72	30.75
1885 ...	34.94	31.87	28.12	31.33
1890 ...	37.71	34.43	28.93	33.60
1891 ...	36.64	35.00	29.68	33.57
1892 ...	36.13	34.97	28.01	32.54
1893 ...	33.55	33.51	28.34	31.23

493. It will be noticed that in 1875 and 1880 the proportion of births in extra-metropolitan towns was higher than that in the metropolis, but at all subsequent periods the metropolitan rate has been the higher, and, moreover, that at all the periods the rate in the country

Results compared.

districts has been lower than that in either the metropolitan district or the extra-metropolitan towns.

Birth rates
in metro-
politan sub-
districts.

494. The mean population, the number of births, and the birth rate during 1893, also the mean annual birth rate during the ten years 1881 to 1890, in the different municipalities, &c., forming the component parts of the district of Greater Melbourne are shown in the following table:—

BIRTHS IN GREATER MELBOURNE.

Sub-districts.	Estimated Mean Population, 1893.	Births.		
		Total Number, 1893.	Number per 1,000 of the Population.	
			1893.	Annual Mean, 1881 to 1890.
Melbourne City	65,953	1,439	21·82	25·39
North Melbourne Town... ..	20,763	701	33·76	40·90
Fitzroy City	29,190	854	29·26	34·38
Collingwood City	31,705	1,089	34·35	39·57
Richmond City	32,348	1,222	37·78	38·65
Brunswick Town	20,500	828	40·39	44·83
Northcote Town	6,799	313	46·04	39·21
Prahran City	37,090	1,078	29·06	33·51
South Melbourne City	37,019	1,166	31·50	34·83
Port Melbourne Town	12,105	495	40·89	42·11
St. Kilda City	19,235	449	23·34	25·97
Brighton Town	9,656	274	28·38	31·01
Essendon Town	13,940	530	38·02	33·09
Flemington & Kensington Borough	10,130	376	37·12	39·68
Hawthorn City	18,675	582	31·16	33·23
Kew Borough	7,132	212	29·73	26·98
Footscray City	17,330	830	47·89	46·01
Williamstown Town	15,205	589	38·74	37·85
Oakleigh Borough	1,120	44	39·29	} 33·66
Caulfield Shire	8,380	222	26·49	
Malvern Shire	8,875	247	27·83	
Boroondara Shire	6,430	164	25·51	
Preston Shire	3,210	115	35·83	
Coburg Shire	5,560	166	29·86	
Remainder of District	12,788	506	39·57	
Shipping in Hobson's Bay and River	1,965	...	...
Total	453,103	14,491	31·98	34·09
Hospitals, Asylums, &c.*	4,127	847	1·85†	1·49†
Grand Total	457,230	15,338	33·55	35·58

NOTE.—It should be specially noted that the births in public institutions are eliminated from the individual sub-districts, although included in the total line.

* The population given is that of all the institutions, but the Women's Hospital is the only one in which births occurred.

† Per 1,000 of the population of the whole of Melbourne and Suburbs.

495. It will be observed that during the ten years ended with 1890 the births in four municipalities, viz., North Melbourne, Brunswick, Port Melbourne, and Footscray, averaged above 40 per 1,000 of the population; that in five municipalities, viz., Collingwood, Richmond, Northcote, Flemington, and Williamstown, they were between 35 and 40 per 1,000; in seven municipalities, viz., Fitzroy, Prahran, South Melbourne, Brighton, Essendon, Hawthorn, and "Remainder of District," they were between 30 and 35 per 1,000; and that in three municipalities, viz., Melbourne City, St. Kilda, and Kew, they were below 30 per 1,000. The lowest rate was in Melbourne City, viz., $25\frac{1}{3}$ per 1,000.

Birth rates in sub-districts, 1881 to 1890.

496. During 1893, the birth rates in all the sub-districts except Northcote, Footscray, Essendon, Kew, and Williamstown were lower than they were in the ten years ended with 1890, but this was more particularly noticeable in North Melbourne and Fitzroy. The sub-districts with the highest birth rates in 1893 were Footscray with 48, Northcote with 46, Port Melbourne with nearly 41, and Brunswick with 40 per 1,000; those with the lowest rates were Melbourne City, St. Kilda, and Boroondara, in which the respective rates were only 22, 23, and 26 per 1,000.

Birth rates in sub-districts, 1893.

497. In 1893 the birth rate in Melbourne was lower than that in Perth or Hobart, but above that in Sydney, Adelaide, Brisbane, or Wellington, as is shown in the following table, which gives, for that year, a statement of the estimated population and the number of births, and number per 1,000 of the population, in each of those capital cities:—

Births in Australasian capitals.

BIRTHS IN AUSTRALASIAN CAPITAL CITIES, 1893.

Capital Cities.*	Estimated Mean Population.	Births, 1893.	
		Total Number.	Number per 1,000 of the Population.
1. Perth	11,770	541	45·96
2. Hobart	35,000	1,198	34·23
3. Melbourne	457,230	15,338	33·55
4. Sydney	416,370	13,945	33·49
5. Brisbane	104,560†	3,454	33·03
6. Adelaide	138,658	4,568	32·94
7. Wellington	37,656	1,062	28·20

* With suburbs.

† Estimated.

Birth rate
in London.

498. The average birth rate in the Australasian capital cities in 1893 was 33·4, that being but slightly higher than the rate in London according to the average of the ten years 1881–90, viz., 33·2, which was somewhat higher than that of England and Wales (32·5) during the same period. The rate in London was thus higher than that in Adelaide, Brisbane, or Wellington, but below that in any of the other Australasian cities named in the last table.

Birth rates
in Scotch
towns.

499. In the year 1890 the birth rate of the principal towns of Scotland was 32·40; of the large towns, 32·23; and of the small towns, 32·96. All these rates are below the mean birth rate of the Australasian capital cities or than the birth rate of Melbourne.

Birth rates
in British
towns.

500. By comparing the following statement of the birth rates in British towns during 1887 with the figures in the last column of the last table, it will be found that the birth rate is higher in Perth than in any of those towns; in Hobart than in any except Cardiff, Newcastle, Preston, Glasgow, Portsmouth, Manchester, Blackburn, and Sunderland; in Melbourne and Sydney than in any except those towns and Norwich; in Brisbane and Adelaide than in any except those named and Nottingham and Wolverhampton; whilst in Wellington it is lower than in any of those towns except Brighton, Huddersfield, Bradford, and Dublin:—

BIRTH RATES IN TOWNS, 1887.

Births per 1,000 of the Population.			Births per 1,000 of the Population.		
Cardiff	...	41·1	28 British towns	...	32·2
Newcastle	...	39·1	Salford	...	31·9
Preston	...	38·5	Birmingham	...	31·8
Glasgow	...	37·0	London	...	31·7
Portsmouth	...	36·8	Plymouth	...	31·5
Manchester	...	35·9	Oldham	...	31·3
Blackburn	...	35·8	Liverpool	...	31·2
Sunderland	...	34·6	Derby	...	30·0
Norwich	...	33·9	Bristol	...	29·7
Nottingham	...	33·3	Edinburgh	...	29·3
Wolverhampton	...	33·2	Halifax	...	28·4
Sheffield	...	32·9	Dublin	...	28·0
Leicester	...	32·8	Bradford	...	27·7
Bolton	...	32·5	Huddersfield	...	27·7
Birkenhead	...	32·5	Brighton	...	25·8

Birth rates
in Foreign
towns.

501. Comparing the birth rates in the following Foreign towns (including two in British India) with those in the capital cities of

Australasia, it will be found that the birth rate in Perth is above the rate in any of the towns named, but in Hobart it is below that in all but 11, in Melbourne, Sydney, Brisbane, and Adelaide than in all but 10, and in Wellington than in all but 5 :—

BIRTH RATES IN FOREIGN TOWNS, 1880.

	Births per 1,000 of Population.		Births per 1,000 of Population.
Alexandria ...	42·9	Dresden ...	34·5
Madras (1887) ...	41·2	Christiania ...	33·7
Buda-Pesth ...	40·6	Berlin (1889) ...	32·8
Hamburg (State) ...	39·5	Brussels ...	31·2
The Hague ...	39·3	New York ...	30·4*
Rotterdam ...	38·3	Turin ...	29·8
Vienna ...	38·3	Boston (1883) ...	28·3
Munich ...	38·2	Paris (1887) ...	27·2
Rome ...	37·3	Venice ...	23·9
Copenhagen ...	36·8	Geneva ...	22·9
Breslau ...	36·7	Bombay ...	20·0
Amsterdam ...	36·6	Baltimore (1889) ...	18·7

502. The following are the birth rates in seven Victorian towns during 1893 ; the rate in the metropolis being, as will be observed, below that in Stawell, Warrnambool, Bendigo, and Geelong, but above that in Castlemaine or Ballarat :—

BIRTH RATES IN SEVEN VICTORIAN TOWNS, 1893.

	Births per 1,000 of Population.		Births per 1,000 of Population.
1. Stawell ...	48·87	5. Melbourne ...	33·55
2. Bendigo (Sandhurst) ...	38·82	6. Ballarat ...	33·46
3. Warrnambool ...	35·76	7. Castlemaine ...	32·36
4. Geelong ...	34·88		

503. The births of males in Victoria during 1893 numbered 18,823, those of females 17,729. These numbers furnish a proportion of 106·17 boys to 100 girls. In 1892 the proportion was 105·31, in 1891 103·66, in 1890 104·19, and in 1889 106·05 ; whilst in the ten years 1881–90, 160,057 births of males and 152,508 births of females were registered, giving a proportion of 104·95 boys to 100 girls.

504. In every country in which births are registered, it is found that more boys are born than girls. This was the case in all the Australasian Colonies during the period of twenty-one years ended with

* The number of births registered in New York would give a proportion of 22·8 per 1,000 of the population, but it is officially stated that the registered births are 25 per cent. below the actual number which takes place, so that the correct proportion is as here stated.

1893, although not in every one of those years so far as South Australia, Western Australia, and Tasmania are concerned. The following are the numbers of boys per 100 girls born in the respective colonies during 1875, and in each subsequent fifth year, also in 1891, 1892, and 1893:—

PROPORTION OF MALE TO FEMALE BIRTHS IN AUSTRALASIAN COLONIES, 1875 TO 1893.*

Year.	Number of Boys to 100 Girls Born.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1875 ...	104·95	102·08	104·01	103·85	98·95	109·51	107·80
1880 ...	104·44	104·99	103·63	110·98	92·37	101·56	104·71
1885 ...	106·44	104·88	102·50	101·57	108·00	104·36	103·59
1890 ...	104·19	104·27	102·19	101·56	95·13	105·07	103·43
1891 ...	103·65	106·89	104·12	104·28	110·61	101·99	105·41
1892 ...	105·31	105·24	108·00	98·31	107·87	108·88	103·72
1893 ...	106·17	106·97	104·52	103·91	97·38	107·23	104·88

Order of colonies in respect to sexes of those born.

505. In the Australasian Colonies, taken as a whole, the proportion during the four years ended with 1893 was 104·3 male to 100 female infants. In the different colonies, the proportions ranged from 105·8 males per 100 females in New South Wales to 102·01 males per 100 females in South Australia. The following is the order of the colonies in respect to these proportions:—

ORDER OF COLONIES IN REFERENCE TO PROPORTION OF MALE TO FEMALE BIRTHS, 1890 TO 1893.

	Boys to 100 Girls.		Boys to 100 Girls.
New South Wales	... 105·84	Western Australia	... 102·75
Tasmania	... 105·79	South Australia	... 102·01
Victoria	... 104·83		
Queensland	... 104·71	Mean ...	... 104·33
New Zealand	... 104·36		

Births of males and females in certain countries.

506. The proportions of male to female births in the countries included in the following list have been derived from official sources. The averages for the Australasian Colonies extend over the ten years

* For the relative proportions of male and female births in the colonies during each of the 19 years ended with 1891, see *Victorian Year-Book*, 1892, Vol. I., paragraph 572.

1881 to 1890, and those for the other countries named extend over periods of various lengths :—

PROPORTION OF MALE TO FEMALE BIRTHS IN VARIOUS COUNTRIES.

	Boys to 100 Girls.		Boys to 100 Girls.
Greece ...	112·0	Scotland ...	105·7
Roumania ...	111·0	Ireland ...	105·6
Connecticut ...	110·0	Tasmania ...	105·5
Italy ...	107·1	South Australia ...	105·3
Spain ...	107·0	Russia in Europe (1888)	105·3
Austria ...	106·8	Victoria ...	105·0
Western Australia ...	106·7	Sweden ...	105·0
France... ...	106·4	Denmark ...	105·0
Switzerland ...	106·3	Vermont ...	105·0
German Empire ...	106·2	Rhode Island ...	105·0
Holland ...	106·1	New South Wales ...	104·9
Norway ...	106·0	Queensland ...	104·7
Servia... ...	106·0	Japan (1882-91)	104·5
Massachusetts ...	106·0	New Zealand ...	104·4
Belgium ...	105·9	England and Wales ...	104·3
Russian Poland (1888)	105·9	Finland (1887)	104·1

507. It will be observed that the proportion of boys born to girls is in Western Australia below that in six, in South Australia and Tasmania below that in seventeen, and in Victoria below that in eighteen countries out of Australasia; whilst the proportion in New South Wales and Queensland is above that in only three, and in New Zealand above that in only two. Australasian and other countries compared.

508. In England and Wales the proportion of births of boys to those of girls is not only lower than that in any other European country, but it has for years past had a tendency to diminish. The proportion given in the table (104·3) is for the 53 years ended with 1890, but in the ten years ended with that year it was only 103·8. The Registrar-General of England states he is unable to offer any explanation of that “curious fact.”* Low proportion of boys born in England.

509. In 1893, 338 twin births and 4 triplet births were registered, as against 302 twin births and 5 triplet births in 1892. In the ten years ended with 1890, 2,734 cases of twins and 20 cases of triplets were recorded, the total number of births in the same period having been 312,565. There were thus 309,791 confinements in the ten years, and it follows that 1 mother in every 113 gave birth to twins, and 1 mother Twins and triplets.

* See 43rd Report of the Registrar-General of England, page xvi.

in every 15,490 was delivered of three children at a birth. During the previous decade, 1871 to 1880, 1 mother in every 111, on the average, gave birth to twins, and one in every 12,796 was delivered of three children at a birth.

Twin and triplets in Australasian Colonies.

510. It appears that only three of the Australasian Colonies besides Victoria distinguish the double and treble births in their returns. The following are the numbers of such births in each of the four colonies during each of the ten years ended with 1892 :—

TWINS AND TRIPLETS IN FOUR AUSTRALASIAN COLONIES,*
1883 TO 1892.

Year.	Victoria.		New South Wales.		Queensland.		New Zealand.	
	Twins.	Triplets.	Twins.	Triplets.	Twins.	Triplets.	Twins.	Triplets.
1883	183	...	287	2	103	...	...	...
1884	239	4	288	4	94	...	188	2
1885	237	1	306	2	115	...	161	1
1886	236	...	330	1	114	1	165	...
1887	285	3	310	1	105	...	185	3
1888	374	3	363	2†	130	1	192	1
1889	381	1	329	1	146	1	152	...
1890	353	3	398	1	154	1	190	2
1891	407	3	394	...	137	1	178	2
1892	302	5	328	6	142	1	172	1

Illegitimate births.

511. The illegitimate children born in 1893 numbered 1,997, or 1 to every 18 births registered, the proportion being the same as that of the preceding year. In the ten years 1881–90, out of 312,565 infants born, 14,916 were traced as having been born out of wedlock, which numbers furnish a proportion of 1 illegitimate child to every 21 births, as compared with an average during the ten years ended with 1880 of 1 to every 27 births.

Illegitimacy and concubinage, 1875 to 1893.

512. The following table gives a statement of the number of illegitimate births and their proportion to the total number registered; also the estimated number of women living in concubinage, and their proportion to the total number of single women at reproductive ages

* For the proportion of twins and triplets in various countries, see *Victorian Year-Book*, 1892, paragraph 579.

† Including one case of quadruplets.

living in Victoria, according to the returns of 1875 and each subsequent fifth year, also to those of 1891, 1892, and 1893:—

ILLEGITIMACY AND CONCUBINAGE, 1875 TO 1893.*

Year.	Illegitimate Births.		Women living in Concubinage (exclusive of public Prostitutes).	
	Total Number.	Percentage of Total Births.	Estimated Total Number.	Number per 100 Single Women between 15 and 45 Years of Age living in Victoria.
1875	779	2·92	2,573	3·36
1880	1,254	4·80	4,143	4·39
1885	1,308	4·36	4,320	3·54
1890	1,913	5·09	6,320	4·65
1891	2,064	5·36	6,950†	4·88†
1892	2,116	5·59	7,124	4·78
1893	1,997	5·46	6,724	4·73
Mean of 19 years	1,448	4·69	4,762	4·13

513. All the Australasian Colonies now publish statistics of illegitimacy. According to these, which possibly may not in every case represent the whole truth, illegitimacy, over a series of years, was most rife in Victoria and New South Wales, next in Western Australia, next in Queensland, next in Tasmania, and least of all in South Australia and New Zealand, and in 1892 the same order prevailed. In most of the colonies, so far as figures are available, illegitimacy appears to have a tendency to increase. The following table shows the percentage of illegitimate to the total births in the various colonies during 1875 and each subsequent fifth year, also in 1891 and 1892:—

Illegitimacy in Australasian Colonies.

ILLEGITIMACY IN AUSTRALASIAN COLONIES, 1875 TO 1892.‡

Year.	Illegitimate Births to every 100 Children Born.					
	Victoria.	New South Wales.	Queensland.	South Australia.	Tasmania.	New Zealand.
1875	2·92	4·20	3·43	...	...	1·36
1880	4·80	4·35	4·31	...	...	2·43
1885	4·36	4·60	4·08	2·42	4·55	3·20
1890	5·09	5·26	4·85	2·50	4·05	3·30
1891	5·36	5·36	4·65	2·93	3·72	3·49
1892	5·59	5·71	5·05	2·93	4·75	3·32
Mean of 18 years	4·60	4·61	4·15	2·57§	4·03§	2·79

NOTE.—In Western Australia the proportion was 4·36 in 1887, and 3·95 in 1888. Since then the proportions do not appear to have been published.

* For similar results for each of the nineteen years ended with 1891, see *Victorian Year-Book*, 1892, Vol. I., paragraph 583.

† Corrected since last issue.

‡ For similar results for each of the nineteen years ended with 1890, see *Victorian Year-Book*, 1892, Vol. I., paragraph 584.

§ Mean of eight years.

Illegitimacy
in United
Kingdom.

514. Over a series of years the proportion of illegitimacy existing in England and Wales appears not to differ greatly from that prevailing in Victoria, New South Wales, Queensland, and Tasmania. The proportion in Scotland, however, is much higher than that in any of the Australasian Colonies, whilst the proportion in Ireland is about equal to that in South Australia and New Zealand. This will be observed by comparing the following table with the last one :—

ILLEGITIMACY IN ENGLAND, SCOTLAND, AND IRELAND,
1871 TO 1892.

Period.	Illegitimate Births to every 100 Children Born.		
	England and Wales.	Scotland.	Ireland.
1871-80	5·0	8·7	2·4
1881-85	4·8	8·2	2·7
1886	4·7	8·2	2·7
1887	4·8	8·3	2·8
1888	4·6	8·1	2·9
1889	4·6	8·0	2·8
1890	4·4	7·6	2·7
1891	4·2	7·6	2·7
1892	4·2	7·4	2·5

Illegitimacy
in various
countries.

515. The following figures, taken from various sources, show certain countries arranged in order according to the extent of illegitimacy prevailing in each, the proportion of illegitimate births being also shown :—

ILLEGITIMACY IN VARIOUS COUNTRIES.

Country.	Illegitimate Births to every 100 Children Born.	Country.	Illegitimate Births to every 100 Children Born.
Austria	14·7	England	4·7
Bavaria	13·9	Switzerland	4·6
Saxony	12·7	New South Wales	4·6
Sweden	10·2	Victoria	4·6
Denmark	9·6	Western Australia	4·2
German Empire	9·3	Queensland	4·2
Belgium	8·7	Tasmania	4·0
Hungary	8·4	Russian Poland (1888)	3·7
Scotland	8·2	Holland	3·2
Norway	8·1	Ireland	2·8
France	8·1	New Zealand	2·8
Prussia	8·1	Russia in Europe (1888)	2·6
Italy	6·8	South Australia	2·6
Portugal	5·6	Greece	1·6
Spain	5·5		

516. According to the figures, more illegitimacy prevails in Austria, Bavaria, Saxony, and Sweden, and less in Greece, than in any other countries. In Victoria, illegitimacy appears to be less prevalent than in eighteen, and more so than in ten, of the countries. Position of Victoria in respect to illegitimacy.

517. It will be readily supposed that a larger proportion of illegitimacy prevails in Melbourne and suburbs than in any other district of Victoria, and that the proportion in the country districts is the smallest of all. In 1893, in the metropolitan district about 1 birth in 12, in the extra-metropolitan towns 1 birth in 21, but in country districts only one birth in 35 was registered as illegitimate. In the previous year the proportions were 1 in 12, 1 in 21, and 1 in 41 respectively.* Illegitimacy in town and country.

518. In order to ascertain the fruitfulness of the women of a country, it is usual to compare the legitimate births with the number of married women at the child-bearing age, which may be assumed to include all who have not passed their 45th year. Comparing the births with the total population, which is the ordinary means resorted to for the purpose of obtaining a knowledge of the reproductive strength of a community, is likely to mislead, as the population of different countries, or of the same country at different periods, varies considerably in regard to the sexes, ages, and conjugal condition of those forming its component parts. The number of legitimate, as distinguished from natural, births is published in all the Australasian Colonies except Western Australia. By comparing the former in 1891 with the number of married women at child-bearing ages returned at the census, as is done in the following table, the relative fecundity of the women of each of the colonies named is shown:— Fecundity of women in Australasian Colonies.

PROPORTION OF BIRTHS TO MARRIED WOMEN IN SIX AUSTRALASIAN COLONIES, 1891.
(Exclusive of Aborigines.)

Colony.	Married Women under 45 years of age.	Legitimate Births, 1891.	
		Total Number.	Number per 100 Married Women under 45.
1. Tasmania ...	15,150	4,786	31·59
2. Queensland ...	44,537	14,031	31·50
3. South Australia ...	33,486	10,425	31·13
4. Victoria ...	120,630	36,441	30·21
5. New South Wales ...	125,056	37,343	29·86
6. New Zealand ...	63,172	17,635	27·92

* Statistics of illegitimacy in 32 foreign cities are given in the *Victorian Year-Book*, 1892, Vol. I., paragraph 589. In every one of these a larger amount of illegitimacy is shown than that prevailing in Melbourne.

Concubinage
in Austral-
asian
Colonies.

519. Supposing the distinction between children born in and out of wedlock to be correctly stated in the marriage registers, it would be possible to ascertain approximately what number of single women were living in concubinage, the assumption being that the illegitimate births would bear the same proportion to such single women that the legitimate births do to the married women at the reproductive period of life. Statistics of illegitimacy are, however, always more or less unreliable. The very natural desire of a woman to conceal her shame and protect her offspring from the legal and social disabilities attending illegitimate birth may, and no doubt often does, impel her when registering her child's birth to keep back the fact of its having been born out of wedlock. It is certain that illegitimacy is always as rife as the returns indicate, but how much more common it may be there are no means of ascertaining. In the following table an attempt is made to state the probable number of single women living in concubinage in the six Australasian Colonies which published statistics of the illegitimacy prevailing during the census year. The figures, however, for the reasons given, must be taken only for what they may be worth:—

CONCUBINAGE IN SIX AUSTRALASIAN COLONIES, 1891.

(Exclusive of Aborigines.)

Colony.	Single Women between 15 and 45 Years of Age.*	Illegitimate Births, 1891.	Single Women living in Concubinage (exclusive of public Prostitutes).	
			Total Number.	Number per 100 Single Women between 15 and 45.
1. Queensland ...	34,627	684	2,171	6·27
2. New South Wales...	114,426	2,115	7,083	6·19
3. Victoria... ..	142,443	2,064	6,832	4·80
4. Tasmania ...	15,425	185	586	3·80
5. New Zealand ...	68,030	638	2,285	3·36
6. South Australia ...	35,310	312	1,002	2·84

Concubinage
in Austral-
asian
Colonies,
1881 and
1891.

520. Similar computations were made in 1881 for the same colonies except South Australia and Tasmania, which did not then separate the illegitimate births. The colonies referred to then stood in the same relative positions in regard to the single women (exclusive of public prostitutes, who, as is well known, rarely have children) living in concubinage as they did in 1891, but the proportions at the latter period were higher in Victoria and New South Wales (especially the last

* Including those never married, divorced, and widowed.

named), and very much lower in New Zealand, than they were at the former. The following are the figures at the two periods calculated according to a different, and perhaps more readily understood, method than those in the last column of the table:—

	1881.	1891.
In Queensland 1 single woman* was living immorally in every ...	15	16
„ New South Wales „ „ „ „ ...	20	16
„ Victoria „ „ „ „ ...	22	21
„ Tasmania „ „ „ „ ...	—	26
„ New Zealand „ „ „ „ ...	23	30
„ South Australia „ „ „ „ ...	—	35

521. One method of determining the fecundity of women is to find the average number of children born to a marriage, which may be ascertained approximately by dividing the legitimate births in any year by the number of marriages in the preceding year. The following is the result of such a calculation for Victoria during 1875 and each subsequent fifth year, also during 1891, 1892, and 1893:—

CHILDREN TO A MARRIAGE, 1875 TO 1893.

Year.	Legitimate Births.	Marriages in Year prior to that named in first column.	Average Number of Children to a Marriage.
1875 ...	25,941	4,925	5.27
1880 ...	24,894	4,986	4.99
1885 ...	28,667	7,218	3.97
1890 ...	35,665	9,194	3.88
1891 ...	36,441	9,187	3.97
1892 ...	35,715	8,780	4.07
1893 ...	34,555	7,723	4.47
Sums and Mean } during 19 years }	557,002	128,250	4.34

522. The figures show a steady diminution in the proportion of children born until the last three years, during which there has been a slight revival. Comparing the last year with the first, there has been a falling-off of something less than a child to a marriage, or of four children to five marriages. It is evident that if the births increased with the marriages as they should do, the proportions would remain steady; but this is shown not to be the case. There are, however, many matters affecting the birth rates of infants respecting which it is not possible to obtain precise information.

523. According to this mode of reckoning, it would appear that there are, upon the average, fewer children to a marriage in Victoria than in any of the other Australasian Colonies. The following are the

* Between 15 and 45 years of age.

proportions in each colony for 1880 and each subsequent fifth year, also for 1891 and 1892 :—

CHILDREN TO A MARRIAGE IN AUSTRALASIAN COLONIES,
1880 TO 1892.

Year.	Average Number of Children to a Marriage.					
	Victoria.	New South Wales.	Queensland.	South Australia.	Tasmania.	New Zealand.
1880 ...	4·99	5·00	4·89	4·61	...	5·54
1885 ...	3·97	4·68	4·39	4·60	4·62	5·18
1890 ...	3·88	4·90	4·69	4·90	4·78	4·87
1891 ...	3·97	5·01	4·61	4·60	5·21	4·81
1892 ...	4·07	4·46	4·87	4·42	4·79	4·54
Mean of 13 years }	4·19	4·70	4·62	4·70	4·75*	5·16

NOTE.—In Western Australia the proportion in 1887 was 5·03, and in 1888, 4·61; mean of the two years 4·82. The number of legitimate, as distinguished from the illegitimate, births does not appear to have been published for the other years.

Decrease in children to a marriage in each colony.

524. It seems that in all the colonies except Tasmania, Queensland, and Victoria there is a tendency for the average number of children to a marriage to decrease in numbers, the proportions in the last year not having been so high as in most of the earlier years shown in the table. In 1892, the proportions were below the average in all the colonies named in the table except Queensland and Tasmania.

Children to a marriage in various countries.

525. The following statement of the average number of children born to a marriage in certain countries has been derived from various sources. The figures are generally for a series of years. The country having the highest average is placed first in order, and the remainder in succession :—

CHILDREN TO A MARRIAGE IN VARIOUS COUNTRIES.

	Children to each Marriage.		Children to each Marriage.
Russia in Europe (1888)	5·70	Italy ...	... 4·56
Ireland ...	... 5·46	Scotland ...	... 4·43
New Zealand ...	... 5·21	Holland ...	... 4·34
Finland (1887)	... 5·03	Victoria ...	... 4·20
Russian Poland (1888)	... 4·89	Belgium ...	... 4·21
Western Australia	... 4·82	England ...	... 4·16
Tasmania ...	... 4·74	Sweden ...	... 4·01
New South Wales	... 4·72	Denmark ...	... 3·55
South Australia	... 4·72	Japan (1888-91)	... 3·50
Queensland ...	... 4·60	France ...	... 2·98

Position of Victoria in reference to births to a marriage.

526. Russia is at the head of the list, closely followed by Ireland† and New Zealand. Next in order to these are Finland, Russian Poland,

* Mean of eight years.

† The high proportion in Ireland may be due to the defective registration of marriages. See footnote to table following paragraph 422 *ante*.

and five Australasian Colonies, all of which, together with Italy, Scotland, and Holland, stand above Victoria, which, however, stands above England and five Foreign countries.

527. According to the registrations, births in Victoria* are always most numerous in the winter quarter, and next so in the autumn quarter. The proportion of births in the spring and summer quarters varies in different years, the advantage being generally in favour of the former. The following are the numbers and percentage for 1893, and the percentages for two previous decennial periods :—

BIRTHS IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1893.		Percentage in Ten Years.	
		Number of Births.	Percentage.	1881 to 1890.	1871 to 1880.
Summer ...	March ...	8,771	24·00	23·63	23·74
Autumn ...	June ...	9,553	26·14	25·49	25·10
Winter ...	September ...	9,592	26·24	26·73	27·15
Spring ...	December ...	8,636	23·62	24·15	24·01
	Year ...	36,552	100·00	100·00	100·00

528. The deaths registered in 1893 numbered 16,508, as against 15,851 in 1892. There was thus an increase in the year under notice of 657, or 4 per cent.

529. The deaths in 1893 were fewer than in any previous year since 1888, except 1892. The greatest mortality was in 1889, when the deaths exceeded 19,000 ; in 1887 and 1888 they did not much exceed 16,000 ; in 1886 they numbered less than 15,000, but in only one prior year, viz., 1875, did they reach that number.† The high mortality in the last-named year, in which 15,287 deaths were recorded, was due to the prevalence of measles and scarlatina in an epidemic form.

530. The births in 1893 exceeded the deaths by 20,044, or 121 per cent., the corresponding proportion being 139 per cent. in the previous year. In the ten years ended with 1890 the proportion averaged 107 per cent.; and in the ten years ended with 1880 it averaged 119 per cent.; whilst during the 29 years ended with 1893 the average was 118 per cent. The following were the births and deaths in 1865 and in

* A table showing the proportion of births occurring in each quarter in various countries was given in the *Victorian Year-Book*, 1892, Vol. I., paragraph 597.

† For the number of deaths during each year since the first settlement of Port Phillip, see *Statistical Summary of Victoria* (first folding sheet), to be published later on.

each subsequent fifth year, also in 1891, 1892, and 1893, and the excess of the former over the latter :—

EXCESS OF BIRTHS OVER DEATHS, 1865 TO 1893.

Year.	Births.	Deaths.	Excess of Births over Deaths.	
			Numerical.	Centesimal.
1865 ...	25,915	10,461	15,454	Per cent. 148
1870 ...	27,151	10,420	16,731	161
1875 ...	26,720	15,287	11,433	75
1880 ...	26,148	11,652	14,496	124
1885 ...	29,975	14,364	15,611	109
1890 ...	37,578	18,012	19,566	109
1891 ...	38,505	18,631	19,874	107
1892 ...	37,831	15,851	21,980	139
1893 ...	36,552	16,508	20,044	121
Total in 29 years	851,130	390,616	460,514	118

531. It may be remarked that the births more than doubled the deaths in all the years except 1875, 1876, 1882, and 1889.

532. Of the Australasian Colonies, New Zealand is the one in which the births almost invariably exceed the deaths by the highest proportion, although an exception to this rule took place in 1891, when the proportion was highest in Queensland, and in 1892, when the proportion was higher not only in that colony, but in South Australia and New South Wales. The position of Victoria in regard to the proportionate increase of births over deaths, although higher than that in most countries, is below that in any of the other colonies of the group. The following table shows the percentage of excess of births over deaths in each of the Australasian Colonies during the respective years 1884 to 1893, both inclusive. The colonies are arranged in order, that with the highest mean percentage being placed first, and that with the lowest last:—

EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN COLONIES, 1884-93.

Colony.	Excess per cent. of Births over Deaths.										Mean of 10 years.
	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	
New Zealand ...	246	224	215	212	231	220	205	180	177	169	208
South Australia	147	202	164	175	180	195	164	155	184	136	170
New South Wales	139	129	149	177	168	151	174	142	178	151	156
Queensland ...	56	87	126	162	158	135	173	185	183	153	142
Tasmania ...	130	128	134	119	135	127	127	122	140	152	131
Western Australia	55	100	82	122	126	161	189	106	99	123	116
Victoria ...	114	109	106	106	112	88	109	107	139	121	111

Years in which births doubled deaths.

Excess of births over deaths in Australasian Colonies.

533. In 1893 the percentage of excess of births over deaths in Melbourne was below that in Brisbane, Sydney, or Wellington, but above that in Perth, Adelaide, or Hobart, as will be seen by the following figures:—

EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN CAPITAL CITIES, 1893.

	Per cent.		Per cent.
1. Brisbane ...	127	5. Perth ...	95
2. Sydney ...	115	6. Adelaide ...	87
3. Wellington ...	115	7. Hobart ...	60
4. Melbourne ...	97		

534. The following table shows the percentage of excess of births over deaths in certain European countries* during each of the five years ended with 1891. The countries are arranged in order according to the means of the quinquennial period shown in the last column, the country with the highest mean being placed first, and the rest in succession:—

EXCESS OF BIRTHS OVER DEATHS IN EUROPEAN COUNTRIES, 1888 TO 1892.

Countries.	Excess per cent. of Births over Deaths.					Mean of 5 years.
	1888.	1889.	1890.	1891.	1892.	
Norway ...	82	71	69	77	67	73
Sweden ...	80	73	63	68	...	71†
England and Wales ...	72	71	55	55	60	63
Russian Poland ...	64	...	...	...	...	63‡
Scotland ...	73	68	54	51	61	61
Holland ...	66	65	60	63	52	61
Denmark ...	61	68	60	55	52	59
Prussia ...	64	60	52	65	55	59
United Kingdom ...	66	66	51	52	55	58
German Empire ...	54	54	46	58	48	52
Russia in Europe ...	55	...	...	...	...	50‡
Japan ...	58	51	40	28	...	44†
Belgium ...	45	48	40	41	40	43
Italy ...	36	50	36	42	39	41
Switzerland ...	39	36	27	36	45	37
Hungary ...	37	47	25	28	...	34†
Austria ...	30	39	25	37	26	31
Ireland ...	28	30	23	26	16	25
Spain ...	21	19	7	...	...	15§
France ...	5	11	-5	-1	-2	2

NOTE.—The minus sign (-) implies that the deaths were more numerous than the births.

* Japan is also included.
 † Mean of four years.
 ‡ Mean of three years, 1886 to 1888.
 § Mean of three years.

Excess of births over deaths in Australasia and elsewhere.

535. It will be observed that deaths bear a much larger proportion to births in all the countries named than they do in any of the Australasian Colonies, part of which difference is probably due to the Australian climate being more healthy and the circumstances of the colonies more favorable to longevity, and part to the fact that the countries named contain a larger proportion than the colonies of the young and the very old. In not one of those countries did the births double the deaths in any year of the period. On the other hand, in the Australasian Colonies, it is the exception for the births not to double the deaths, and in one of them (New Zealand), until the last three years, the births have been more than three times as numerous as the deaths. It will, moreover, be noticed that the deaths exceeded the births in France in 1890, 1891, and 1892.

Natural increase of population.

536. During the eleven years 1883-93, the population of Victoria increased at the average annual rate of 1·71 per cent. by excess of births over deaths, at which rate, irrespective of immigration, the population would double itself in 41 years. The rates varied from a minimum of 1·58 in 1889 to a maximum of 1·90 in 1892, as will be seen by the following figures:—

INCREASE OF POPULATION BY EXCESS OF BIRTHS OVER DEATHS,
1883 TO 1893.

	Per cent.		Per cent.		Per cent.
1883	... 1·62	1888	... 1·76	1892	... 1·90
1884	... 1·67	1889	... 1·58	1893	... 1·72
1885	... 1·65	1890	... 1·77		—
1886	... 1·64	1891	... 1·76	Mean	... 1·71
1887	... 1·70				—

Natural increase in Australasian Colonies.

537. Comparing the mean of the ten years ended with 1890 with similar means for the other Australasian Colonies during the same period the figures are as follow:—

MEAN ANNUAL RATE OF INCREASE BY EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN COLONIES, 1881-90.

	Per cent.		Per cent.
1. New Zealand	... 2·34	5. Tasmania	... 1·92
2. South Australia	... 2·26	6. Western Australia	... 1·91
3. New South Wales	... 2·23	7. Victoria	... 1·64
4. Queensland	... 2·06		

Natural increase in various countries.

538. Sir Rawson W. Rawson, in his opening address delivered by him as President of the Statistical Society of London in 1885, gave the following as the mean annual rates of increase by excess of births over deaths in various countries, the averages extending generally over

the nineteen years ended with 1883. The countries have here been arranged in order according to the rate of increase shown in each country:—

MEAN ANNUAL RATE OF INCREASE BY EXCESS OF BIRTHS OVER DEATHS IN VARIOUS COUNTRIES.

	Per cent.		Per cent.
Servia	1·69	Ireland	·86
Poland (Russian)	1·51	Finland	·85
England and Wales	1·37	Alsace-Lorraine	·80
Russia in Europe	1·37	Italy	·77
Norway	1·36	Greece	·76
Saxony	1·34	Connecticut	·76
Scotland	1·33	Austria	·74
German Empire	1·24	Switzerland	·71
Prussia	1·23	Rhode Island	·69
Thuringia	1·19	Vermont	·67
Denmark	1·16	Croatia and Slavonia	·66
Sweden	1·13	Massachusetts	·65
Holland	1·13	Spain	·48
Württemberg	1·11	Hungary	·48
Baden	1·05	Roumania	·32
Belgium	·91	France	·16
Bavaria	·89		

539. According to the figures, the rate of natural increase (excess of births over deaths) in Victoria is about equal to that in Servia, and much higher in every one of the Australasian Colonies than in any of the other countries named. It will be noticed that England stands near the head of the list, Scotland lower, and Ireland very much lower; also that in France the rate of natural increase is much below that in any other country. Results in various countries compared.

540. In Victoria, deaths of males in 1893 numbered 9,551, and deaths of females 6,957. These numbers furnish a proportion of nearly 73 females to every 100 males; as against a proportion to every 100 males of 74 females in the ten years 1882–91, and of 75 females in the ten years 1872–81. Females in the total population were in the proportion to every 100 males of 93 during 1893, 90 during the last, and 88 during the preceding decennial period; therefore at each period more males and fewer females died than their relative numbers in the population might have given reason to expect. Deaths of males and females.

541. The following table shows the estimated mean population of either sex, the number of deaths of either sex, and the death rate of Annual death rate.

males and females, and of both sexes, during 1860 and each subsequent fifth year, also in 1891, 1892, and 1893 :—

ANNUAL DEATH RATE, 1860 TO 1893.

Year.	Estimated Mean Population.		Number of Deaths.		Deaths per 1,000 of the Mean Population.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1860 ...	331,979	202,475	7,134	4,927	21·49	24·33	21·49
1865 ...	347,083	264,135	6,158	4,303	17·74	16·29	17·11
1870 ...	392,159	321,036	6,114	4,306	15·59	13·41	14·61
1875 ...	419,779	367,558	8,563	6,724	20·40	18·29	19·42
1880 ...	446,445	403,898	6,610	5,042	14·81	12·48	13·70
1885 ...	504,000	452,880	8,300	6,064	16·47	13·39	15·01
1890 ...	589,310	529,190	10,369	7,643	17·60	14·44	16·10
1891 ...	600,860	546,070	10,666	7,965	17·75	14·59	16·24
1892 ...	606,990	555,720	9,098	6,753	14·99	12·15	13·63
1893 ...	607,570	562,760	9,551	6,957	15·72	12·36	14·11
Average of 34 years ...					16·79	14·41	15·69

NOTE.—In 1860 and 1875, especially in the former year, the death rate was swelled by epidemics of measles and scarlatina.

Male and female death rate compared.

542. It will be noticed that in all the years shown, except 1860, death bore more hardly upon males than upon females. The figures in the lowest line of the table show that, over a period of 34 years, the deaths of males per 1,000 of the same sex living exceeded by about $2\frac{2}{5}$ the deaths of females per 1,000 of that sex living.

Normal death rate.

543. In countries in which the climate is healthy, hygiene properly attended to, and the population in a normal condition as regards age, the ordinary mortality incident to human nature would probably cause the death rate to be in the proportion of about 17 per 1,000 persons living. It should, however, be borne in mind that these conditions rarely prevail in newly settled countries, and consequently the death rates based merely upon the total population, in common with birth and marriage rates, calculated upon a like basis, are not fair tests of the state of a community. If the proportion of very young or old people is high, the death rate will also be high ; but if, on the other hand, the number of the persons at the middle ages is excessive, the death rate will be low. It will be remarked that the mortality exceeded 17 per 1,000 nine times in the last 34 years, but over the whole period it has averaged less than 16 per 1,000. In the last seventeen years it has only thrice been so high as 16 per 1,000, whilst in seven of those years it was below 15 per 1,000, in two being even below 14 per 1,000.

544. The proportion which the deaths that occurred in each Australasian colony bore to the total population of that colony during 1865 and each subsequent fifth year, also in 1891, 1892, and 1893, will be found in the following table:—

Death rate in Australasian Colonies.

DEATH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1893.

Year.	Number of Deaths per 1,000 of Mean Population.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	16·97	16·49	21·42	14·30	...	13·40	15·13
1870 ...	14·61	13·38	14·59	13·94	...	13·88	11·13
1875 ...	19·42	18·42	23·80	19·45	17·88	20·00	15·92
1880 ...	13·70	15·47	13·59	14·85	13·24	16·12	11·46
1885 ...	15·21	16·48	20·19	12·73	17·61	15·89	10·74
1890 ...	16·10	12·90	14·61	12·40	12·00	14·74	9·66
1891 ...	16·24	14·24	12·77	13·26	16·96	15·00	10·35
1892 ...	13·63	12·20	12·66	11·38	16·63	13·53	10·06
1893 ...	14·11	13·25	13·34	13·44	15·12	13·47	10·23
Mean of 29 years }	15·57	15·17	17·16	14·32	16·06*	15·23	11·48

545. In the 29 years over which the observations extend, the normal death rate of 17 per 1,000 persons living was reached in Queensland fourteen times, in Victoria five times, in New South Wales and South Australia four times, in Tasmania three times, and in New Zealand not at all. In the last 22 of those years it was reached six times in Western Australia. Queensland is the only one of the colonies in which, over a series of years, the death rate has exceeded 17 per 1,000.

Normal death rate in colonies.

546. According to the average of a series of years, the death rate of Queensland was much higher, and that of New Zealand much lower, than that of any of the other colonies; next to Queensland in point of mortality stands Western Australia, and then follow—with death rates differing but slightly from one another—Victoria, Tasmania, and New South Wales; whilst the average death rate in South Australia is lower than that in any except New Zealand. In 1892 and 1893 the death rates were low in all the colonies, but the death rate of Victoria was

Order of colonies in respect to death rates.

* Mean of nineteen years.

above that of any of the other colonies except Western Australia. The following is the order of the colonies in reference to their respective death rates in the year under review, and over a series of years, the colony with the highest rate being placed first, and that with the lowest last:—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO DEATH RATES.

Order in 1893.	Order over a Series of Years.
1. Western Australia.	1. Queensland.
2. Victoria.	2. Western Australia.
3. Tasmania.	3. Victoria.
4. South Australia.	4. Tasmania.
5. Queensland.	5. New South Wales.
6. New South Wales.	6. South Australia.
7. New Zealand.	7. New Zealand.

Death rate
in Australia
and Aus-
tralasia.

547. The death rate of the colonies situated upon the continent of Australia taken in combination, and the death rate of those colonies with the addition of Tasmania and New Zealand, are shown in the following table for the 21 years ended with 1893:—

DEATH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1893.

Year.	Number of Deaths per 1,000 of Mean Population.		Year.	Number of Deaths per 1,000 of Mean Population.	
	Continent of Australia.	Australia with Tasmania and New Zealand.		Continent of Australia.	Australia with Tasmania and New Zealand.
1873 ...	14·43	14·20	1885 ...	15·98	15·02
1874 ...	15·73	15·36	1886 ...	15·27	14·44
1875 ...	19·08	18·63	1887 ...	14·43	13·78
1876 ...	17·12	16·37	1888 ...	14·49	13·64
1877 ...	15·23	14·77	1889 ...	15·39	14·37
1878 ...	15·72	14·94	1890 ...	14·25	13·51
1879 ...	14·06	13·84	1891 ...	14·75	14·04
1880 ...	14·47	14·01	1892 ...	12·77	12·36
1881 ...	14·62	14·01	1893 ...	13·62	13·06
1882 ...	15·82	15·01			
1883 ...	15·05	14·50	Means ...	15·17	14·05
1884 ...	16·35	15·30			

Normal
death rate
in Australia
and Aus-
tralasia.

• 548. It will be noticed that in 1875 and 1876 the mortality on the Australian continent exceeded 17 per 1,000, but in no other years; also that it exceeded that rate upon the continent combined with the colonies of Tasmania and New Zealand only in 1875. It will further be noticed that in 1892 and 1893 the rate for the continent, as well as that for the whole of Australasia, was lower than in any previous year.

549. The following table shows the death rates in as many British colonies outside Australasia as the particulars are available for. In many cases the average extends only over a short period, and in few, if any, of the colonies are the conditions affecting the duration of human life similar to those prevailing in the Australasian group :—

DEATH RATES IN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Deaths per 1,000 of the Population.
Gibraltar ...	1888-9	21·8
Malta ...	1886	27·0
British India ...	1880-88	24·9
Ceylon ...	1886-8	24·8
Straits Settlements ...	1888-9	30·4
Hong Kong ...	1879-86	26·6
Mauritius ...	1886-8	31·4
Seychelles ...	1886	20·1
St. Helena ...	1871-5	13·2
Gambia ...	1882	51·5
Sierra Leone ...	1887-9	18·3
Nova Scotia ...	1871-5	12·1
Bermudas ...	1875-89	24·0
British Guiana ...	1871-83	33·7
West Indies—		
Bahamas ...	1888-9	22·8
Jamaica ...	1888-92	24·1
St. Lucia ...	1869-84	25·3
St. Vincent ...	1886-9	21·2*
Barbados ...	1886	25·7
Grenada ...	1888-9	23·9*
Tobago ...	1886	21·0
Antigua ...	1883-4	39·5
Montserrat ...	1883-6	20·4
Dominica ...	1882-3	17·3
Trinidad ...	1881-90	27·8*

550. In all the European countries of which the information is at hand, except Sweden, the mean annual death rates are higher than in Queensland, and much higher than in any of the other Australasian Colonies. Moreover, in all, with the exception of Sweden, the mean rate is above 17 per 1,000, and, with the exception of that country and Norway, in not one of those countries did the rate during any of the years named ever fall as low as 17 per 1,000; whilst in Hungary, on

* Inclusive, it is believed, of still-births, which are recorded as deaths.

the other hand, the average rate amounts to nearly twice that proportion. In the following table the countries are arranged in the order of their mean death rates, as shown in the last column:—

DEATH RATES IN EUROPEAN* COUNTRIES, 1888 TO 1892.

Countries.	Number of Deaths per 1,000 of Mean Population.					
	1888.	1889.	1890.	1891.	1892.	Mean of Five Years.
Hungary	32·0	29·8	32·3	33·1	...	31·8†
Austria	29·2	27·3	29·4	27·9	28·8	28·5
Italy... ..	27·6	25·6	26·4	26·2	26·2	26·4
German Empire ...	23·7	23·7	24·4	23·4	24·1	23·9
Prussia	22·8	23·2	24·1	22·9	23·4	23·3
France	21·8	20·5	22·6	22·6	22·6	22·0
Holland	20·4	20·1	20·5	20·7	21·0	20·5
Belgium	20·1	19·1	20·6	21·0	21·8	20·5
Switzerland	19·9	20·3	20·9	20·8	19·3	20·2
Japan	19·0	20·2	20·4	21·0	...	20·1†
Denmark	19·7	18·6	19·0	20·0	19·4	19·3
Scotland	18·0	18·4	19·7	20·7	18·5	19·1
England and Wales ...	18·1	18·2	19·5	20·2	19·0	19·0
United Kingdom ...	18·1	18·1	19·4	20·0	19·0	18·9
Ireland	17·9	17·4	18·2	18·4	19·4	18·3
Norway	16·9	17·4	17·9	17·5	17·7	17·5
Sweden	16·0	16·0	17·1	16·8	...	16·5†

NOTE.—In Russia in Europe in 1886 the death rate was 31·3, in Poland 23·3, and in Finland 21·8.

551. In every country the death rate is higher in towns than it is in extra-urban districts. This circumstance, although no doubt partly attributable to the superior healthfulness and immunity from contagion prevailing in the latter, is also to a great extent due to the fact that hospitals and charitable institutions, which are frequented by patients from the country as well as by town residents, are generally situated in the towns; and further, that outside of charitable institutions many persons die who have come from the country on the approach of serious illness for the sake of the superior nursing and medical attendance to be obtained in town. In 1893, the death rate was much lower in Melbourne and suburbs than in the country towns, whilst in the former it was nearly twice as high and in the latter nearly two and a half times as high as in the country districts. The rate in Melbourne was considerably below, that for country towns was slightly

* Japan is also included.

† Mean of four years.

above, and that for rural districts was slightly below, the average of the ten years ended with 1890. The following are the figures:—

DEATHS IN URBAN AND COUNTRY DISTRICTS, 1893.

Districts.	Estimated Mean Population.	Deaths, 1893.		
		Total Number.	Number per 1,000 of the Population.	
			1893.	Annual Mean, 1881-90.
Melbourne and suburbs (Greater Melbourne)	457,230	7,805	17·07	20·65
Extra-metropolitan Towns	193,810	4,175	21·54	19·90
Country districts ...	519,290	4,528	8·72	8·90
Total ...	1,170,330	16,508	14·11	15·20

552. The number of deaths per 1,000 of the estimated population of the metropolis and suburbs (Greater Melbourne), the extra-metropolitan towns, and the country districts of Victoria is given in the following table for 1875 and each subsequent fifth year, also for 1891, 1892, and 1893:—

Death rates in town and country, 1875 to 1893.

DEATH RATES IN URBAN AND COUNTRY DISTRICTS, 1875 TO 1893.*

Years.	Number of Deaths per 1,000 of the Estimated Population.			
	Greater Melbourne.†	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1875 ...	25·82	26·03	11·24	19·42
1880 ...	18·70	17·65	8·13	13·70
1885 ...	20·15	18·88	9·03	15·01
1890 ...	19·63	21·58	10·09	16·10
1891 ...	19·05	22·79	10·45	16·24
1892 ...	15·99	19·05	9·14	13·63
1893 ...	17·07	21·54	8·72	14·11

553. In thirteen of the last 21 years,* including eight of the last twelve, the death rate in Melbourne and suburbs was higher than that

Normal death rate in town and country.

* For the death rates in urban and country districts during each of the nineteen years ended with 1891, see *Victorian Year-Book*, 1892, Vol. I., paragraph 626.

† The death rate in Greater Melbourne would be considerably reduced if the deaths which occurred in the metropolitan hospitals, asylums, &c., the patients in which come from all parts of the colony, should be eliminated from the total. In 1891, it would be reduced to 15·75, in 1892 to 13·13, and in 1893 to 14·21 per 1,000 persons living.

in the other town districts; but in 1890, 1891, 1892, 1893, and the other four years the death rate in the extra-metropolitan towns was the higher. A greater mortality in proportion to population prevailed in the urban than in the country districts in all the years. In the former the mortality was invariably above, and generally much above, the normal 17 per 1,000 persons living, whilst in country districts it was always very considerably below that rate. In 1893 the death rate in the town districts was higher, whilst that in the country districts was lower than in the previous year.

Death rates
in town and
country
districts of
England.

554. In England and Wales, during the ten years 1881-90, the death rate in urban districts was 20·3 per 1,000, and in country districts 17·3 per 1,000; the difference between these rates being not nearly so great as in similar divisions of Victoria.*

Death rates
in Mel-
bourne and
suburbs.

555. The following table shows the mean population, the number of deaths, and the proportion of the latter to the former, in 1893, also the number of deaths to every 1,000 persons living during the period of ten years ended with 1890, in each of the different municipalities and other sub-districts forming the component parts of the district of Melbourne and suburbs (Greater Melbourne). In order to render the rates of the various districts comparable, as far as possible, the deaths in hospitals and similar institutions have been eliminated from the districts in which they occurred, and are shown separately near the foot of the table:—

DEATHS IN GREATER MELBOURNE.

Sub-Districts.	Estimated Mean Population, 1893.	Deaths.		
		Total Number.	Number per 1,000 of the Population.†	
			1893.	Annual Mean, 1881 to 1890.
Melbourne City	65,953	926	14·04	16·64
North Melbourne Town	20,763	314	15·12	18·76
Fitzroy City	29,190	430	14·73	17·55
Collingwood City	31,705	483	15·23	19·84
Richmond City	32,348	556	17·19	19·03
Brunswick Town	20,500	332	16·20	18·39
Northcote Town	6,799	109	16·03	15·86‡

* See 53rd Report of the Registrar-General of England, page li.

† In order to compare the death rate with density of population, see table following paragraph 67 *ante*.

‡ Average of 7 years.

DEATHS IN GREATER MELBOURNE—*continued.*

Sub-Districts.	Estimated Mean Population, 1893.	Total Number.	Deaths.	
			Number per 1,000 of the Population.*	
			1893.	Annual Mean, 1881 to 1890.
Prahran City	37,090	494	13·32	16·53
South Melbourne City	37,019	546	14·75	17·45
Port Melbourne Town	12,105	178	14·70	19·53
St. Kilda City	19,235	245	12·74	14·15
Brighton Town	9,656	137	14·19	14·76
Essendon Town	13,940	194	13·92	12·28†
Flemington and Kensington Borough	10,130	151	14·91	15·02†
Hawthorn City	18,675	223	11·94	14·06
Kew Borough	7,132	87	12·20	12·01
Footscray City	17,330	309	17·83	18·39
Williamstown Town	15,205	228	15·00	16·55
Oakleigh Borough	1,120	19	16·96	15·33
Caulfield Shire	8,380	59	7·04	
Malvern Shire	8,875	78	8·79	
Boroondara Shire	6,430	51	7·93	
Preston Shire	3,210	39	12·15	
Coburg Shire	5,560	58	10·43	
Remainder of district	12,788	181	14·15	
Shipping in Hobson's Bay and river	1,965	12	6·11	7·22
Total	453,103	6,439	14·08	16·96
<i>Hospitals, Asylums, &c.‡</i>	<i>4,127</i>	<i>1,366</i>	<i>2·99§</i>	<i>3·69§</i>
Grand Total	457,230	7,805	17·07	20·65

556. It will be observed that in 1893 the death rates were below the average of the decennial period in all the sub-districts, except Northcote, Essendon, and Kew. In the majority of these a low rate of mortality prevailed, more especially in the shires of Caulfield, Boroondara, Malvern, and Coburg, and the city of Hawthorn.

Death rates in 1893 and series of years.

557. The only sub-districts which, according to the average of ten years, had a higher death rate than 19 per 1,000|| are the low-lying

Places in which death rate was highest.

* See footnote (†) on preceding page.

† Average of 8 years.

‡ Includes the Melbourne, Alfred, Women's, and Children's Hospitals, and the Immigrants' Home (partly also in South Melbourne), all situated in Melbourne City; the Benevolent Asylum, which is on the boundary between North Melbourne and Melbourne City; the Homœopathic Hospital, which is in South Melbourne; the Home of the Little Sisters of the Poor, which is in Northcote; the Metropolitan Lunatic Asylum, which is in Kew; and the Yarra Bend Lunatic Asylum and the Austin Hospital for Incurables, which are in "Remainder of district."

§ Per 1,000 of the population of the whole of Melbourne and suburbs.

|| It should be remembered that the deaths in hospitals, asylums, &c., have been eliminated from the various sub-districts. If this had not been done, the death rates of several sub-districts would have been much higher than those shown in the table.

localities of Collingwood, Port Melbourne, and Richmond ; the next highest death rate prevailed in the densely populated suburb of North Melbourne, and next in Brunswick and Footscray. In 1893 the highest death rate was in Footscray, which, with Richmond City, were the only districts with a rate exceeding 17 per 1,000 ; then followed Oakleigh with nearly 17, and Brunswick and Northcote with over 16 per 1,000. Of the other sub-districts only Collingwood, North Melbourne, and Williamstown had as high a mortality as 15 per 1,000.

558. The death rate of Greater Melbourne, taken as a whole, in the calculation of which the deaths in charitable institutions are included, was 17 per 1,000 persons living in 1893, or about $3\frac{3}{5}$ per 1,000 lower than the average during the period of ten years. It will be borne in mind that the deaths in hospitals, asylums, &c., are excluded from the returns of the individual districts ; if such deaths should also be excluded from the total, the deaths in Greater Melbourne would only number 6,439, or a proportion of 14·08 per 1,000 living, a similar proportion for the ten years ended with 1890 being 16·96.

559. In 1893, according to the following figures, the death rate of Melbourne was very much lower than that of Perth or Hobart, and slightly lower than that in Adelaide, but higher than that of any of the other Australasian capital cities. In 1881, or twelve years previously, the death rate in Adelaide was higher than in Melbourne or any other capital ; whilst that of Sydney was only slightly lower than in Melbourne ; but the returns indicate a marked decline in the mortality of those cities since 1881. There is reason to believe, however, that in some of the colonies the metropolitan radius, so far as the deaths are concerned, is smaller than that for which the population is returned. In such cases the death rate would obviously appear to be lower than it really is. It should, moreover, be mentioned that the death rate of Melbourne is swelled by the large number of country residents who are admitted to, and die in, the metropolitan hospitals. In the Wellington returns, and possibly in those of some other of the capital cities, it is the custom to eliminate such entries, and it is probable that in Melbourne such deaths bear a higher proportion to the total number

Death rate
in Greater
Melbourne,
excluding
hospitals,
&c.

Deaths in
Austral-
asian
capitals,
1893.

of deaths recorded than they do in any of the other capital cities named :—

DEATHS IN AUSTRALASIAN CAPITAL CITIES, 1893.

Capital Cities.*	Estimated Mean Population, 1893.	Deaths, 1893.	
		Total Number.	Number per 1,000 of the Population.
Perth ...	11,770	278	23·62
Hobart ...	35,000	748	21·37
Adelaide ...	138,658	2,438	17·58
Melbourne ...	457,230	7,805	17·07
Sydney ...	416,370	6,483	15·57
Brisbane ...	104,560†	1,523	14·57
Wellington ...	37,656	495	13·15

560. According to the following figures, showing the death rates in the principal towns in the United Kingdom, and the figures just given (for 1893) showing the death rates in Australasian capital cities, the death rate is apparently lower in Wellington, Brisbane, and Sydney than in any of the British towns named; in Melbourne than in any except one, and in Adelaide than in any except two of such towns. On the other hand, the death rate of Perth was higher than that in any of the towns named except seven, and the death rate in Hobart than in any of the towns named except fourteen :—

Death rates in towns of United Kingdom.

DEATH RATES IN BRITISH TOWNS.

	Deaths per 1,000 of the Population.		Deaths per 1,000 of the Population.
Dublin ...	30·6	Halifax ...	21·0
Manchester ...	28·7	Birkenhead ...	21·0
Preston ...	27·9	Twenty-eight large towns	20·8
Blackburn ...	25·5	Bristol ...	20·4
Newcastle ...	25·3	Norwich ...	20·4
Oldham ...	23·8	Bradford ...	19·9
Liverpool ...	23·7	Edinburgh ...	19·8
Glasgow ...	23·2	Sunderland ...	19·7
Huddersfield ...	23·0	Birmingham ...	19·7
Plymouth ...	22·7	London ...	19·6
Salford ...	22·2	Portsmouth ...	19·5
Cardiff ...	21·9	Leicester ...	19·5
Wolverhampton ...	21·7	Hull ...	19·2
Sheffield ...	21·6	Nottingham ...	18·7
Bolton ...	21·3	Derby ...	17·1
Leeds ...	21·1	Brighton ...	16·9

561. It will be noticed that the death rate is higher in Dublin than in any other large town in the United Kingdom. In this respect it contrasts very unfavorably with London, which is one of the towns in which the death rate is lowest. Manchester is one in which the

Towns having highest and lowest death rates.

* With suburbs.

† Estimated.

death rate had always been, and continued to be, highest; but Liverpool, which some years previously stood at the head of the list, has now six towns above it, and stands immediately above Glasgow. In Birmingham the mortality is comparatively low, and approximates closely to that of London.

562. The death rate in all the Australasian capitals will be found to be considerably lower than the average death rates of most of the 50 Colonial and Foreign towns named in the subjoined list:—

DEATH RATE IN 50 COLONIAL AND FOREIGN TOWNS, 1878-80.*

	Annual Deaths per 1,000 of the Population.		Annual Deaths per 1,000 of the Population.
Vera Cruz ...	70·5	New York ...	26·2
Valparaiso ...	64·6	Leipsic ...	26·1
St. Petersburg ...	51·4	Zurich ...	25·6
Havanna ...	45·7	Turin ...	25·6
Madras (1887) ...	40·3	Dresden ...	25·4
Rio Janeiro ...	39·4	Stockholm ...	24·7
Madrid ...	37·4	Lyons ...	24·7
Buda-Pesth ...	35·2	Hamburg ...	24·5
Alexandria ...	34·2	Bucharest ...	24·5
Naples ...	33·1	Brussels ...	23·9
Munich ...	32·8	Paris (1887) ...	23·4
Breslau ...	32·5	Rotterdam ...	23·3
Rouen ...	31·3	Berlin (1889) ...	23·1
Calcutta ...	31·1†	Boston (1890-91) ...	22·9
Mexico ...	30·9	Quebec ...	22·9
Milan ...	30·6	Venice ...	22·7
Buenos Aires ...	30·1	New Orleans ...	22·7
Montreal (1889) ...	29·6	Copenhagen ...	22·1
Vienna ...	29·0	Amsterdam (1887) ...	22·1
Palermo ...	28·5	Geneva ...	21·2
Marseilles ...	28·0	Baltimore ...	21·1
Chicago ...	27·2	Philadelphia ...	20·3
Rome ...	26·8	St. Louis ...	19·3
Bordeaux ...	26·7	Christiana ...	18·8
Bombay (1887) ...	26·3	San Francisco ...	18·1

563. Of the six principal towns in Victoria next in importance to Melbourne, all, except Warrnambool, had a higher death rate than that city; but in not one of them was the death rate as high as in the majority of Colonial and Foreign towns just referred to. This will be seen by the following figures:—

DEATH RATES IN SEVEN VICTORIAN TOWNS, 1893.

	Deaths per 1,000 of the Population.		Deaths per 1,000 of the Population.
1. Stawell ...	23·68	5. Geelong ...	18·80
2. Bendigo (Sandhurst) ...	22·13	6. Melbourne ...	17·07
3. Castlemaine ...	22·11	7. Warrnambool ...	15·91
4. Ballarat ...	20·73		

* Except where other years are specially given. Many of the figures are taken from Mulhall's *Dictionary of Statistics* (1891), page 174.

† In 1889, the proportion was 34·36 per 1,000 living.

Death rates
in Foreign
towns.

Death rates
in Victorian
towns.

564. The mortality of Victoria is usually highest in the first five months and in the last month of the year. The relative mortality of the various months fluctuates, however, in different years. According to the average of the decennium ended with 1890, the months in which most deaths occur appear to be January, March, and December, and then April, February, May, in the order named; whereas in the preceding decennium fewer deaths occurred in December than in any of the other months just named. In the year under review the largest number of deaths occurred in July and August, in consequence of an epidemic of measles which commenced in May and ended in September, but rose to its greatest height in the first-named two months. The number of deaths in each month of 1893, and their proportion to the total number in the year, also the proportion of the deaths in each month of the decennial periods ended with 1880 and 1890 to the total number of deaths during the same periods, will be found in the following table:—

DEATHS IN EACH MONTH.

Months.	Year 1893.		Percentage in—	
	Number of Deaths.	Percentage.	Ten Years : 1881 to 1890.	Ten Years : 1871 to 1880.
January	1,467	8·89	10·05	10·29
February	1,388	8·40	8·69	9·09
March	1,474	8·93	9·46	10·17
April	1,396	8·46	8·77	9·73
May	1,230	7·45	8·52	8·55
June	1,210	7·33	7·51	7·44
July	1,564	9·47	7·78	7·89
August	1,478	8·95	7·93	7·37
September	1,358	8·23	7·17	6·81
October	1,299	7·87	7·04	7·09
November	1,238	7·50	7·62	7·12
December	1,406	8·52	9·46	8·45
Total	16,508	100·00	100·00	100·00

565. In Victoria the summer is the most trying portion of the year, especially to invalids and young children. It is not astonishing therefore that most deaths usually occur during that period. Next to the summer, the autumn quarter is usually the most fatal, then the spring, and lastly the winter; but in 1893, owing to the outbreak of measles just alluded to, most deaths occurred in the winter quarter whilst fewest took place in the autumn quarter. In the United Kingdom the greatest mortality occurs in the winter, and the least in the summer quarter. A statement of the relative mortality of the different seasons in Victoria,

according to the experience of the past year and the two last decennial periods ; in England and Wales, according to the experience of 31 years ; in Scotland, according to the experience of ten years ; and in Ireland, according to the experience of five years ; together with the mean temperature in each quarter in Melbourne and Greenwich, will be found in the following table :—

RELATIVE MORTALITY OF EACH QUARTER IN VICTORIA, ENGLAND, SCOTLAND, AND IRELAND.

Seasons.*	Mean Temperature in Shade.		Deaths per 100 at all Seasons.					
			Victoria.			England and Wales.	Scotland.	Ireland.
	Melbourne, Victoria.	Greenwich, England.	Year 1893.	Average of Ten Years, 1881 to 1890.	Average of Ten Years, 1871 to 1880.	Average of Thirty-one Years.	Average of Ten Years.	Average of Five Years.
Summer	65°·2	60°·5	26·22	28·20	29·55	23·24	22·34	20·21
Autumn	53·8	44·3	23·24	24·80	25·72	24·65	24·71	23·45
Winter	50·2	40·0	26·65	22·90	22·07	27·49	27·95	30·19
Spring	60·3	52·8	23·89	24·10	22·66	24·62	25·00	26·15
Year	57·6	49·4	100·00	100·00	100·00	100·00	100·00	100·00

Deaths of Chinese and Aborigines.

566. The Chinese who died in 1893 numbered 229—of whom 1 was a female ; and the Aborigines who died numbered 19—of whom 6 were females. Supposing the Chinese in Victoria to have numbered 9,000, and the Aborigines 700 ; deaths of the former formed a proportion of 25 and the latter of 27 per 1,000 of their respective numbers. In the same year the proportion of deaths of all races to every 1,000 of the population was 14·11.

Ages at death of Chinese and Aborigines.

567. In 1893 only 3 of the Chinese who died were under the age of 5 years, and only 18 others were under 45 years of age ; the great majority, or more than half, were between 45 and 65 ; whilst the oldest were said to be aged 80, 81, and 84 respectively. Of the Aborigines who died, three were under 5.

Deaths at each age, 1893 and 1881-90.

568. The following table shows the number of deaths at various periods of age registered in Victoria during the year 1893, and during

* The summer, autumn, winter, and spring seasons in Victoria approximate to the quarters ending on the last day of March, June, September, and December respectively ; and in the United Kingdom to those ending on the last day of September, December, March, and June respectively.

the decennial period 1881-90 ; also the proportion of the deaths at each age to the total at all ages :—

DEATHS AT EACH AGE, 1893 AND 1881-90.

Ages.	Number of Deaths at each Age.			Percentage of Deaths at each Age.		
	Males.	Females.	Total.	Males.	Females.	Total.
YEAR 1893.						
Under 5 years ...	3,360	2,809	6,169	35·18	40·38	37·37
5 years to 10 years ...	246	196	442	2·58	2·82	2·68
10 „ 15 „ ...	143	139	282	1·50	2·00	1·71
15 „ 20 „ ...	199	215	414	2·08	3·09	2·51
20 „ 25 „ ...	274	282	556	2·87	4·05	3·37
25 „ 35 „ ...	695	628	1,323	7·28	9·03	8·01
35 „ 45 „ ...	559	445	1,004	5·85	6·39	6·08
45 „ 55 „ ...	705	454	1,159	7·38	6·53	7·02
55 „ 65 „ ...	1,276	635	1,911	13·36	9·13	11·58
65 „ 75 „ ...	1,238	648	1,856	12·96	9·31	11·42
75 years and upwards ...	856	506	1,362	8·96	7·27	8·25
Total ...	9,551	6,957	16,508	100·00	100·00	100·00
TEN YEARS, 1881-90.						
Under 5 years ...	29,885	25,679	55,564	34·38	39·79	36·69
5 years to 10 years ...	2,445	2,312	4,757	2·81	3·58	3·14
10 „ 15 „ ...	1,499	1,432	2,931	1·73	2·22	1·94
15 „ 20 „ ...	2,153	2,273	4,426	2·48	3·52	2·92
20 „ 25 „ ...	3,309	3,075	6,384	3·81	4·76	4·22
25 „ 35 „ ...	6,217	5,693	11,910	7·15	8·82	7·86
35 „ 45 „ ...	5,914	4,960	10,874	6·81	7·68	7·18
45 „ 55 „ ...	9,608	5,472	15,080	11·05	8·48	9·96
55 „ 65 „ ...	11,711	5,307	17,018	13·47	8·22	11·23
65 „ 75 „ ...	8,616	4,596	13,212	9·91	7·12	8·72
75 years and upwards ...	5,558	3,745	9,303	6·40	5·81	6·14
Total ...	86,915	64,544	151,459	100·00	100·00	100·00

569. It will be noticed that in the period of ten years, over one-third of the males and nearly two-fifths of the females who died had not reached their fifth year; that a fourth of the males and not quite a third of the females were between 5 and 45 years of age; that nearly a fourth of the males, but only a sixth of the females, were between 45 and 65 years of age; and that about a sixth of the males and more than an eighth of the females were over 65 years of age; it will moreover be found that, on the average, the females who died were about 15 years younger than the males—about half the former being under and half over 17 years of age, whilst about half the latter were under and half over 32 years of age. Owing to the growing proportion of elderly people in the population, the proportions in 1893 are, it will be observed, higher at all age-periods over 55 than in the decennial period; also, as an accidental circumstance, that the proportions between 25 and 35 were higher in 1893 than during that period.

Proportion of deaths at different ages.

Proportion
of deaths at
each age to
population.

570. Amongst the influences which tend to impair the efficacy of the ordinary death rate as a standard for comparing the hygienic conditions of one country with those of another, or those of the same country at different periods, the most important is the variation in the age constitution of the living population, a disturbing influence which can only be eliminated by ascertaining the death rates at various age-periods. The exact ages of the population of Victoria having been ascertained at the censuses of 1881 and 1891, accurate results for comparisons are obtainable for this colony. These are shown in the following table by taking into account at successive age-periods the numbers of the population and the deaths for the year 1893, and for the ten years 1881 to 1890:—

PROPORTION OF DEATHS TO POPULATION AT EACH AGE,
1881-90 AND 1893.

Ages.	Mean Population.		Deaths.		Deaths per 1,000 living at each age.	
	Ten years, 1881 to 1891. *	Year 1893.	Mean of ten years, 1881 to 1890.	Year 1893.	Mean of ten years, 1881 to 1890.	Year 1893.
MALES.						
Under 5 years ...	66,730	106,824	2,989	3,360	44·79	31·45
5 to 10 „ ...	60,082	64,408	244	246	4·06	3·82
10 to 15 „ ...	56,580	57,537	150	143	2·65	2·48
15 to 20 „ ...	53,303	54,227	215	199	4·03	3·67
20 to 25 „ ...	52,124	60,123	331	274	6·35	4·56
25 to 35 „ ...	80,591	108,182	622	695	7·72	6·42
35 to 45 „ ...	52,622	54,032	591	559	11·23	10·35
45 to 55 „ ...	49,844	42,912	961	705	19·28	16·43
55 to 65 „ ...	35,220	39,604	1,171	1,276	33·25	32·22
65 to 75 „ ...	14,100	15,968	862	1,238	61·13	77·53
75 and upwards	4,053	3,753	556	856	137·18	228·08
All Ages ...	525,249	607,570	8,692	9,551	16·55	15·72
FEMALES.						
Under 5 years ...	65,082	104,478	2,568	2,809	39·46	26·89
5 to 10 „ ...	58,977	63,175	231	196	3·92	3·10
10 to 15 „ ...	55,848	57,244	143	139	2·56	2·43
15 to 20 „ ...	54,483	56,438	227	215	4·17	3·81
20 to 25 „ ...	52,870	61,176	307	282	5·81	4·61
25 to 35 „ ...	71,983	93,881	569	628	7·90	6·70
35 to 45 „ ...	45,362	46,966	496	445	10·93	9·48
45 to 55 „ ...	36,867	38,035	547	454	14·84	11·94
55 to 65 „ ...	22,606	27,840	531	635	23·49	22·81
65 to 75 „ ...	9,142	10,728	460	648	50·32	60·40
75 and upwards	2,907	2,799	375	506	129·00	180·78
All Ages ...	476,127	562,760	6,454	6,957	13·56	12·36

* The figures in this column, being derived from the numbers returned at the censuses of 1881 and 1891, both of which were taken at the beginning of April, represent the mean of a decennial period commencing and ending three months later than that for which the deaths are given in the next column but one, viz., that ended with the 31st December, 1890.

571. Comparing the figures in the last two columns it is found that, as regards both males and females, whilst in 1893 the total mortality at all ages was less than the average of the decade 1881-90, this diminution was confined to all ages under 65 both in the case of the males and the females, the death rate of males and of females of 65 and upwards having been higher in 1893 than in the decennial period.

Death rate at each age, 1893, compared with average.

572. In the next table the death rates of males and females at different ages in Victoria, England and Wales, Germany, and France are compared—the observations being in all cases for periods of ten years :—

Death rates in Victoria, England, Germany, and France.

DEATH RATE AT EACH AGE IN VICTORIA, ENGLAND, GERMANY, AND FRANCE.

Ages.	Annual Deaths per 1,000 of the Population.							
	Victoria.		England and Wales.		Germany.		France.	
	1881 to 1890.		1881 to 1890.		1871 to 1881.		Average of 10 Years.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
All ages ...	16·55	13·56	20·3	18·0	28·45	25·29	23·80	23·19
Under 5 years	44·79	39·46	58·7	49·7	81·4	73·2	84·55	75·45
5 to 10 "	4·06	3·92	5·2	5·2	8·8	8·7	10·49	11·04
10 to 15 "	2·65	2·56	3·0	3·2	3·9	4·2	5·36	6·41
15 to 20 "	4·03	4·17	4·4	4·5	5·3	4·9	10·34	8·41
20 to 25 "	6·35	5·81	5·8	5·7	8·2	7·0		
25 to 35 "	7·72	7·90	7·9	7·5	9·3	9·6	10·02	9·69
35 to 45 "	11·23	10·93	12·5	10·7	13·5	12·0	10·96	11·03
45 to 55 "	19·28	14·84	19·7	15·2	21·4	16·0	14·76	14·88
55 to 65 "	33·25	23·49	34·0	28·2	38·7	32·9	29·19	27·27
65 to 75 "	61·13	50·32	71·2	62·0	83·4	77·3	60·69	63·49
75 to 85 "	125·19	110·75	146·5	133·0	186·9	180·0	160·22	153·76

573. It will be noticed that the mortality of males at the age-period 20 to 25 and at all age-periods over 45, and that of females at the age-periods 25 to 45 and 65 to 75, is higher in Victoria than in England ; it is higher than in France in the case of males at from 35 to 75, but lower in the case of females at all age-periods, although the excess at the age-period 45 to 55 is very slight ; and it is lower than in Germany, in the case of both males and females, at all periods of life.

Death rate in Victoria and other countries compared.

574. It is very commonly believed that the conditions of life in Victoria are more fatal to children than those conditions in older

Death rate of children less in Victoria than elsewhere.

countries ; but the figures in the table prove the fallacy of this opinion so far as England, France, and Germany are concerned—the low mortality in Victoria, as compared with that obtaining in either of those countries, being especially marked at the age-periods under ten years.

575. According to the table, the death-rate during a term of ten years of females exceeds that of males at from 15 to 20 and from 25 to 35 in Victoria ; at from 10 to 20 in England and Wales ; at from 10 to 15 and from 25 to 35 in Germany ; and at from 5 to 15, from 35 to 55, and from 65 to 75 in France ; moreover, in England and Wales, at from 5 to 10, the death rates of males and females are equal. At every other period of life the death rate of males exceeds that of females in the countries named.

576. For the two decades ended with 1880 and 1890 respectively, and for the years 1892 and 1893 the “Adjusted death rates”* of males and females, are, in the following table, placed side by side with the “Ordinary death rates,” or those obtained by comparing the deaths with every 1,000 of the population of the same sex irrespective of age:—

“ORDINARY” AND “ADJUSTED” DEATH RATES, 1871 TO 1893.

Period.	Death Rate.			
	Ordinary.†	Adjusted.‡	Ordinary in excess of Adjusted Rate.	Adjusted in excess of Ordinary Rate.
MALES.				
1871 to 1880 ...	16·45	16·48	...	·03
1881 to 1890 ...	16·55	15·97	·58	...
1892 ...	14·99	14·07	·92	...
1893 ...	15·72	13·84	1·88	...
FEMALES.				
1871 to 1880 ...	14·15	14·64	...	·49
1881 to 1890 ...	13·56	13·85	...	·29
1892 ...	12·15	12·06	·09	...
1893 ...	12·36	11·48	·88	...

577. Comparing the death rates in 1881–90 with those in the previous decade, it is found that, according to the “Ordinary” and less reliable method of computation, there was an apparent increase in the mortality of males, amounting to ·10 per 1,000, but a decrease in that of females, amounting to ·59 per 1,000 ; whereas according to the “Adjusted,” or more correct method, there was a decrease in the case

* For the method of calculating the “Adjusted death rate” see *Victorian Year-Book*, 1892, Vol. I., paragraph 655 *et seq.*

† Per 1,000 of the actual population.

‡ Per 1,000 of the standard population.

Death rate of males and females in Victoria and other countries.

“Ordinary” and “Adjusted” death rates.

Results of the two methods in 1881-90 and 1871-80.

of both sexes, viz., of .51 per 1,000 in the case of the males, and of .79 per 1,000 in the case of females.

578. Comparing the death rates in 1893 with those in the previous year an increased mortality per 1,000 of .73 by the ordinary, but a decreased mortality of .23 by the adjusted method is shown in regard to the males, and an increased mortality per 1,000 of .21 by the ordinary but a decreased mortality of .58 by the adjusted method is shown in regard to the females.

Results of the two methods in 1892 and 1893.

579. The average mortality of both males and females at all ages is much lower in Victoria than in England, Germany, or France, but the difference is not so great when the new method of comparison is used ("Adjusted" death rate) as it is when the old one is used ("Ordinary" death rate). Thus, according to the old method, deaths of males per 100,000 living are, in England, 380, in Germany, 1,190, and in France, 725, more than in Victoria; but, according to the new method, only 265 more in England, 775 more in Germany, and 718 more in France. And, according to the old method, deaths of females per 100,000 living are, in England, 440, in Germany, 1,173, and in France, 963, more than in Victoria; but, according to the new method, only 226 more in England, 749 more in Germany, and 782 more in France. The following are the figures:—

Death rates by the two methods in Victoria, England, Germany, and France.

ORDINARY AND ADJUSTED DEATH RATES IN VICTORIA, ENGLAND, GERMANY, AND FRANCE.

Country.	Period.	Ordinary Death Rate.		Adjusted Death Rate.	
		Males.	Females.	Males.	Females.
Victoria ...	1881-90	16.55	13.56	15.97	13.85
England ...	"	20.30	18.00	18.62	16.11
Germany ...	1871-81	28.45	25.29	23.72	21.34
France ...	10 years	23.80	23.19	23.15	21.67

580. The mortality of infants in 1893, in proportion to the number born, was considerably below the average. The total number under 1 year of age who died in 1893 was 4,302, and as the births numbered 36,552, it follows that 1 infant died to every 8.5 births, or 11.8 infants to every 100 births. In the 27 years 1866 to 1892, the proportion of infants dying before completing their first year was 12.44 to every 100 births.*

Infantile mortality, 1893.

581. It has already been stated that more boys are born than girls, but the balance of the sexes is to a certain extent maintained by more

Mortality of male and female infants.

* See table following paragraph 588 post.

male than female infants dying. This is shown in the following table, which contains a statement, for two recent decades and for each of the last seven years, of the number of births of boys and girls, and of the deaths of each before completing their first year, together with the proportion of deaths of infants of either sex to the births of the same sex:—

MORTALITY OF MALE AND FEMALE INFANTS, 1871 TO 1893.*

Period.	Annual Births.		Deaths at under 1 Year of Age.			
	Boys.	Girls.	Annual Number.		Number per 100 Births.	
			Boys.	Girls.	Boys.	Girls.
1871-80 ...	13,728	13,144	1,782	1,482	12·98	11·28
1881-90 ...	16,006	15,251	2,158	1,805	13·48	11·83
1887 ...	16,876	16,167	2,354	1,942	13·95	12·01
1888 ...	17,617	16,886	2,390	2,011	13·57	11·91
1889 ...	18,713	17,646	2,989	2,560	15·97	14·51
1890 ...	19,175	18,403	2,372	2,040	12·37	11·09
1891 ...	19,598	18,907	2,575	2,285	13·14	12·09
1892 ...	19,405	18,426	2,196	1,845	11·32	10·01
1893 ...	18,823	17,729	2,338	1,964	12·42	11·08

Mortality of male greater than of female infants.

582. According to a previous paragraph,† the births of male infants in a series of years were in the proportion of about 105 to 100 female infants, and the numbers in this table point to a proportion of 120 deaths of the former to 100 of the latter. It will be noticed that in every one of the years deaths of male infants very much exceeded those of female infants; and as the numbers living were about equal (the excess, if any, being slightly in favour of male infants), the greater tendency of boys than of girls to die before completing one year of life may be considered to be invariable.

Proportion of infants dying to births.

583. In proportion to every 1,000 born, the number of male infants dying varied from 118 in 1873 to 151 in 1875 and 1882, and 160 in 1889, and that of female infants dying from 103 in 1876 to 134 in 1875, and 145 in 1889—the mean number dying per 1,000 births during the ten years ended with 1880 being 130 of the former and 113 of the latter; and in the ten years ended with 1890, 135 and 118 respectively. In 1893, deaths of male infants occurred in the proportion of 124, and deaths of female infants in the proportion of 111 to every 1,000 of either sex born.

Deaths of infants at different ages.

584. In classifying the deaths of infants, those are distinguished which occur at under 1 month of age, at from 1 to 3 months, at from

* For detailed particulars relating to each year, see *Victorian Year-Book* for 1890-91, Vol. I., paragraph 579.

† See paragraph 503 *ante*.

3 to 6 months, and at from 6 to 12 months. The numbers of these during 1893, and the ten years ended with 1890, are shown in the following table, together with the proportion of deaths at each of those periods of age and the number at each such period to every 100 births. It will be noticed that in 1893 the mortality of both male and female infants was below the average up to the age of 6 months, but slightly above it between 6 and 12 months :—

AGE AT DEATH OF MALE AND FEMALE INFANTS.

Ages.	Deaths at under 1 Year of Age.				
	Year 1893.			Average of 10 Years, 1881-90.*	
	Number.	Percentage at each Age.	Number per 100 Births.	Percentage at each Age.	Number per 100 Births.
Boys.					
Under 1 month ...	698	29·86	3·71	30·99	4·20
1 to 3 months ...	365	15·61	1·94	17·92	2·37
3 to 6 months ...	532	22·75	2·82	22·26	3·01
6 to 12 months ...	743	31·78	3·95	28·83	3·90
Total ...	2,338	100·00	12·42	100·00	13·48
GIRLS.					
Under 1 month ...	517	26·32	2·92	27·41	3·24
1 to 3 months ...	331	16·85	1·87	18·68	2·21
3 to 6 months ...	459	23·37	2·59	23·01	2·73
6 to 12 months ...	657	33·46	3·70	30·90	3·66
Total ...	1,964	100·00	11·08	100·00	11·84

585. During the period of ten years, the mortality of male infants in proportion to the number born exceeded that of female infants at each of the age-periods. This was more especially the case in the first month of life; when the excess of the former was nearly a third; in the next two months this excess was reduced to about a fourteenth, in the next three months to about a tenth, and in the next six months to about a fifteenth.

More deaths of male than female infants at all ages.

586. In the same period of ten years, nearly a third of the male and nearly two-sevenths of the female infants who died before they were a year old did so in the first month after birth; about two-elevenths of both males and females in the next two months; between a fourth and fifth of both males and females in the next three months; between a third and a fourth of the males, and not quite a third of the females, in the next six months.

Periods at which infants die.

* For corresponding average for 1871-81, see *Victorian Year-Book*, 1889-90, Vol. I., table following paragraph 635.

Probable
mortality
of infants.

587. As a practical result of these calculations, it may be mentioned that of every 20,000 newly-born boys and girls in equal numbers, 420 of the former and 324 of the latter may be expected to die before they are a month old ; 237 more boys and 221 more girls may be expected to die between one and three months of age ; 301 more boys and 273 more girls between three and six months ; 390 more boys and 366 more girls between six and twelve months. At the end of a year it is probable that 1,348 of the boys and 1,184 of the girls will have died, and 8,652 of the former and 8,816 of the latter, or 17,468 of mixed sexes, will be still living.

Infantile
mortality
in Austral-
asian
Colonies.

588. The following table shows the number of births, the number of deaths of infants under one year, and the proportion of the latter to the former, in each of the colonies of the group, for 1892, also for one quinquennial and two successive decennial periods (except in regard to Western Australia, for which the information is given at the foot of the table for the seven years ended with 1892). All the calculations were made in the office of the Government Statist, Melbourne :—

INFANTILE MORTALITY IN AUSTRALASIAN COLONIES.

Period.*	Annual Births.	Annual Deaths at under 1 Year of Age.		Annual Births.	Annual Deaths at under 1 Year of Age.		Annual Births.	Annual Deaths at under 1 Year of Age.		
		Number.	Proportion to 100 Births.		Number.	Proportion to 100 Births.		Number.	Proportion to 100 Births.	
		VICTORIA.			NEW SOUTH WALES.			QUEENSLAND.		
1866-70	26,210	3,383	12·91	18,529	1,945	10·50	4,524	575	12·71	
1871-80	26,871	3,265	12·15	23,411	2,566	10·96	6,681	866	12·96	
1881-90	31,257	3,963	12·68	34,718	4,130	11·90	11,913	1,506	12·64	
1891 ...	38,505	4,861	12·62	39,458	4,691	11·89	14,715	1,489	10·12	
1892 ...	37,831	4,041	10·68	40,041	4,245	10·60	14,903	1,591	10·68	
Mean of 27 Years.	29,210	3,634	12·44	27,905	3,170	11·36	8,822	1,099	12·50	
		SOUTH AUSTRALIA.			TASMANIA.			NEW ZEALAND.		
1866-70	7,013	1,092	15·57	2,936	294	10·01	9,354	907	9·70	
1871-80	8,270	1,227	14·84	3,248	339	10·44	14,810	1,481	10·00	
1881-90	10,682	1,319	12·01	4,515	477	10·56	19,055	1,666	8·74	
1891 ...	10,737	976	9·09	4,971	470	9·45	18,273	1,667	9·12	
1892 ...	10,570	1,022	9·67	4,965	492	9·91	17,876	1,594	8·92	
Mean of 27 Years.	9,218	1,220	13·23	3,787	392	10·35	15,614	1,454	9·31	

NOTE.—In Western Australia the proportions for the last seven years were as follow :—1886, 15·48 ; 1887, 15·68 ; 1888, 12·38 ; 1889, 8·79 ; 1890, 8·97 ; 1891, 11·98 ; 1892, 14·07 ; or an average of 12·48 for the seven years.

* For information relating to individual years prior to 1891, see issue of this work for 1890-91, Vol. I., table following paragraph 586.

589. For many years the returns of South Australia showed a very high infantile death rate, much higher than that in any of the other Australasian Colonies. It has since, however, been stated that the apparently high rate referred to had no existence in reality, but was due to the ages of young children and infants having been incorrectly classified through a misunderstanding on the part of the registering officers. Latterly this has been rectified, with the result that for several years past the infantile death rate of South Australia, as officially stated, has compared favorably with that of the other colonies.*

Apparently high infantile death rate in South Australia explained.

590. In the following lists the colonies are placed in order according to their respective rates of infantile mortality, the colony with the highest rate being placed first, and the rest in succession. The rate in 1892 was highest in Western Australia, Victoria with Queensland standing second. Over a series of years Victoria occupied the fourth position, being below South Australia, Western Australia, and Queensland :—

Order of colonies in respect to infantile mortality.

ORDER OF COLONIES IN REFERENCE TO INFANTILE MORTALITY.

Order in 1892.	Order over a Series of Years.
1. Western Australia. 2. { Victoria. { Queensland. 3. New South Wales. 4. Tasmania. 5. South Australia. 6. New Zealand.	1. South Australia. 2. Western Australia.† 3. Queensland. 4. Victoria. 5. New South Wales. 6. Tasmania. 7. New Zealand.

591. Of all the countries respecting which the information is procurable, infantile mortality is highest in the German States, Austria, Russia, and Italy. In France it is just below the average of the whole of the countries, and in England and Belgium it is next below that in France; then follow Denmark and Sweden; Victoria, Queensland, and Western Australia stand just below Sweden; South Australia, New South Wales, and Tasmania below these and

Infantile mortality in various countries.

* See issue of this work for 1889-90, Vol. I., paragraph 640.

† According to an average of seven years only.

Scotland; whilst New Zealand and Ireland stand below all the other countries:—

INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Deaths under 1 Year of Age to 100 Births.			Deaths under 1 Year of Age to 100 Births.		
Wurtemberg	...	31·25	Sweden	...	13·19
Bavaria	...	30·84	Victoria	...	12·68
Saxony	...	28·22	Queensland	...	12·64
Baden	...	26·17	Western Australia	...	12·26
Austria	...	25·63	Scotland	...	12·20
Russia in Europe	...	25·50	South Australia	...	12·01
Alsace-Lorraine	...	21·27	New South Wales	...	11·90
Italy	...	20·97	Tasmania	...	10·56
Prussia	...	20·78	Norway	...	10·49
Holland	...	19·32	Ireland	...	9·50
Switzerland	...	18·79	New Zealand	...	8·74
France	...	16·60			
England	...	14·92	Mean of the countries		
Belgium	...	14·82	named ...	...	17·50
Denmark	...	13·75			

NOTE.— The information respecting all the countries except the Australasian Colonies and Ireland is based upon the average of the nineteen years ended with 1883. That respecting the Australasian Colonies, except Western Australia, which is for five years, is based on the average of the ten years ended with 1890, and that respecting Ireland is for the year 1890. All the figures have been derived from official documents.

Infantile
mortality
in Mel-
bourne and
country.

592. The infantile mortality of large towns is naturally always above that in country districts. Thus the deaths at under 1 year of age in Melbourne and suburbs (Greater Melbourne) during the 21 years ended with 1893 averaged $16\frac{1}{2}$ per 100 births, whilst in the extra-metropolitan districts of Victoria the mortality of infants at the same period of life averaged less than 10 per 100 births. The following table shows the death rate of infants in the metropolis and in the other districts of the colony during the eight years 1873 to 1880 and in each subsequent quinquennial period, also in 1891, 1892, and 1893:—

INFANTILE MORTALITY IN AND OUTSIDE OF GREATER MELBOURNE, 1873 TO 1893.

Period.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.	
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.
		GREATER MELBOURNE.		VICTORIA, OUTSIDE GREATER MELBOURNE.		
1873 to 1880	66,787	11,252	16·85	147,138	14,946	10·16
1881 to 1885	51,883	8,847	17·05	88,375	8,196	9·16
1886 to 1890	77,962	13,411	17·20	94,345	9,171	9·72
1891 ...	18,018	2,862	15·88	20,487	1,999	9·76
1892 ...	17,399	2,237	12·86	20,432	1,805	8·83
1893 ...	15,338	2,210	14·41	21,214	2,092	9·86
Sums and means }	247,387	40,819	16·50	391,991	38,209	9·75

593. In Brisbane and Adelaide the rate of infantile mortality is higher, and in Hobart and Wellington lower, than in Melbourne and Sydney—the rate in these two being nearly identical. In the four last-named cities the rate of infantile mortality compares favorably with that in the majority of the following towns, which are arranged in order according to the extent to which infantile mortality prevails in each :—

Infantile mortality in English and Australasian towns.

INFANTILE MORTALITY IN TOWNS OF ENGLAND AND AUSTRALASIA, 1877 TO 1886.

	Deaths under 1 Year of Age to 100 Births.		Deaths under 1 Year of Age to 100 Births.
Preston	21·8	Sheffield	16·3
Leicester	20·1	Bradford	16·2
Blackburn	18·7	Hull...	16·1
Liverpool	18·3	Twenty-eight English Towns	16·1
Salford	17·8	Newcastle	16·0
Bolton	17·7	Wolverhampton	15·9
Nottingham	17·5	Halifax	15·9
Manchester	17·4	Sunderland	15·7
Brisbane (1883 to 1887)	17·4	Plymouth	15·7
Norwich	17·3	London	15·2
Adelaide (1884 to 1887)	17·2	Brighton	14·8
Leeds	17·2	Bristol	14·5
Cardiff	16·9	Hobart (1883 to 1887)	14·5
Huddersfield	16·9	Derby	14·3
Oldham	16·9	Wellington (1883 to 1887)	14·2
Melbourne (1878 to 1888)	16·9	Portsmouth	13·8
Sydney (1878 to 1888)	16·8	Birkenhead	13·7
Birmingham	16·4		

594. In, or in connexion with, the Women's Hospital, Melbourne, 858 children were born alive during the year ended with 30th June, 1893, and of these 27, or about 3 per cent., died whilst under the care of the institution. In the previous year, 3 per cent.; in 1890-91, 3 per cent.; in 1889-90, 4½ per cent.; in 1888-9, 4 per cent.; in 1887-8, 3 per cent.; in 1886-7, 4 per cent.; in 1885-6, 4¾ per cent.; in 1884-5 and 1883-4, 9 per cent.; in the year 1882-3, 7 per cent.; in 1881-2 (eighteen months), 11½ per cent.; and in the year 1880, 5½ per cent. of the infants born in the Women's Hospital, or outside under the supervision of its medical officers and committee, died before the mother had been discharged. It is satisfactory to find that the proportions in the last eight years were the lowest recorded in the institution; at the same time it may be pointed out that, in consequence of the bad class of cases which come to maternity hospitals for treatment, the infants who die in such institutions, in proportion to the numbers born, are, all over the world, in excess of a similar proportion outside.

Deaths of infants in Women's Hospital.

595. In the year 1893 deaths of male children under 5 years of age numbered 3,360, and deaths of female children under that age numbered

Deaths of children under 5.

2,809—the former being in the proportion of about 35 per cent., and the latter of about 40 per cent., to the total number of deaths at all ages. These proportions are above the average of recent years, the increase being doubtless due to the measles epidemic already alluded to. Comparing the average of the last decade with that of the previous one, a marked falling-off took place in the mortality of children relatively to that of persons of all ages, which is accounted for by the fact that the proportion of children to the total population has been diminishing from year to year, and is now very much lower than it was in the earlier period referred to. The following table shows the annual number of such deaths at each year of age, and their proportion to the deaths at all ages, in each of the last three years and during the two decennial periods ended with 1880 and 1890 respectively:—

DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE,
1871 TO 1893.

Period.	Years of Age at Death (last birthday).					Total Deaths under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion per 100 deaths at all ages.
MALES.							
1871-80 ...	1,783	508	206	148	119	2,764	39·41
1881-90 ...	2,158	464	161	114	92	2,989	34·28
1891 ...	2,575	498	145	122	103	3,443	32·33
1892 ...	2,196	438	142	99	71	2,946	32·38
1893 ...	2,338	613	211	117	81	3,360	35·18
FEMALES.							
1871-80 ...	1,482	482	198	139	106	2,407	46·06
1881-90 ...	1,805	423	151	105	84	2,568	39·61
1891 ...	2,286	463	146	103	77	3,075	38·57
1892 ...	1,845	392	151	81	66	2,535	37·55
1893 ...	1,964	517	166	92	70	2,809	40·38

596. During the ten years ended with 1890, deaths of male children under 5 numbered 29,884, and deaths of female children under 5 numbered 25,679, and thus the former exceeded the latter by 4,205, or by 16 per cent. The deaths of male children in all the years bore a much smaller proportion to the total deaths of males than the deaths of female children did to the total deaths of females, a circumstance

More boys
die than
girls.

mainly due to the small proportion of adults in the female as compared with that in the male population. During the same period the mortality of boys under 5 amounted to over 34 per cent., and that of girls under 5 amounted to nearly 40 per cent. of the whole mortality of their respective sexes. In none of the years to which the table relates did the former exceed 45 per cent., or the latter exceed 53 per cent., of that mortality.

597. The average number of male and female children at each year of age under 5 living, during the period of ten years [ended with 1890, are compared in the next table with the average number of deaths of children of the same sexes at those ages which occurred annually during that period:—

Number of children under 5 and their deaths.

NUMBER AND DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE, 1881 TO 1890.

Age last Birthday.	Males.				Females.			
	Mean Number Living, 1881 and 1891.	Mean Annual Deaths, 1881 to 1890.	Per-centage of Deaths at each age.	Deaths per 1,000 Children Living.	Mean Number Living, 1881 and 1891.	Mean Annual Deaths, 1881 to 1890.	Per-centage of Deaths at each age.	Deaths per 1,000 Children Living.
0 ...	14,229	2,158	72.20	151.66*	13,891	1,805	70.29	129.94*
1 ...	13,123	464	15.52	35.36	12,778	423	16.47	33.10
2 ...	13,453	161	5.39	11.97	12,938	151	5.88	11.67
3 ...	13,005	114	3.81	8.77	12,818	105	4.09	8.19
4 ...	12,727	92	3.08	7.23	12,506	84	3.27	6.72
Total...	66,537	2,989	100.00	44.92	64,931	2,568	100.00	39.55

598. During the period to which the table refers, the mean number of children of both sexes under 5 living was 131,468, and the mean number of deaths of such children was 5,557, whence it results that 42 in every 1,000 children under 5, or about 1 in 24, died annually, as compared with 44 per 1,000 in the previous 11 years. In every 1,000 boys the proportion who died annually was 45, or 1 in 22, whilst in every 1,000 girls it was 40, or 1 in 25, whereas in the previous eleven years the proportion per 1,000 was 47 for males and 41 for females.

Proportion of children dying annually.

599. Of every 1,000 boys under 1 year of age, 152, and of every 1,000 girls under 1 year of age, 130, died annually in the decade under

Proportion of infants dying annually.

* These results, being based upon infants living at any one time instead of annual births, are naturally in excess of those given for the corresponding period in the last two columns of table following paragraph 581 ante

notice; the corresponding proportions for the previous ten years being 146 and 125 respectively. These are higher proportions than those quoted in the table showing the comparison of deaths of children under 1 with the births, the proportions in which were 135 deaths of male infants and 118 deaths of female infants to every 1,000 births of infants of those sexes respectively during the recent decade, and 130 and 113 respectively during the previous one.*

More boys
died than
girls.

600. In proportion to their respective numbers in the population, more boys than girls died at every year of age, the difference per 1,000 living being as much as 22 at under 1,† but only about 2 at from 1 to 2, and less than 1 at subsequent ages.

Boys and
girls dying
under 1.

601. According to the figures, deaths of boys under 1 year of age furnish a larger proportion to the total deaths of boys under 5 than deaths of girls under 1 do to the total deaths of girls under 5, but the reverse is the case at each of the years of age after the first.

Proportion
of deaths
of children
at each age.

602. Of the whole number of children who died before they attained the age of 5, nearly three-fourths, viz., 72 per cent. of the boys, and 70 per cent. of the girls, were under 1 year of age; less than a sixth of the boys and about a sixth of the girls were between 1 and 2; about 1 in 18 of the boys and about 1 in 17 of the girls were between 2 and 3; 1 in 26 of the boys and 1 in 24 of the girls were between 3 and 4; 1 in 32 of the boys and 1 in 30 of the girls were between 4 and 5.

Probable
mortality
of children
under 5.

603. It results from actuarial calculations, based upon the figures in this and a previous table,‡ that of every 20,000 boys and girls in equal numbers born in Victoria, 1,348 boys and 1,184 girls may be expected to die before they complete a year of life, 301 more boys and 287 more girls before they complete 2 years, 99 more boys and 99 more girls before they complete 3 years, 72 more boys and 69 more girls before they complete 4 years, and 59 more boys and 56 more girls before they complete 5 years. At the end of that period it is probable that 1,879 of the boys and 1,695 of the girls will have died; and 8,121 of the boys and 8,305 of the girls will be still living. This result is more favorable than that deduced from the mortality of the decade 1871-80, which showed the number of survivors at the

* See table following paragraph 581 *ante*.

† See also paragraph 597 *ante*.

‡ See table following paragraph 584, from which probable deaths at under 1 year of age have been deduced; also paragraph 587 *ante*. Probability of death at other ages under 5 has been calculated from the numbers in the last table.

end of the first five years of life to be 8,015 for boys and 8,195 for girls, or 16,210 for children of mixed sexes.

604. The persons who died at the age of 80 or upwards numbered 682 in 1893, as against 695 in 1892 and 831 in 1891. Those in 1893 consisted of 403 males and 279 females. Sixty-six of the males and 38 of the females had passed the age of 90, and 5 males and 2 females had passed the age of 100. The following are the exact registered ages of such persons in the last 23 years :—

DEATHS OF OCTOGENARIANS, 1871 TO 1893.

Years of Age.	Year 1893.		Eleven Years, 1882-92.		Eleven Years, 1871-81.	
	Males.	Females.	Males.	Females.	Males.	Females.
80	70	39	599	411	253	144
81	48	35	354	251	135	98
82	50	34	463	269	119	97
83	41	25	333	217	101	75
84	31	22	385	260	115	79
85	29	30	287	206	91	70
86	25	18	215	174	63	61
87	14	19	195	160	65	46
88	16	6	147	135	48	38
89	13	13	96	96	35	26
90	15	12	107	92	26	37
91	7	3	61	61	10	16
92	9	7	54	57	18	18
93	13	4	35	41	9	8
94	2	5	29	27	14	8
95	7	3	22	21	16	9
96	3	2	15	8	11	4
97	3	...	12	12	3	4
98 ... ..	...	...	13	12	5	2
99	2	...	11	10	8	...
100	2	...	12	8	2	5
101 ... ..	...	1	4	5	1	2
102	1	1	6	4	3	...
103	2	...	3	2	1	2
104 ... ..	...	...	3	3	2	1
105 ... ..	...	...	1	2	2	...
106 ... ..	...	...	4	1	...	1
107 ... ..	...	...	...	2	...	...
108 ... ..	...	...	1	...	...	...
109 ... ..	...	...	1	...	...	...
110 ... ..	...	...	...	...	...	1
111 ... ..	...	...	1	...	...	...
114 ... ..	...	...	...	...	...	1
Unspecified ... ..	...	...	...	...	135*	98*
Total	403	279	3,469	2,547	1,291	951

* These figures are those relating to the years 1871 and 1872, in which the exact ages of octogenarians were not noted.

Deaths of
octogena-
rians, 1882
to 1892.

605. In the 11 years ended with 1892, 3,469 males and 2,547 females died in Victoria at the age of 80 or upwards. The deaths of males and females at all ages during the same period numbered 99,655 and 73,984 respectively, therefore 1 male in every 29 males who died, and 1 female in every 29 females who died, had lived to be upwards of 80 years of age. In the same period, 395 of the males, or 1 in 252, and 368 of the females, or 1 in 201, had lived to be 90 years of age or upwards; and 36 of the males, or 1 in 2,768, and 27 of the females, or 1 in 2,740, had lived to be upwards of 100 years of age. Owing to the rapidly increasing proportion of old people in the population, these proportions are much higher than those prevailing in the preceding period of 11 years ended with 1881, when only 1 male in every 56 males and 1 female in every 58 females who died were upwards of 80 years of age; only 1 male in 496, and 1 female in 413, were upwards of 90 years; and only 1 male in 5,912, and only 1 female in 3,776 were upwards of 100 years.

Average age
at death.

606. The average age at death in 1893 was 32 years. For males the average was 34·34 years, or about 34 years and 4 months, and for females it was 28·78 years, or about 28 years and 9 months; the females being thus on the average about 5½ years younger than the males. Owing to the measles epidemic, which lowered the average age at which death occurred, these proportions were below those in the previous two years. The following figures show the average age at death according to the means of the 23 years 1852–74, the mean of each of the three succeeding quinquennial periods, and each of the four years ended with 1893:—

AVERAGE AGE AT DEATH IN VICTORIA.

			Males. Years.		Females. Years.
23 years—1852 to 1874	...	...	21·70	...	15·01
5 years—1875 to 1879	...	...	27·98	...	22·22
5 years—1880 to 1884	...	...	32·15	...	26·59
5 years—1885 to 1889	...	...	32·59	...	27·10
1890	...	...	33·57	...	27·57
1891	...	...	35·86	...	29·98
1892	...	...	35·45	...	30·19
1893	...	...	34·34	...	28·78

607. It should be explained that the average age of death, as given above, would not give a correct idea of the average duration of life, even if the ages of the population were in a normal condition. In an increasing population the former must be always considerably below the latter, in consequence of the undue proportion of children, which tends to lower the average age. A knowledge of the average duration of life can only be accurately obtained from a life table based upon actuarial calculations of a complex character. According to a life table constructed by Mr. A. F. Burridge, F.I.A., of London, based upon the mortality experienced in the ten years 1870–81, the average duration of life (technically called “expectation of life” or “mean after lifetime”) of males in Victoria is 46·37 years. Mr. Burridge did not publish a table for females in Victoria separately, but he gave a table for Victoria, New South Wales, and Queensland combined, according to which the “expectation of life” in the three colonies is 46·47 years for males and 49·64 years for females.* In England and Wales, according to the most recent life table, the “expectation of life” is 41·92 years for males and 45·25 years for females, so that, if the figures relating to the two countries hold good, an Australian male may expect to live 4·55 years longer than an Englishman, and an Australian female 4·39 years longer than an Englishwoman.

Expectation
of life in
Victoria
and
England.

608. The system of classifying the causes of death in Victoria was changed in 1886 in accordance with a system which had been adopted in England a few years previously. This new mode of classification was based upon one devised by a committee composed of members of the Royal College of Physicians, London, and was published by them, first in 1869, and afterwards, in a revised form, in 1885. The system of classification, now adopted, has superseded that of the late Dr. Farr, which, until the new system was introduced, had been the mode used for classifying the causes of death both in England and Wales and in the Australasian Colonies. A full account of the difference

New classi-
fication
adopted in
Victoria.

* See *Journal of the Institute of Actuaries*, Vol. XXIV., page 351. Prior to this (Vol. XXIII., page 325), Mr. Burridge published a life table for both sexes, based, however, upon the results of only one year (1879). According to this table the “expectation of life” in Victoria would be—males 49·20, females 52·33 years.

between the two systems was given in the *Victorian Year-Book*, 1886-7.*

Nosological
Index.

609. A Nosological Index was compiled by the present writer over 30 years since, under the sanction of the then Registrar-General, Mr. W. H. Archer, F.I.A., to be used in connexion with Dr. Farr's classification, in order to facilitate the bringing of all the circumstances resulting in death under classified heads, also for the guidance of deputy-registrars in receiving, and of medical men in supplying, information respecting the causes of death, and of officers of charitable and other public institutions in preparing statistical tables of the deaths and sickness occurring therein. The adoption of a new system of classification has made it necessary that the Nosological Index should be completely altered to suit the change. This has been done according to the best knowledge possessed by the Department of the Government Statist, Melbourne, the place to be assigned to each disease or cause of death having been carefully considered by experienced officers and compared with the revised nomenclature proposed by the Royal College of Physicians. At the same time the opportunity has been taken greatly to increase the number of entries in the Index.†

Victorian
Index
in use
throughout
Austral-
asia.

610. From the date of its publication until the adoption of the new classification in 1886 the former Index had been in general use in the registration departments of all the Australasian Colonies, some of which received such a supply of copies as they required from the Victorian Government, and others reprinted the work. Most of the colonies have now adopted the new system. To all the colonies adopting this system the revised Index is found as indispensable as the former one proved itself to be during a period of twenty-five years in connexion with the system which has been abandoned.

Causes of
death
classified.

611. The following table shows the causes of death in classified arrangement; the total number and the number of Chinese and Aborigines who died from each cause during 1893, also the total number

* Paragraph 635 *et seq.*

† A copy of the new Nosological Index was published in the *Victorian Year-Book*, 1886-7, page 853 *et seq.* Copies can be obtained at a small cost from the Government Printer, Melbourne.

who died from each cause during the ten year periods ended with 1890 and with 1880 :—

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT.
(10 Years : 1871 to 1880, and 1881 to 1890 ; and Year 1893.)

Class.	Sub-Class.	Causes of Death.*	Number of Deaths.				
			Ten Years.		Year 1893.		
			1871-80.	1881-90.	Total. †	Chinese.	Aborigines.
		All Causes	122,570	151,459	16,508	229	19
		CLASSES.					
I.	...	SPECIFIC FEBRILE OR ZYMOTIC DISEASES :— Zymotici (ζύμη, leaven). Diseases of the whole body, dependent on morbid poisons.	28,430	23,270	2,262	14	5
II.	...	PARASITIC DISEASES :—Parasitici (παράσιτος, parasite). Diseases dependent on animal or vegetable parasites.	734	764	77	1	...
III.	...	DIETIC DISEASES :—Dietici (δίαιτα, way of life ; diet). Diseases produced by errors of diet.	1,979	2,163	147	7	...
IV.	...	CONSTITUTIONAL DISEASES :—Ca- chectici (κακεξία, bad habit of body). This class, according to the nomenclature of the Royal College of Physicians, is designated "Diseases of the whole body—not classed." The term used by Dr. Farr in the old classification, however, is retained; Dr. Farr's definition being as follows :—"Sporadic diseases affecting several organs in which new morbid products are often deposited; sometimes hereditary."	17,205	24,011	2,876	46	1
V.	...	DEVELOPMENTAL DISEASES :—Me- tamorphici (μεταμόρφωσις, change of form). Special diseases, the incidental result of the formative and nutritive processes.	6,042	10,617	1,231	29	4
VI.	...	LOCAL DISEASES :— Monorganici (μόνος, alone, without others ; ὄργανον, organ). Sporadic diseases, in which the functions of particular organs or systems are disturbed or obliterated, with or without inflammation.	51,209	69,213	7,922	97	9
VII.	...	VIOLENT DISEASES OR DEATHS :— Thanatici (θάνατοι, violent deaths). Diseases which are the evident and direct results of physical or chemical forces, acting either by the will of the sufferer, of other persons, or accidentally.	8,607	9,678	997	15	...
VIII.	...	ILL-DEFINED AND NOT SPECIFIED CAUSES. This group includes several diseases which were formerly classed under specific heads, such as dropsy, debility, tumor, abscess, &c.	8,364	11,743	996	20	...

* The definitions given in this column are chiefly those of the late Dr. Farr.

† The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(10 Years: 1871 to 1880, and 1881 to 1890; and Year 1893.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.					
			Ten Years.		Year 1893.			
			1871-80.	1881-90.	Total.*	Chinese.	Aborigines.	
		SUB-CLASSES.						
I.	1	Miasmatic diseases	15,459	10,949	1,390	5	4	
	2	Diarrhœal diseases	11,036	10,375	688	5	1	
	3	Malarial diseases	213	72	5	1	...	
	4	Zoogenous diseases	1	8	1	...	...
	5	Venereal diseases	377	425	43	1	...	
	6	Septic diseases	1,344	1,441	135	2	...	
II.	...	Parasitic diseases	734	764	77	1	...	
III.	...	Dietic diseases	1,979	2,163	147	7	...	
IV.	...	Constitutional diseases	17,205	24,011	2,876	46	1	
V.	...	Developmental diseases	6,042	10,617	1,231	29	4	
VI.	1	Diseases of the nervous system	13,532	15,999	1,521	16	1	
	2	Diseases of the organs of special sense	?	80	16	...	...
	3	Diseases of the circulatory system	6,804	10,651	1,425	28	1	
	4	Diseases of the respiratory system	15,534	21,285	2,221	38	4	
	5	Diseases of the digestive system	11,240	14,949	1,956	8	1	
	6	Diseases of the lymphatic system and ductless glands	44	105	15	2	...	
	7	Diseases of the urinary system	1,875	3,767	526	3	...	
	8	Diseases of the organs of generation	295	339	40	...	...
	9	Diseases of parturition	1,267	1,213	98	...	1	
	10	Diseases of the organs of locomotion	290	375	55	1	...	
	11	Diseases of the integumentary system	328	450	49	1	1	
VII.	1	Accident or negligence	7,447	8,274	810	7	...	
	2	Homicide	190	290	52	1	...	
	3	Suicide	951	1,101	134	7	...	
	4	Execution	19	13	1	...	...
VIII.	...	Ill-defined causes, or unspecified	8,364	11,743	996	20	...	
		DISEASES, ETC.						
I.	1	Small-pox	2	7	...	...	...
		Chicken-pox	13	14	3	...	...
		Measles	2,080	534	659	1	4	
		Epidemic rose rash ... ..	...	8	1	...	...
		Scarlet fever	4,101	430	21	...	...
		Influenza	276	398	206	1	...	
		Whooping-cough	1,974	1,392	117	...	...
		Mumps ... ..	...	7	4	...	...
		Diphtheria †	3,040	2,566	120	...	...
		Cerebro-spinal fever ... ..	...	7	...	...	...
		Simple continued fever	3,973	5,585	259	3	...	
		Typhoid (or enteric) fever						
		Others ... ..	...	1	...	...	...
	2	Cholera (simple)	523	834	90	...	...
		Diarrhœa	7,667	8,304	495	2	1	
		Dysentery	2,846	1,237	103	3	...	
	3	Remittent fever	169	42	1	...	...
		Ague	44	27	2	...	...

* The Chinese and Aborigines are included in this column.

† See also Croup (VI., 4.).

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(10 Years : 1871 to 1880, and 1881 to 1890 ; and Year 1893.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years.		Year 1893.		
			1871-80.	1881-90.	Total.	Chinese.	Aborigines.
DISEASES, ETC.— <i>continued.</i>							
I.	3	Beri-beri ... ..	...	3	2	1	...
	4	Glanders	1	...	...	...	...
		Cow-pox and other effects of vaccination	?	8*	1	...	...
	5	Syphilis	286	332	29	1	...
		Gonorrhœa, stricture of the urethra	91	93	14	...	...
	6	Phagedæna	?	5*	2	...	...
		Erysipelas	619	426	26	2	...
		Pyæmia, septicæmia †	264	370	26	...	...
		Puerperal fever ‡	461	640	81	...	...
II.	...	Thrush	327	220	12	...	...
		Others from vegetable parasites ...	?	1*	...	...	...
		Hydatids	379	537	65	1	...
		Others from animal parasites ...	28	6	...	...	...
III.	...	Starvation, want of breast-milk ...	1,322	1,192	82	6	...
		Scurvy §	?	6*	1	...	...
		Intemperance	646	950	63	...	...
		Other dietic diseases	11	15	1	1	...
IV.	...	Rheumatic fever, rheumatism of heart	817	799	29	...	...
		Rheumatism			66	...	...
		Gout	133	197	32	...	...
		Rickets	?	16	2	...	...
		Cancer, malignant disease || ...	2,957	4,864	734	13	1
		Tabes mesenterica	723	1,192	50	...	...
		Tubercular meningitis (acute hydrocephalus)	1,394	1,714	231	...	...
		Phthisis	10,155	14,090	1,572	32	...
		Other forms of tuberculosis, scrofula, &c.	780	594	59	...	...
		Purpura, hæmorrhagic diathesis ¶	100	114	16	...	...
		Anæmia, chlorosis, leucocythæmia**	?	136*	28	...	...
		Diabetes mellitus ††	146	268	56	...	...
		Other constitutional diseases ...	?	27*	1	1	...
V.	...	Premature birth	2,715	3,860	487	...	1
		Atelectasis ‡‡	?	191*	48	...	...
		Cyanosis	203	275	34	...	...
		Spina bifida	108	105	4	...	...
		Imperforate anus			12	...	...
		Cleft palate, harelip	289	334	3	...	...
		Other congenital defects			27	...	...
		Old age	2,727	5,852	616	29	3

* For five years only.

† A few cases of mumps and other miasmatic diseases probably included under this head prior to 1886.

‡ See also accidents of childbirth (Class VI., Sub-class 9), *post.*

§ Included with purpura (IV.) prior to 1886.

|| Including lupus prior to 1886.

¶ Including scurvy prior to 1886.

** Distributed over other heads prior to 1886, viz., anæmia, with dropsy (VIII.), chlorosis with disorders of menstruation (VI., 8), and leucocythæmia with other diseases of the circulatory system (VI., 3) prior to 1886.

†† Includes diabetes insipidus prior to 1886, and diabetes undefined.

‡‡ Included with debility (VIII.) prior to 1886.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(10 years: 1871 to 1880, and 1881 to 1890; and Year 1893.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years.		Year 1893.		
			1871-80.	1881-90.	Total.	Chinese.	Aborigines.
VI.	1	DISEASES, ETC.— <i>continued.</i>					
		Inflammation of brain or its membranes	2,383	2,265	128	1	...
		Apoplexy	2,750	3,520	369	5	...
		Softening of brain	†	393*	65	1	...
		Hemiplegia, brain paralysis	1,596	2,661	164	1	...
		Paralysis, undefined					
		Insanity (general paralysis of insane)					
		Chorea	20	21	2	...	...
		Epilepsy	588	851	69	...	...
		Convulsions	3,390	3,471	336	...	...
		Laryngismus stridulus	?	15*	2	...	...
		Idiopathic tetanus	2,805	2,802	10	...	...
		Paraplegia, diseases of spinal cord					
		Other diseases of nervous system					
		Otitis, otorrhœa †	?	61*	9	...	...
		Epistaxis and diseases of nose †	?	14*	2	...	...
		Ophthalmia and diseases of eye †	?	5*	5	...	...
		Endocarditis, valvular disease	377	1,405	272	...	...
		Pericarditis					
		Hypertrophy of heart ‡					
		Angina pectoris ‡	?	90*	14	...	...
		Syncope ‡	?	51*	17	...	...
		Aneurism	?	619*	261	11	...
		Senile gangrene §	785	670	83	...	...
		Embolism, thrombosis	?	69*	7	...	...
		Phlebitis	5,642	7,747	26	...	...
		Varicose veins					
		Other diseases of the circulatory system					
		Laryngitis	359	518	26	...	1
		Croup || ... ..	1,897	2,004	62	...	...
		Other diseases of larynx and trachea	?	26*	1	...	...
		Asthma, emphysema	392	635	104	7	...
		Bronchitis	4,588	6,574	743	14	...
		Pneumonia	5,077	7,875	993	11	2
		Congestion of the lungs	1,812	1,955	147	5	...
		Pleurisy	811	1,127	119	1	1
		Others	598	571	26	...	...
		Stomatitis ¶	3	64	7	...	...
		Dentition	1,469	1,273	139	...	...
		Sore throat, quinsy	153	130	9	...	...

* For five years only.

† Included with other diseases of nervous system prior to 1886.

‡ Included with other diseases of the circulatory system prior to 1886.

§ Included with mortification (VIII.) prior to 1886.

|| Including diphtheric croup.

¶ The great majority of cases of stomatitis for years prior to 1886 are included with diseases of stomach.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years : 1871 to 1880, and 1881 to 1890 ; and Year 1893.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.									
			Ten Years.		Year 1893.							
			1871-80.	1881-90.	Total.	Chinese.	Aborigines.					
VI.	5	DISEASES, ETC.—<i>continued.</i>										
		Dyspepsia ...	1,971	3,861	1,008	...	1					
		Hæmatemesis ...										
		Melæna ...										
		Diseases of stomach ...										
		Enteritis ...										
		Ulceration of intestines ...										
		Ileus, obstruction of intestine ...										
		Stricture or strangulation of intestine ...										
		Intussusception of intestine ...										
		Hernia ...										
		Fistula ...										
		Peritonitis ...										
		Ascites ...										
		Gallstones ...						3,623	4,176	165	2	...
		Cirrhosis of liver ...										
		Other diseases of liver ...										
		Other diseases of the digestive system ...	3	80	37	...	...			
		6	Diseases of lymphatic system ...	?	36*	5	1	...				
			Disease of spleen ...	44	39	3	1	...				
			Bronchocele ...	?	15	2	...	...		
			Addison's disease† ...	?	15*	5	...	...		
		7	Nephritis ...	218	536	139	...	...		
			Bright's disease ...	749	1,837	205	3	...				
			Uræmia† ...	?	156*	41	...	...		
			Suppression of urine ...	29	76	8	...	...		
			Calculus ...	48	104	17	...	...		
			Hæmaturia† ...	?	15*	...	...	...	
			Diseases of bladder and prostate ...	203	520	93	...	...		
			Other diseases of the urinary system ...	628	523	23	...	...		
		8	Ovarian disease ...	44	125	18	...	...		
			Diseases of the uterus and vagina ...	170	132	16	...	...		
			Disorders of menstruation ...	52	47	...	...	...	
			Pelvic abscess‡ ...	?	13*	4	...	...		
			Perineal abscess‡ ...	?	8*	1	...	...		
			Diseases of the testes, penis, scrotum, &c. ...	29	14	1	...	...		
		9	Abortion, miscarriage ...	1,267	1,213	46§	...	...		
			Puerperal mania ...									
			Puerperal convulsions ...									
			Placenta prævia, flooding ...									
			Phlegmasia dolens ...									
			Other accidents of childbirth ...									
		10	Caries, necrosis|| ...	...	123*	27	...	...		
			Arthritis, ostitis, periostitis ...	87	132	7	...	...		
			Other diseases of the organs of locomotion ...	203	120	21	1	...				

* For 5 years only. † Included with other diseases of urinary system prior to 1886.
‡ Included with abscess (VIII.) prior to 1886. § Including cases undefined.
|| Included with "Other diseases," in same sub-class prior to 1886.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(10 Years: 1871 to 1880, and 1881 to 1890; and Year 1893.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.					
			Ten Years.		Year 1893.			
			1871-80.	1881-90.	Total.	Chinese.	Aborigines.	
		DISEASES, ETC.— <i>continued.</i>						
VI.	11	Carbuncle	37	53	8	...	...
		Phlegmon, cellulitis	20	61	17	1	1	
		Lupus*	?	11†	1	...	...
		Ulcer, bed sore	86	107	3	...	...
		Eczema			11	...	...
		Pemphigus			3	...	...
		Other diseases of the integumentary system }	185	218	6	...	...
VII.	1	Fractures, contusions	3,152	3,564	332	5	...	
		Wounds	262	274	31	...	...
		Burn, scald	885	941	111	1	...	
		Sunstroke	218	233	9	...	...
		Lightning	25	26	1	...	...
		Poison	178	204	17	...	...
		Bite of snake or insect ‡	37	38	8	...	...
		Drowning	1,937	2,064	204	1	...	
		Suffocation	625	648	82	...	...
		Otherwise	128	282	15	...	...
	2	Murder and Manslaughter	190	290	52	1	...	
	3	Gunshot wounds	69	203	36	...	...
		Cut, stab	185	181	22	1	...	
		Poison	188	183	25	...	...
		Drowning	217	206	15	...	...
		Hanging	256	278	29	5	...	
		Suicide by other means	36	50	7	1	...	
	4	Judicial hanging	19	13	1	...	...
VIII.	...	Dropsy§	613	457	18	3	...	
		Debility, atrophy, inanition|| ... ..	6,987	10,309	931	14	...	
		Mortification	131	92	11	...	...
		Tumour	269	325	9	...	...
		Abscess	38	95	1	...	...
		Hæmorrhage			5	...	...
		Sudden (causes unascertained) }	326	465	7	...	...
		Causes not specified			14	3	...	

Causes of death in order of fatality.

612. The next table shows the same causes of death, arranged in the order of their fatality, during 1893, with the numbers who died from each cause in that year, and during the decennial periods ended

* Included with cancer (IV.) prior to 1886.

† For five years only.

‡ At least five of the deaths in the ten years 1881-90 were cases of insect-bite, but in most of those years such cases were not distinguished; in 1893 all the cases except one were of snake-bite.

§ Including anæmia (IV.) prior to 1886.

|| Including atelectasis (V.) prior to 1886.

with 1890 and 1880; also the order of fatality of the different causes during those periods:—

CAUSES OF DEATH IN ORDER OF FATALITY.
(10 Years: 1871-80, and 1881-90; and Year 1893.)

Order of Fatality.			Causes of Death.	Number of Deaths.		
Ten Years: 1871-80.	Ten Years: 1881-90.	Year 1893.		Ten Years: 1871-80.	Ten Years: 1881-90.	Year 1893.
1	1	1	Phthisis	10,155	14,090	1,572
19	15	2	Enteritis	2,134	2,838	1,008
5	5	3	Pneumonia	5,077	7,875	993
4	2	4	Heart disease, &c., exclusive of aneurism and pericarditis, endocarditis, and valvular disease	5,642	8,576	938
3	4	5	Accidents	7,447	8,274	810
6	6	6	Bronchitis	4,588	6,574	743
12	9	7	Cancer, malignant disease ...	2,957	4,864	734
20	46	8	Measles	2,080	534	659
16	7	9	Old age	2,727	5,852	616
2	3	10	Diarrhœa	7,667	8,304	495
17	12	11	Premature birth	2,715	3,860	487
48	25	12	Endocarditis, pericarditis, valvular disease	377	1,405	404
15	13	13	Apoplexy	2,750	3,520	369
26	17	14	Hemiplegia, paralysis, insanity ...	1,596	2,661	354
10	14	15	Convulsions	3,390	3,471	336
9	10	16	Liver diseases not classed ...	3,623	4,176	264
8	8	17	Typhoid (or enteric) and simple continued fever	3,973	5,585	259
28	24	18	Tubercular meningitis (acute hydrocephalus)	1,394	1,714	231
52	52	19	Influenza	276	398	206
36	23	20	Bright's disease	749	1,837	205
14	16	21	Diseases of spinal cord and other diseases of nervous system	2,805	2,787	186
22	11	22	Dyspepsia, and other diseases of the stomach	1,971	3,861	180
25	22	23	Childbirth, and puerperal fever ...	1,728	1,853	179
24	21	24	Congestion of the lungs ...	1,812	1,955	147
27	27	25	Dentition	1,469	1,273	139
54	45		Nephritis	218	536	139
30	31	26	Suicide	951	1,101	134
35	32	27	Peritonitis	771	1,014	133
18	19	28	Inflammation of brain or its membranes	2,383	2,265	128
41	34		Malformation	600	905	128
11	18	29	Diphtheria	3,040	2,566	120
32	30	30	Pleurisy	811	1,127	119
21	26	31	Whooping-cough	1,974	1,392	117
46	40	32	Asthma, emphysema	392	635	104
13	28	33	Dysentery	2,846	1,237	103
31	38	34	Rheumatic fever and rheumatism	817	799	95
55	48	35	Diseases of bladder and prostate...	203	520	93
44	37	36	Cholera (simple)	523	834	90
33	39	37	Aneurism	785	670	83
29	29	38	Starvation, want of breast milk ...	1,322	1,192	82
45	41	39	Ileus, obstruction of intestine ...	424	621	74

CAUSES OF DEATH IN ORDER OF FATALITY—*continued.*

(10 Years : 1871-80, and 1881-90 ; and Year 1893.)

Order of Fatality.			Causes of Death.	Number of Deaths.		
Ten Years : 1871-80.	Ten Years : 1881-90.	Year 1893.		Ten Years : 1871-80.	Ten Years : 1881-90.	Year 1893.
43	36	40	Epilepsy	588	851	69
47	44	41	Hydatids	379	537	65
...	53		Softening of brain *	?	393†	65
38	33	42	Intemperance	646	950	63
23	20	43	Croup (including diphtheritic croup)	1,897	2,004	62
34	42	44	Forms of tuberculosis, scrofula, &c., not classed	780	594	59
64	58	45	Diabetes mellitus	146	268	56
57	57	46	Murder and manslaughter	190	290	52
37	29	47	Tabes mesenterica	723	1,192	50
62	59	48	Ulceration of intestines	160	231	44
...	63	49	Uræmia	?	156†	41
83	77	50	Diseases of the digestive system not classed	3	80	37
65	62	51	Gout	133	197	32
56	56	52	Hernia	191	304	31
51	55	53	Syphilis	286	332	29
...	65	54	Anæmia, chlorosis, leucocythæmia	?	136†	28
...	69	55	Caries, necrosis	?	123†	27
42	43	56	Diseases of the respiratory system not classed	598	571	26
49	49		Laryngitis	359	518	26
40	51		Erysipelas	619	426	26
53	54		Pyæmia, septicæmia	264	370	26
39	47	57	Diseases of the urinary system not classed	628	523	23
7	50	58	Scarlet fever	4,101	430	21
55	70		Diseases of the organs of locomotion not classed	203	120	21
58	61	59	Eczema	185	218	11
			Pemphigus			
			Integumentary diseases not classed			
73	68	60	Ovarian disease	44	125	18
72	74	61	Calculus	48	104	17
77	80		Phlegmon, cellulitis	20	61	17
60	66	62	Diseases of the uterus and vagina	170	132	16
66	71		Purpura, hæmorrhagic diathesis...	100	114	16
...	77		Diseases of the eye and ear (and nose ?)	?	80†	16
68	75	63	Gonorrhœa, stricture of urethra...	91	93	14
50	60	64	Thrush	327	220	12
67	64		Intussusception of intestine	93	139	12
59	72		Ascites	184	113	12
...	91	65	Idiopathic tetanus	?	15†	10
63	67	66	Sore throat, quinsy	153	130	9
75	78	67	Suppression of urine	29	76	8
74	81		Carbuncle	37	53	8
69	66	68	Arthritis, ostitis, periostitis	87	132	7
83	79		Stomatitis	3	64	7

* Included with diseases of spinal cord and other diseases of nervous system prior to 1886.

† For 5 years only.

CAUSES OF DEATH IN ORDER OF FATALITY—*continued.*
(10 Years : 1871-80, and 1881-90 ; and Year 1893.)

Order of Fatality.			Causes of Death.	Number of Deaths.		
Ten Years : 1871-80.	Ten Years : 1881-90.	Year 1893.		Ten Years : 1871-80.	Ten Years : 1881-90.	Year 1893.
73	76	69	Stricture or strangulation of intestine	44	83	5
...	85		Diseases of the lymphatic system	?	36*	5
...	91	70	Addison's disease	?	15*	5
...	93		Pelvic abscess ...	?	13*	4
...	96	71	Mumps	?	7*	4
70	73		Ulcer, bed sore...	86	107	3
73	84	72	Disease of spleen	44	39	3
80	92		Chicken-pox ...	13	14	3
73	86	73	Ague	44	27	2
77	89		Chorea	20	21	2
...	90	74	Rickets ..	?	16*	2
...	91		Bronchocele	?	15*	2
...	91	75	Laryngismus stridulus	?	15*	2
...	98		Phagedæna	...	5*	2
...	99	76	Beri-beri	?	3*	2
61	83		Remittent fever	169	42	1
...	86	77	Constitutional diseases not classed	...	27*	1
...	87		Diseases of the larynx and trachea not classed	?	26*	1
79	88	78	Fistula	17	22	1
81	91		Dietic diseases not classed	11	15	1
75	92	79	Diseases of testes, penis, scrotum, &c.	29	14	1
78	93		Judicial hanging	19	13	1
...	94	80	Lupus	?	11*	1
...	95		Cow-pox and other effects of vaccination	?	8*	1
...	95	81	Epidemic rose rash	?	8*	1
...	95		Perineal abscess	?	8*	1
...	97	82	Scurvy	?	6*	1
71	82		Disorders of menstruation	52	47	...
...	91	83	Hæmaturia	?	15*	...
76	96		Parasitic diseases not classed	28	7*	...
84	96	84	Small-pox	2	7	...
...	96		Cerebro-spinal fever	?	7*	...
...	100	85	Miasmatic diseases not classed	...	1	...
85	...		Glanders	1	...	...
Deaths from well-defined causes				114,206	139,716	15,512
Deaths from "atrophy and debility" and other ill-defined and unspecified causes				8,364	11,743	996
Deaths from all causes				122,570	151,459	16,508

613. The fatality of the different circumstances which cause death in this colony, as compared with the fatality resulting from similar causes in England and Wales, is shown by the following table, in which

Death rate from various causes in Victoria and England.

* For 5 years only.

the number of persons dying from each cause in either country is compared with the number of persons living in the same country. The total of each class and order is given, as also are some of the principal diseases. The Victorian results relate to the year 1893, the decennial periods ended with 1890 and 1880, and the results for England and Wales to the five years ended with 1890:—

ANNUAL DEATH RATE FROM EACH GROUP OF CAUSES AND CERTAIN DISEASES IN VICTORIA AND ENGLAND AND WALES.

Class.	Sub-Class.	Causes of Death.	Number of Annual Deaths per 100,000 of Mean Population.			
			Victoria.			England and Wales.
			Year 1893.	Average of 10 Years: 1881-90.	Average of 10 Years: 1871 to 1880.	Average of 5 Years: 1886 to 1890.
		All causes	1,410·54	1,512·50	1,538·01	1,889·54
		CLASSES.				
I.	...	Specific febrile or zymotic diseases	193·28	232·38	356·74	250·22
II.	...	Parasitic diseases... ..	6·58	7·63	9·21	2·78
III.	...	Dietic diseases	12·56	21·60	24·83	6·72
IV.	...	Constitutional diseases	245·74	239·78	215·89	326·92
V.	...	Developmental diseases	105·19	106·02	75·82	158·92
VI.	...	Local diseases	676·90	691·18	642·57	986·16
VII.	...	Violent deaths	85·19	96·64	108·00	63·50
VIII.	...	Ill-defined and not specified causes	85·10	117·27	104·95	94·32
		SUB-CLASSES AND DISEASES.				
I.	1	Miasmatic diseases	118·77	109·34	193·98	158·34
		Measles	56·31	5·33	26·10	46·84
		Scarlet fever	1·80	4·29	51·46	24·06
		Influenza	17·60	4·05	...	3·44
		Diphtheria*	10·25	25·62	38·15	16·96
		Whooping-cough	10·00	13·90	24·77	44·36
		Typhoid or enteric fever, &c.	22·13	55·77	49·85	19·58
	2	Diarrhœal diseases	58·79	103·61	138·48	68·10
		Diarrhœa	42·30	82·92	96·21	} 66·70
		Dysentery	8·80	12·35	35·71	
	3	Malarial diseases	·43	·72	2·67	·64
	4	Zoogenous diseases	·09	·08	·01	·28
	5	Venereal diseases	3·67	4·24	4·73	8·36
	6	Septic diseases	11·53	14·36	16·87	14·50
		Puerperal fever (see also Childbirth and Puerperal fever <i>infra</i>)	6·92	6·39	5·78	7·64

* Deaths from diphtheritic croup are not included with those from diphtheria, but under the head of croup, which is classed as a disease of the respiratory system, Class VI., Sub-Class 4.

ANNUAL DEATH RATE FROM EACH GROUP OF CAUSES AND CERTAIN DISEASES IN VICTORIA AND ENGLAND AND WALES—*continued.*

Class.	Sub-Class.	Causes of Death.	Number of Annual Deaths per 100,000 of Mean Population.			
			Victoria.			England and Wales.
			Year 1893.	Average of 10 Years: 1881-90.	Average of 10 Years: 1871 to 1880.	Average of 5 Years: 1886 to 1890.
IV.	...	SUB-CLASSES AND DISEASES. Constitutional diseases— Rheumatism, rheumatic fever, and gout	10·85	9·95	11·92	12·22
		Cancer, malignant disease	62·72	48·57	37·10	63·16
		Phthisis	134·32	140·71	127·42	163·54
		Other tubercular and scrofulous diseases	29·05	34·95	36·35	68·68
V.	...	Developmental diseases— Of children (premature birth or malformation)	52·55	47·58	41·60	61·34
		Of old age	52·64	58·44	34·22	97·58
VI.	...	Diseases of the systems—				
	1	Nervous (brain diseases, &c.)	129·96	159·77	169·80	254·92
	2	Organs of special sense (nose, ear, and eye diseases)	1·37	?	?	2·28
	3	Circulatory (heart diseases, &c.)	121·76	106·36	85·37	168·58
	4	Respiratory (lung diseases, &c.)*	189·78	212·56	194·92	376·54
	5	Digestive (stomach, bowel, liver diseases, &c.)	167·13	149·28	141·04	109·92
	6	Lymphatic, and ductless glands	1·28	1·05	·55	2·28
	7	Urinary (kidney, bladder diseases, &c.)	44·94	37·62	23·53	44·66
	8	Generative (diseases of ovary, uterus, and vagina, &c.)	3·42	3·39	3·70	5·50
	9	Childbirth (see also Childbirth and puerperal fever <i>infra</i>)	8·37	12·11	15·90	6·60
	10	Locomotive (arthritis, osteitis, &c.)	4·70	3·75	3·64	8·62
	11	Integumentary (carbuncle, phlegmon, ulcer, &c.)	4·19	4·49	4·12	6·26
VII.	1	Accident or negligence ...	69·21	82·63	93·45	54·38
	2	Homicide	4·44	2·89	2·38	1·10
	3	Suicide	11·45	10·99	11·93	7·94
	3	Execution	·09	·13	·24	·08
I. VI.	6) 9)	Childbirth and puerperal fever	15·29	18·50	21·68	14·24

NOTE.—See notes to table following paragraph 611 *ante*.

* There is some difficulty in making comparisons in the case of diphtheria, as diphtheritic croup, which is generally classed with croup, may sometimes be classed with diphtheria. See footnote on page 346.

614. By means of the results shown in this table, it is found that, over a series of years, the mortality from the following causes is greater in Victoria than in England and Wales :—Influenza, diphtheria,* typhoid fever, diarrhœal diseases, malarial diseases, dietic diseases (including want of breast milk and alcoholism), parasitic diseases (including thrush, hydatids, &c.) ; diseases of the stomach, bowels, and liver ; violent deaths of all kinds ; and the consequences of childbirth. From every other specified cause shown, also from all causes combined, the death rate is, on the average, higher in England and Wales than in Victoria.

615. It should be explained that under the altered nosological classification, which has now been in force for eight years, the increased number of distinct diseases specified, and the numerous changes made in the grouping of diseases, have rendered it difficult in some instances to compare correctly the number of deaths resulting from many diseases now stated separately, with the deaths which resulted from the same diseases before the change took place, when they were grouped with other complaints in such a way as to be now not distinguishable. Such discrepancies have, as far as possible, been pointed out in the footnotes to a previous table, by means of which it will generally be found possible to institute a fair comparison.

616. Per 100,000 of the population, 193 deaths in 1893 were set down to specific febrile or zymotic diseases. The proportion was much below the average of the decade 1881–90, and very much below the average of the decade 1871–80, during which period, in consequence of the prevalence of epidemics, the rate of mortality from this class of complaints was considerably higher than in England according to the average of the five years 1886 to 1890. Of the 193 deaths per 100,000 persons referred to, 119 were set down to miasmatic, 59 to diarrhœal, 11 to septic, 4 to venereal diseases, and only a small fraction to malarial and zoogenous diseases. Measles, which caused only 1 death in 1892, caused as many as 659 deaths, or 56 per 100,000 persons living, in 1893, the proportion being much higher than that at either of the former periods named or that in England and Wales. Influenza, which caused about 10 deaths per 100,000 persons living in 1892, caused nearly 18 such deaths in 1893 ; typhoid fever caused 22 such deaths, as against 26 in 1892, 31 in 1891, 54 in 1890, and 53 according to the average of twenty years. The rate, however, although so much reduced, was still

* See footnote (*) on previous page.

Diseases
more fatal
in Victoria
than in
England.

New
nosology
prevents
returns
from being
strictly
compar-
able.

Specific
febrile or
zymotic
diseases.

higher than that which prevails in England. Diphtheria in 1893 was not nearly so fatal as in the four preceding years; the mortality therefrom being only about 10 per 100,000, as compared with 21 in 1892, 28 in 1891, 66 in 1890, and 48 in 1889; the average during the ten years 1881-90 was only 26, and that of the previous decade 38. The mortality from diarrhoeal diseases in 1893 (59 per 100,000) was less than that in 1892, 1891, or 1890, not much more than half that in the decade 1881-90, and considerably less than half that in the decade 1871-80. The mortality from most of the other zymotic diseases was considerably below the average.

617. The following is a statement of the number of deaths from zymotic diseases under the old classification, which now corresponds as nearly as possible with the zymotic, parasitic, and dietic classes of diseases together, and of the proportion of such deaths to the total mortality and to the population over a series of years in all the Australasian Colonies. The colonies are placed in order according to the death rate from diseases of this class prevailing in each :—

Zymotic diseases, &c., in Australasian Colonies.

ORDER OF COLONIES IN REFERENCE TO MORTALITY FROM ZYMOTIC, PARASITIC, AND DIETIC DISEASES, 1878-87.

Colony.	Deaths from Zymotic, Parasitic, and Dietic Diseases, 1878-87.		
	Total Number.	Percentage of Total Deaths.	Annual Proportion per 10,000 Persons Living.
1. Queensland ...	13,190	28·11	49·5
2. Western Australia ...	1,099	20·34	34·2
3. South Australia ...	8,425	20·53	29·3
4. New South Wales ...	22,909	18·13	27·7
5. Victoria ...	23,776	17·71	26·2
6. Tasmania ...	2,793	14·59	22·7
7. New Zealand ...	11,544	20·25	22·3

618. It will be observed that in Victoria, during the 10 years 1878 to 1887, the mortality from zymotic, parasitic, and dietic diseases was less in proportion to the mortality from all causes than it was in any of the other Australasian Colonies except Tasmania, and less in proportion to population than in any of them except Tasmania and New Zealand.

Results compared in different colonies.

Queensland was much above the other colonies in these respects, and was the only one of the colonies in which the death rate from this class of complaints was higher than that in England. In New South Wales, on the other hand, the proportion was only slightly higher than in Victoria.

Small-pox
in various
countries.

619. Small-pox has never prevailed as an epidemic amongst the people of Victoria. On several occasions persons sickening from or affected by that complaint have arrived in vessels, and before the nature of the malady was discovered it has been caught by others; but in every case the patients have been promptly isolated by order of the Government, and the disease has soon disappeared. No death from small-pox has occurred in the last five years, and since the registration system was first introduced, in 1853, only 26 deaths from it have been recorded, five of which occurred in 1884. Material for giving some statistics of deaths from small-pox in other countries is at hand in the valuable paper contributed by Dr. E. Raseri to the International Statistical Institute at its session held at Rome in the month of April, 1886. The following are the figures referred to, which relate generally to the mean of the four years 1881 to 1884:—

ANNUAL DEATH RATE FROM SMALL-POX IN VARIOUS COUNTRIES*

Deaths from Small-pox Annually per 10,000 Persons Living.		Deaths from Small-pox Annually per 10,000 Persons Living.	
Spain (principal towns) ...	13·07	Holland ...	·57
Spain ...	8·46	Sweden ...	·41
Austria (principal towns)...	8·43	Switzerland ...	·33
Austria ...	7·05	Prussia ...	·29
Belgium ...	4·09	Germany (principal towns)	·23
Belgium (principal towns)	3·15	Ireland ...	·20
Russia ...	2·96	Massachusetts ...	·18
Italy ...	1·63	Denmark (towns) ...	·08
Switzerland (principal towns)	·80	Scotland (eight towns) ...	·05
Sweden (principal towns)...	·69	Scotland ...	·03
England and Wales ...	·67		

Vaccina-
tions.

620. Although cases of small-pox have rarely occurred in Victoria, parents are required by law to cause their children to be vaccinated.† In 1893 the number of cases of successful vaccination performed in

* For an account of the mortality from small-pox amongst the Australian aborigines, see *Victorian Year-Book*, 1888-9, Vol. II., paragraph 228.

† An interesting report on the efficacy of vaccination was published in the *Victorian Year-Book*, 1890-91, Vol. I., paragraph 615.

Victoria was 25,697 ; and, as the number of births was 36,552, it appears that 70 per cent. of the children born were vaccinated. Part of the remainder are accounted for by death—2,902, or 8 per cent., of those born having died before they were six months old. The average proportions of vaccinations to infants born is 75 per cent., as is seen by reference to the following figures, which indicate the proportions during each of the eighteen years ended with 1893 :—

PROPORTION OF VACCINATIONS TO BIRTHS, 1876 TO 1893.

		Vaccinations per 100 Births.			Vaccinations per 100 Births.
1876	...	80	1887	...	78
1877	...	87	1888	...	67
1878	...	82	1889	...	70
1879	...	82	1890	...	68
1880	...	73	1891	...	66
1881	...	100*	1892	...	71
1882	...	75	1893	...	70
1883	...	67			
1884	...	74	Mean of 18 years		75
1885	...	69			
1886	...	70			

621. Dr. Raseri† gives the following as the proportions of successful vaccinations to births in different countries, generally during the years 1880 to 1884. To these have been added the proportions in such of the Australasian Colonies as the information is available for :—

PROPORTION OF VACCINATIONS TO BIRTHS IN VARIOUS COUNTRIES.

		Vaccinations per 100 Births.			Vaccinations per 100 Births.
Ireland	...	89	Poland (1887)	...	77
Scotland	...	88	Italy	...	73
Norway	...	87	Germany	...	71
England and Wales...	...	86	South Australia (1878 to 1887)	...	69
Hungary	...	86	New Zealand (1886 to 1887)	...	68
Holland	...	82	France	...	64
Sweden	...	80	Russia in Europe (1887)	...	59
Austria	...	78	Tasmania (1878 to 1887)	...	55
Victoria (1878 to 1887)	...	77	New South Wales(1878 to 1887)	...	25

622. It appears by the figures that the proportion of infants vaccinated is larger in Ireland than in any other country, and next so in Scotland ; and that whilst in Victoria more than three-fourths of the

* In this year, owing to an alarm occasioned by an outbreak of small-pox, first in Sydney and subsequently on board vessels arriving at Melbourne, the vaccinations exceeded the births by 100.

† *Bulletin, &c.*, page 189.

children born during the period named were vaccinated, in South Australia and New Zealand little more than two-thirds, in Tasmania little more than half, and in New South Wales only one-fourth of the infants were vaccinated.

Cost of vaccination.

623. The number of public vaccinators in Victoria is 205, and the amount paid in 1893 for vaccinations, including fees to deputy registrars and travelling allowances of vaccinators, was £5,022 5s. 6d.

Zymotic diseases affecting children.

624. The five zymotic diseases which chiefly affect children are measles, scarlet fever, diphtheria, whooping-cough, and diarrhoea, to which may be added croup, which is classed as a complaint of the respiratory system. The following table shows the number of deaths from such diseases which occurred during the years 1891, 1892, and 1893; the annual means of the seven years 1864–70, and of the decades 1871–80 and 1881–90, being also given :—

DEATHS FROM ZYMOTIC DISEASES CHIEFLY AFFECTING CHILDREN
1864 TO 1893.*

Year or Period.	Annual Number of Deaths from—						
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping-cough.	Diarrhoea.	Total.
1864–70 ...	161	326	410	148	185	801	2,031
1871–80 ...	208	410	304	190	197	767	2,076
1881–90 ...	54	43	257	200	139	830	1,523
1891 ...	4	25	326	170	168	655	1,348
1892 ...	1	26	246	117	179	549	1,118
1893 ...	659	21	120	62	117	495	1,474

NOTE.—Croup is included in this table, although not now classed as a zymotic disease, since a large number of deaths are set down to diphtheria and croup conjointly.

Children's zymotic diseases, 1893.

625. As compared with the previous year, a decrease took place in 1893 in the mortality from scarlet fever, diphtheria, croup, whooping-cough, and diarrhoea, but a large increase in that from measles. Taken as a whole, these diseases in 1893 caused 356 more deaths than in 1892, or a larger number than in the two previous years.

Measles.

626. An epidemic of measles occurred in 1893 which caused 659 deaths. Prior to this the latest visitation of measles in an epidemic

* For the numbers in each year, see *Victorian Year-Book*, 1890-91, Vol. I., paragraph 616.

form had been in 1884 and 1885, which resulted in 302 deaths, or 357 less than the number in 1893. Epidemics of this complaint also occurred in 1880-81, 1874-5, and 1866-7, when the resulting deaths numbered 314, 1,797, and 1,057 respectively. Between the epidemic periods the deaths from measles are but few, only 153, or an average of 22 per annum having been reported in the seven years ended with 1892. Per 10,000 of the population, the proportion of deaths from measles was .82 in the ten years ended with 1887, that proportion being lower than in any of the following European countries, but very slightly higher than that in the other Australasian Colonies, except South Australia, as is shown by the following figures :—

ANNUAL DEATH RATE FROM MEASLES IN VARIOUS COUNTRIES,
1881 TO 1884.

	Deaths from Measles per 10,000 Persons Living.	Deaths from Measles per 10,000 Persons Living.
Spain (principal towns) ...	11.44	Switzerland (principal towns) 2.46
Spain	8.84	Sweden
Italy	7.04	Austria (principal towns) ...
Scotland (eight towns) ...	5.34	Ireland
Belgium	5.24	Massachusetts
Austria	4.60	Russia in Europe
England and Wales ...	4.01	South Australia (1878 to 1887) 1.00
Denmark (towns) ...	3.66	Switzerland
Scotland	3.58	Victoria (1878 to 1887) .82
Prussia	3.51	New Zealand
Sweden (principal towns) ...	3.27	New South Wales
Germany (principal towns)...	3.15	Tasmania
Holland	2.88	Queensland
Belgium (principal towns) ...	2.80	

NOTE.—A useful circular issued under the direction of the Central Board of Health, describing the symptoms of measles, the precautions necessary to be taken to prevent its spread, and mode of treatment in the absence of medical aid, was published in the *Victorian Year-Book*, 1887-8, Vol. I., paragraph 661.

627. On the occasion of the earlier visitations of measles in 1866-7 and 1874-5, the epidemic was accompanied or followed by one of scarlet fever, which proved to be even more fatal than the former complaint ; but no such calamity has attended the last three outbreaks of measles, during the whole period of which, especially the last outbreak, the mortality from scarlet fever was exceedingly low. The fatality attending this complaint has very much diminished of late years, the deaths from it—notwithstanding the increased population—having numbered only 430 in the ten years 1881-90, or an average of 43 per

annum ; as against 5,101, or an average of 510 per annum, in the preceding ten years ; and 2,284, or an average of 326 per annum, in the seven years ended with 1870. In 1893, scarlet fever caused 21 deaths, or .18 per 10,000 of the population, as against .43 in the ten years ended with 1890, and 5.15 in the ten years ended with 1880. Whilst the death rate from this complaint in the ten years 1881-90 was lower than the average prevailing in any of the following countries except Queensland, that in the decade preceding those years was higher than in most of the countries named :—

ANNUAL DEATH RATE FROM SCARLET FEVER IN VARIOUS COUNTRIES,
1881 TO 1884.*

	Deaths from Scarlet Fever per 10,000 Persons Living.	Deaths from Scarlet Fever per 10,000 Persons Living.	
Sweden (principal towns) ...	6.10	Spain ...	2.00
Austria ...	5.86	Russia in Europe ...	1.79
Prussia ...	5.30	Belgium (principal towns) ...	1.58
England and Wales...	5.29	Switzerland (principal towns)	1.49
Germany (principal towns) ...	5.09	Spain (principal towns) ...	1.46
Sweden ...	4.85	South Australia (1878 to 1887)	1.27
Scotland (8 towns) ...	4.77	Holland ...	1.15
Austria (principal towns) ...	4.45	Switzerland ...	1.01
Scotland ...	4.44	New South Wales (1878 to 1887)	.89
Ireland ...	3.00	New Zealand	.75
Italy ...	2.94	Victoria ...	.58
Belgium ...	2.90	Tasmania...	.49
Denmark (towns) ...	2.64	Queensland	.13
Massachusetts ...	2.54		

NOTE.—A useful circular on scarlet fever, issued by the Central Board of Health, was published in the *Victorian Year-Book*, 1888-9, Vol. II., paragraph 238.

Diphtheria
and croup.

628. In consequence of the similarity of the complaints, and the number of deaths set down to a combination of both, it is misleading to consider the deaths caused by diphtheria apart from those caused by croup. Taking the two affections together, they were to every 10,000 of the population in the proportion of only 1.56 in 1893 as against 3.12 in 1892, 4.32 in 1891, 9.11 in 1890, 7.32 in 1889, 4.54 in the ten years ended with 1890, and 6.19 in the ten years ended with 1880. The proportion, over a series of recent years, is lower than that for any of the foreign countries of which information is at hand, except Ireland,

* These proportions, except those for the Australasian Colonies, have been taken and re-arranged from Dr. Raseri's paper already alluded to, page 193.

England, Holland, and Belgium, as will be seen by the following figures:—

ANNUAL DEATH RATE FROM DIPHTHERIA AND CROUP IN VARIOUS COUNTRIES, 1881 TO 1884.*

	Deaths from Diphtheria and Croup per 10,000 Persons Living.	Deaths from Diphtheria and Croup per 10,000 Persons Living.	
Austria	16.63	Sweden (principal towns) ...	9.74
Prussia	15.45	Italy	9.18
Spain (principal towns) ...	11.83	Switzerland (principal towns)	8.49
Germany (principal towns) ...	11.54	Belgium	7.72
Massachusetts	11.13	Spain	6.85
Austria (principal towns) ...	10.36	Denmark (towns)... ..	6.28
Sweden	9.79	Switzerland	6.09
South Australia (1878 to 1887)	5.93	Victoria (1878 to 1887) ...	4.17
Scotland (8 towns)	4.99	Belgium (principal towns)...	3.79
New South Wales (1878 to 1887)	4.77	Holland	3.76
Queensland	4.75	England and Wales	3.05
Russia in Europe	4.67	Ireland	2.70
Scotland	4.55	New Zealand (1878 to 1887)	2.42
Tasmania (1878 to 1887) ...	4.46		

NOTE.—A circular giving the symptoms of diphtheria and directions for its management in the absence of medical assistance, was issued by the Central Board of Health during the early part of 1888, and was republished in the *Victorian Year-Book*, 1887-8, Vol. I., paragraph 664.

629. Deaths from whooping-cough in 1893 were in the proportion of 1.00, in 1892 of 1.54, in 1891 of 1.46, in the ten years ended with 1890 of 1.39, and in the ten years ended with 1880 of 2.48 per 10,000 persons living. All these proportions, as well as those in the other Australasian Colonies, are lower than those generally prevailing in most of the foreign countries named in the following table:—

ANNUAL DEATH RATE FROM WHOOPING-COUGH IN VARIOUS COUNTRIES, 1881 TO 1884.*

	Deaths from Whooping-cough per 10,000 Persons Living.	Deaths from Whooping-cough per 10,000 Persons Living.	
Austria	10.63	Austria (principal towns) ...	2.74
Scotland (8 towns)	9.64	Spain (principal towns) ...	2.68
Belgium	7.18	Italy	2.45
Denmark	6.62	New Zealand (1878 to 1887)	2.42
Scotland	6.23	Switzerland	2.31
Prussia	5.40	South Australia (1878 to 1887)	2.19
England and Wales	4.67	New South Wales	1.93
Holland	3.82	Sweden	1.80
Germany (principal towns) ...	3.48	Victoria (1878 to 1887) ...	1.79
Belgium (principal towns) ...	3.37	Queensland	1.51
Ireland	3.18	Tasmania	1.44
Spain	3.14	Massachusetts	1.16
Sweden (principal towns) ...	2.98	Russia in Europe ... ..	.23
Switzerland (principal towns)...	2.74		

NOTE.—A circular on whooping-cough and its treatment, issued by the Central Board of Health, was republished in the *Victorian Year-Book*, 1887-8, Vol. I., paragraph 666.

630. Typhoid fever caused 259 deaths in 1893, as against 301 in the previous year. The rate of mortality from this complaint in 1893

* Except those for the Australasian Colonies, the figures have been taken and re-arranged from Dr. Raseri's paper, page 193.

was only 2·21 per 10,000 persons living, which is the lowest recorded during a period of 28 years; although four years previously (in 1889) it was as high as 8·35. During the last 28 years the death rate from typhoid fever has fluctuated considerably, but, nevertheless, there were four pretty well-marked maximum periods, viz., 1866-7, 1877-8, 1883, and 1889, when the rates rose to over 6½ per 10,000 persons living. The minimum periods are not so well marked; but the principal ones appear to be 1871-3, 1880-81, and 1891-3, when the average rate was below 4 per 10,000; and 1885, when it was a little above that proportion. Typhoid fever caused in 1893 1·57 per cent. of the total deaths from all causes, and about 9¼ per cent. of those occurring at between 10 and 25 years of age. The following table shows the number of deaths from typhoid fever, and their proportion to the population, during each of the past 28 years:—

DEATHS FROM TYPHOID FEVER, 1866 TO 1893.*

Year.	Deaths from Typhoid Fever.		Year.	Deaths from Typhoid Fever.	
	Total Number.	Number per 10,000 Persons Living.		Total Number.	Number per 10,000 Persons Living.
1866	528	8·39	1881	351	4·04
1867	455	7·06	1882	472	5·30
1868	295	4·45	1883	661	7·26
1869	360	5·24	1884	456	4·89
1870	416	5·83	1885	424	4·43
1871	269	3·65	1886	530	5·38
1872	323	4·29	1887	631	6·21
1873	282	3·68	1888	541	5·13
1874	470	6·04	1889	910	8·35
1875	455	5·78	1890	611	5·46
1876	375	4·71	1891	356	3·10
1877	532	6·58	1892	301	2·59
1878	532	6·48	1893	259	2·21
1879	438	5·25			
1880	297	3·49	Mean ...	447	5·19

NOTE.—A useful circular issued under the direction of the Central Board of Health, describing the symptoms of typhoid fever, the precautions necessary to be taken to prevent its spread, and mode of treatment in the absence of medical aid, was published in the *Victorian Year-Book*, 1888-9, Vol. II., paragraph 242.

Typhoid fever in Australasian Colonies.

631. According to the average of the ten years ended with 1890, the death rate from typhoid fever ranged from 2·5 per 10,000 persons living in New Zealand to 5·7 in Victoria and 9·6 in Queensland. The following table shows the mortality from that complaint in the Australasian Colonies during the periods 1873-80 and 1881-90, also for each of the six years ended with 1892, except in the case of Western

* In the new classification, simple continued fever is entered as a separate complaint from typhoid fever, but as no such distinction was observed in former years, cases occurring in 1886 and subsequent years, which might possibly have been placed under the former head, have, for the sake of comparison, been still placed under the latter.

Australia, for which the information is given for the last six years only:—

DEATHS FROM TYPHOID FEVER* IN AUSTRALASIAN COLONIES,
1873 TO 1892.

Period.	Deaths from Typhoid Fever Annually.							
	Number	Proportion per 10,000 Persons Living.	Number	Proportion per 10,000 Persons Living.	Number	Proportion per 10,000 Persons Living.	Number	Proportion per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.		SOUTH AUSTRALIA.	
1873 to 1880	423	5.25	337†	4.12†	108	5.79	88	3.89
1881 to 1890	559	5.69	448	4.77	301	9.61	128	4.18
1887 ...	631	6.21	434	4.32	245	7.07	153	4.92
1888 ...	541	5.13	441	4.26	228	6.31	120	3.84
1889 ...	910	8.35	571	5.35	385	10.28	137	4.37
1890 ...	611	5.46	311	2.82	131	3.40	99	3.13
1891 ...	356	3.10	269	2.35	126	3.11	80	2.52
1892 ...	301	2.59	332	2.81	127	3.05	88	2.70
			WESTERN AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 to 1880	...	...	...	...	38	3.53	184	4.74
1881 to 1890	...	...	...	...	62	4.76	140	2.48
1887 ...	...	...	13	3.12	112	8.37	168	2.82
1888 ...	...	...	7	1.65	84	6.12	139	2.30
1889 ...	...	...	5	1.16	113	8.06	121	1.98
1890 ...	...	...	2	.42	49	3.41	149	2.40
1891 ...	...	...	12	2.34	83	5.57	124	1.97
1892 ...	...	...	55	9.83	46	3.01	141	2.20

632. In 1892 the death rate from typhoid fever was below the average in all the colonies except Western Australia, in which it was very much above it; in the previous year, moreover, the rate was below the average in all the colonies except Tasmania. In Queensland in 1892 the rate per 10,000 persons living was only 3.05, as compared with an average extending over the ten years ended with 1890 of 9.61.

Deaths from typhoid fever in the colonies, 1892 and previous years compared.

633. In England and Wales the mortality from typhoid or enteric fever‡ has been considerably reduced of late years, and it is now lower than in any of the Australasian Colonies, although only slightly lower than in New Zealand. During the ten years ended with 1880 the mean death rate therefrom was 4.30, but in the ten years ended with 1890 only

Typhoid fever in England and Wales.

* Including simple continued and ill-defined fever. It is possible that in some of the colonies a few cases of remittent fever may be returned under one or other of these heads. For mortality in each year since 1872, see *Victorian Year-Book*, 1890-91, Vol. I, paragraph 623.

† Years 1875 to 1880.

‡ The English figures quoted are those of enteric, or typhoid, and simple continued fever, which probably correspond with the fevers tabulated as typhoid in Victoria.

2·23 per 10,000 persons living, the latter being but slightly higher than even the minimum rate (2·21) recorded in Victoria during the last 28 years.*

Typhoid and typhus in various countries.

634. In the returns of most European countries deaths from typhoid fever are not distinguished from those caused by typhus, the latter being a complaint which it is said does not exist in the Australasian Colonies. In England and Wales these fevers have been returned separately since 1869, and it is probable the following figures, so far as they relate to that country, apply to typhoid only, whilst those for most of the other countries, it is believed, refer to the two descriptions of fever combined :—

ANNUAL DEATH RATE FROM TYPHOID AND TYPHUS IN VARIOUS COUNTRIES, 1881 TO 1884.†

	Per 10,000 Persons Living.	Per 10,000 Persons Living.	
Italy	9·37	Sweden (principal towns) ...	3·95
Spain (towns)	8·35	Denmark (towns) ...	3·85
Austria	7·31	Scotland	3·77
Belgium	6·17	Scotland (8 towns) ...	3·62
Spain	5·63	Ireland	3·57
Massachusetts	5·30	Germany (principal towns)	3·56
Prussia	5·14	Sweden	2·87
Belgium (principal towns) ...	4·69	England and Wales ...	2·70
Austria (15 towns) ...	4·49	Switzerland	2·30
Switzerland (17 towns) ...	4·31	Russia in Europe ...	2·07
Holland	4·24		

Influenza.

635. Influenza has prevailed in Victoria, as well as in most other countries, during the last four years. In this colony, whilst it proved fatal to persons of all ages, it pressed most hardly upon the old and the very young. The following is a statement of the deaths at various ages set down to this complaint in the four years ended with 1893:—

DEATHS AT EACH AGE FROM INFLUENZA IN VICTORIA,
1890 TO 1893.

Ages.	1890.	1891.	1892.	1893.	Total in Four Years.	
					Number.	Percentage.
Under 5 Years ...	36	160	17	30	243	16·03
5 to 15 „ ...	12	27	7	11	57	3·76
15 to 25 „ ...	15	48	11	18	92	6·07
25 to 35 „ ...	23	81	13	20	137	9·04
35 to 45 „ ...	11	89	10	14	124	8·18
45 to 55 „ ...	19	105	8	21	153	10·09
55 to 65 „ ...	30	205	26	33	294	19·39
65 to 75 „ ...	12	196	11	37	256	16·89
75 and upwards ...	6	124	8	22	160	10·55
Total ...	164	1,035	111	206	1,516	100·00

* See paragraph 630 *ante*.

† See Dr. Raseri's paper, page 193. The fevers referred to are there termed "Febbre tifoide e tifo exantematico."

636. It may be remarked that, besides the deaths set down to influenza, many deaths were registered as from bronchitis, pneumonia, and other diseases of the respiratory system which originated in attacks of influenza, and were complications of that complaint. Complaint supervening on influenza.

637. Deaths from venereal diseases averaged annually 38 in the ten years ended with 1880, and 43 in the ten years ended with 1890, and numbered 43 in 1893, being in the ratio per 10,000 of the population of .47 during the first period, of .42 during the second period, and of .37 in the last year. If deaths from syphilis be considered apart from those caused by other venereal diseases, the annual numbers at the same periods would be 29, 33, and 29, and the proportions .36, .33, and .25, which contrast favorably with those in six of the ten following countries. It should be mentioned that in a considerable proportion of cases occurring in Victoria the disease was congenital:— Venereal diseases.

ANNUAL DEATH RATE FROM SYPHILIS IN VARIOUS COUNTRIES,
1881 TO 1884.*

	Per 10,000 Persons Living.	Per 10,000 Persons Living.
Italy ...	1.65	Scotland ...
Sweden (towns) ...	1.16	Massachusetts ...
Scotland (eight towns)	1.01	Switzerland ...
Denmark (towns) ...	.94	Ireland ...
England and Wales ...	.84	Holland ...
		.63
		.32
		.24
		.16
		.11

638. Venereal disease has long prevailed amongst the Australian Aborigines, and was no doubt first communicated to them by Europeans. The late Mr. Curr † gave it as his opinion that “it was first introduced into Australia by the whites many years ago, and has never since ceased to commit terrible ravages among our tribes. Probably this disease alone would suffice to exterminate them.” Venereal disease amongst the Aborigines.

639. In 1893, parasitic diseases, chief amongst which are thrush and hydatids, caused $6\frac{1}{2}$ deaths per 100,000 of the population, which was 1 below the average of the ten years ended with 1890, Parasitic diseases.

* See Dr. Raseri's paper, page 193.

† *The Australian Race*, Vol. I., page 227.

and about $2\frac{1}{2}$ below the average of the ten years 1871 to 1880. These diseases are more prevalent in Victoria than in England.

Hydatids.

640. Hydatid disease, which is said to be communicated to man by reason of the ova of the tape-worm in dogs (*Tænia Echinococcus*) being taken into the stomach, generally in water, and to prove fatal to 25 per cent. of the human victims it attacks, during the 21 years ended with 1893 has caused 1,058 deaths, or an average of 50 per annum. Per 100,000 of the population, deaths from this disease ranged from 3·79 in 1873 to 7·19 in 1879, the average for the first eight years being 5·18, for the ten succeeding years 5·50, and for the whole period 5·36. The following are the figures for the last 21 years:—

DEATHS FROM HYDATIDS, 1873 TO 1893.

Year.	Deaths from Hydatid Disease.		Year.	Deaths from Hydatid Disease.	
	Total Number.	Number per 100,000 Living.		Total Number.	Number per 100,000 Living.
1873	29	3·79	1885	47	4·92
1874	41	5·27	1886	51	5·18
1875	47	5·97	1887	51	5·02
1876	36	4·52	1888	53	5·03
1877	37	4·57	1889	61	5·61
1878	37	4·50	1890	53	4·75
1879	60	7·19	1891	58	5·06
1880	48	5·64	1892	63	5·42
1881	48	5·50	1893	65	5·55
1882	58	6·52			
1883	56	6·16	Mean	50	5·36
1884	59	6·33			

Hydatids in Australasian Colonies.

641. According to the returns of the eleven years ended with 1892, as embodied in the following table, hydatids in a fatal form appear to be much more common in Victoria than in any of the other Australasian Colonies. It should be mentioned, however, that medical men sometimes enter the cause of death simply as “disease of the liver, lungs, kidney, &c.” In such cases inquiry should be made as to whether the “disease” referred to was hydatid disease or not, which may possibly not be done so rigidly in the other colonies as it is in

Victoria, and for this reason the mortality from the complaint may appear to be relatively higher here than it really is :—

DEATHS FROM HYDATIDS IN AUSTRALASIAN COLONIES, 1882 TO 1892.

Year.	Number of Deaths from Hydatids.					
	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1882 ...	58	6·52	12	1·50	3	1·26
1883 ...	56	6·16	10	1·19	4	1·50
1884 ...	59	6·33	20	2·26	8	2·71
1885 ...	47	4·92	28	3·02	3	·97
1886 ...	51	5·18	23	2·37	Nil	...
1887 ...	51	5·02	27	2·69	1	·29
1888 ...	53	5·03	22	2·12	Nil	...
1889 ...	61	5·61	24	2·25	3	·80
1890 ...	53	4·75	35	3·18	2	·52
1891 ...	58	5·06	33	2·89	3	·74
1892 ...	63	5·42	33	2·79	Nil	...
Means ...	55·5	5·45	24·3	2·39	2·5	·80

Year.	Number of Deaths from Hydatids.					
	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1882 ...	12	4·14	4	3·35	7	1·37
1883 ...	6	2·01	4	3·35	1	·19
1884 ...	13	4·21	6	4·79	3	·55
1885 ...	5	1·60	2	1·56	3	·53
1886 ...	18	5·78	2	1·53	4	·68
1887 ...	9	2·89	3	2·24	3	·50
1888 ...	13	4·16	2	1·46	5	·83
1889 ...	11	3·51	5	3·56	2	·33
1890 ...	8	2·53	Nil	...	3	·48
1891 ...	12	3·78	3	2·01	3	·48
1892 ...	12	3·68	8	5·23	13	2·02
Means ...	10·8	3·48	3·5	2·64	4·3	·72

NOTE.—In Western Australia only 1 death in 1888, but not one in the other years, was set down to this disease.

642. Hydatid disease is much more fatal in all the Australasian Colonies than it is in England and Wales, where there were only 46 deaths from it in 1891, or a proportion of ·16 per 100,000 persons living, as compared with a mean of ·20 in the five years 1881 to 1885.*

Hydatids in England.

* For further information respecting hydatid disease, see *Victorian Year-Book*, 1888-9, Vol. II., paragraphs 253 and 254.

Dietic diseases. 643. Dietic diseases, consisting principally of want of breast milk and alcoholism, caused in 1893 between 12 and 13 deaths per 100,000 persons living, the proportion being nearly $1\frac{2}{3}$ less than in 1892, and 9 below the average of the ten years ended with 1890. Over a series of years these diseases have been over three times as fatal in Victoria as in England.

Intemperance. 644. In 1893, 63 deaths were set down to intemperance—of which 8 ended with delirium tremens—as against 71 in 1892, 90 in 1891, and an average of 95 during the ten years 1881–90, and of 65 in the ten years preceding that period. These figures furnish annual proportions per million persons living of 54 for 1893, 61 for 1892, 77 for 1891, 95 for the decennium 1881 to 1890, and 81 for the decennium 1871 to 1880, and would appear to indicate that the mortality from this cause was decreasing. As a matter of fact, however, returns of the mortality from intemperance are of doubtful value, as comparatively few deaths are set down to alcoholism pure and simple, although a large number of complaints are no doubt brought on or aggravated, and many lives are doubtless shortened, from that cause, which, however, is not mentioned in the returns. By the following figures, taken from Dr. Raseri's paper*—which must only be accepted for what they may be worth—the mortality from alcoholism would appear to be as high in Victoria as that prevailing in most of the countries and towns named:—

ANNUAL DEATH RATE FROM ALCOHOLISM IN VARIOUS TOWNS AND COUNTRIES.

	Deaths from Alcoholism per 1,000,000 Persons Living.		Deaths from Alcoholism per 1,000,000 Persons Living.
Denmark (towns) ...	274	Massachusetts ...	65
Sweden (principal towns) ...	99	Scotland ...	61
Paris ...	95	Italy ...	47
Switzerland ...	88	England and Wales ...	46
Scotland (8 towns) ...	83	Berlin ...	40
Connecticut ...	80	Vienna ...	36
Belgium ...	76	Sweden ...	34
London ...	74	Ireland ...	30
Russia in Europe ...	70	Holland ...	21

Constitutional diseases. 645. Of complaints classed under the head of "Constitutional Diseases," the most prominent are phthisis and other tubercular diseases, and cancer; also rheumatism, gout, and diabetes mellitus. Under this class there were, in 1893, 246 deaths per 100,000 of the population, or 1 more than in 1892, 6 above the average of the decade 1881–90, and 30 above the average of the decade 1871–80. Of the 246 deaths per 100,000 referred to, 134 resulted from phthisis, or pulmonary

consumption; 63 were set down to cancer; 29 to tabes mesenterica, acute hydrocephalus, and other tubercular or scrofulous diseases; and 20 to other constitutional diseases.

646. Phthisis, or pulmonary consumption, caused 1,572 deaths in Phthisis. 1893, or 9 less than in the previous year. Except during the prevalence of epidemics, phthisis is the occasion of more deaths in Victoria than any other disease;* next to phthisis, diarrhœa† is usually the most fatal disease on the list (although in 1892 eight and in 1893 nine causes of death stood before it), but this complaint causes barely two-thirds (but only one-third in 1892 and 1893) of the number of deaths set down to phthisis. It should, moreover, be borne in mind, as showing the baneful effects of phthisis as compared with those of the other diseases named, that the deaths ascribed to diarrhœa are for the most part those of infants and young children, whilst the majority of the victims of phthisis are at the adult period of life. The following table shows the number of deaths from phthisis, and their proportion to the total population, in 1860 and each subsequent fifth year, also in 1891, 1892, and 1893 :—

DEATHS FROM PHTHISIS IN VICTORIA, 1860 TO 1893.

Year.	Deaths from Phthisis.		Year.	Deaths from Phthisis.	
	Total Number.	Number per 10,000 Persons Living.‡		Total Number.	Number per 10,000 Persons Living.‡
1860 ...	772	14·46	1890 ...	1,631	14·58
1865 ...	741	12·12	1891 ...	1,483	12·93
1870 ...	888	12·45	1892 ...	1,581	13·60
1875 ...	1,027	13·04	1893 ...	1,572	13·43
1880 ...	1,175	13·82			
1885 ...	1,384	14·46	Total in 34 years	36,587	13·42

NOTE.—Deaths registered as occurring from hæmoptysis are included in this table.

647. During the whole period of thirty-four years the deaths from this complaint were in the proportion of 13·42 to every 10,000 persons living; during the first ten of those years that proportion was about 12·68, in the second ten it was 12·64, in the third ten it was 14·25, and in the last four it was 13·63. In regard to the increased rate since 1870, it will be borne in mind that the proportions living at the ages at which phthisis is most fatal, viz., between 15 and 45, have also increased.§ It will be observed that the death rate from phthisis in

* See table following paragraph 612 *ante*.

† During recent years heart diseases (undefined) have sometimes caused more deaths than diarrhœa.

‡ For figures of mean population used in making these calculations, see table "Breadstuffs Available for Consumption" in Part "Production" *post*.

§ In 1871, the proportion of persons living between the ages referred to was 45 per cent., and in 1891 48½ per cent., of the whole population.

1893 (13·43 per 10,000) was lower than in the previous year, or than that in 1890, 1885, 1880, or 1860.

648. Phthisis in Victoria generally affects males more heavily than females. In 1893, 969 of the former, and 603 of the latter, died of that complaint; the males being in the proportion of 15·95, but the females of only 10·71, per 10,000 of their respective sexes living.

649. The following table gives the number of deaths from phthisis at each age in 1893; also the proportion which such deaths bore to the total deaths from all causes in 1893 and in the decennial period 1881-90:—

DEATHS FROM PHTHISIS, 1893 AND 1881-90.—AGES AT DEATH.

Ages.	Number who died from Phthisis, 1893.			Percentage of Deaths from Phthisis to those from all Causes.	
	Males.	Females.	Total.	1893.	Ten Years: 1881-90.
Under 5 years ...	20	11	31	·50	·40
5 to 10 „ ...	12	10	22	4·98	2·40
10 „ 15 „ ...	13	9	22	7·80	7·91
15 „ 20 „ ...	40	74	114	36·31	21·96
20 „ 25 „ ...	83	107	190	34·17	31·91
25 „ 35 „ ...	250	11	461	34·85	31·42
35 „ 45 „ ...	162	79	241	24·00	22·16
45 „ 55 „ ...	120	45	165	15·61	15·33
55 „ 65 „ ...	182	39	221	11·59	9·06
65 „ 75 „ ...	77	15	92	4·89	3·32
75 years and upwards	10	3	13	·96	·74
Total... ..	969	603	1,572	9·52	9·30

650. From a comparison of the figures in the last two columns, it will be observed that, in proportion to the total deaths, the mortality from phthisis in 1893, at all the age-periods except 10 to 15, was considerably above the average. In the year under review, about one-third of the deaths in the colony between the ages of 15 and 35, about one-fourth of those between 35 and 45, and nearly a sixth of those between 45 and 55, were caused by phthisis.

651. Of the 1,572 deaths from phthisis in 1893, 846 occurred in Melbourne and suburbs (Greater Melbourne) and 726 in other parts of the colony. In proportion to population, the deaths from phthisis have always been much more numerous in the metropolis than in the remainder of the colony, as is shown by the following figures, which are

Deaths of males and females from phthisis.

Ages at death from phthisis.

Phthisis most fatal to adults.

Phthisis in Melbourne and country.

the results for 1861, 1865, and each subsequent fifth year, also for 1891, 1892, and 1893 :—

DEATHS FROM PHTHISIS PER 10,000 PERSONS LIVING IN AND
OUTSIDE GREATER MELBOURNE, 1861 TO 1893.

Year.	Greater Melbourne.	Extra-Metropolitan Districts.
1861	23·44	10·63
1865	22·11	8·57
1870	22·49	8·56
1875	21·46	9·25
1880	23·95	8·92
1885	23·92	9·12
1890	20·02	10·59
1891	17·27	9·68
1892	19·21	9·63
1893	18·50	10·18
Mean of 33 years	21·81	9·17

652. In England and Wales, in the twenty-five years ended with 1891, the death rate from phthisis, per 10,000 persons living, ranged from 25·39 in 1867 to 15·68 in 1888, the mean of the first five years of the period having been as high as 23·96, whilst that of the last five years was as low as 16·07.* The latter proportion, though considerably lower than that of Greater Melbourne, is still much higher than that of Victoria taken as a whole. It may be remarked that there is no doubt the death rate from phthisis in the metropolis has for years past been swelled by the presence of persons who started from Europe whilst suffering from the disease in an advanced stage, and who were induced to take the voyage under the hope that benefit might be derived from the Australian climate, but have landed in Melbourne only to die there.

Death rate
from
phthisis in
England.

653. Of the 229 Chinese who died in Victoria in 1893, 32, or 14 per cent., fell victims to phthisis. In the ten years ended with 1890 16 per cent. of the deaths of Chinese were from phthisis.

Phthisis
among
Chinese.

654. Although none of the 19 deaths of Aborigines in 1893 were set down to phthisis, it is stated on good authority that phthisis is the chief cause of the death of the Australian Aborigines, who, when once affected, very seldom recover.

Phthisis
among
Aborigines.

655. The rate of mortality from phthisis is generally higher in Victoria than in any other of the Australasian Colonies. In Queensland,

Phthisis
in Austral-
asian
Colonies.

* See 53rd Report of the Registrar-General of England, page xl., where it is stated that nearly one-third of the apparent decrease in the death rate from phthisis is due to a large number of deaths formerly classed as resulting from that complaint being now set down to bronchitis, which disease consequently appears to have become more fatal than formerly. Thus the death rate from diseases of the respiratory system (except croup) rose from 33·94 in 1886-70 to 36·39 in 1886-90 per 10,000 living.

however, during the seven years ended with 1889, the rate in Queensland was much higher than that in Victoria, which was owing to the high mortality from phthisis which prevailed amongst the Polynesian labourers resident in the former.* Since 1889 the rate in Queensland has fallen, and has been below that in Victoria, although still above that in any other colony:—

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES, 1873 TO 1892.

Period.	Deaths from Phthisis.					
	Annual Number.	Per 10,000 Persons Living.	Annual Number.	Per 10,000 Persons Living.	Annual Number.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.*	
1873 to 1880 ...	1,055	13·10	671	8·22	233	12·52
1885 ...	1,384	14·46	1,078	11·58	593	19·20
1890 ...	1,631	14·58	1,029	9·34	515	13·35
1891 ...	1,483	12·93	1,053	9·21	501	12·38
1892 ...	1,581	13·60	1,018	8·62	423	10·17

Period.	Deaths from Phthisis.					
	Annual Number.	Per 10,000 Persons Living.	Annual Number.	Per 10,000 Persons Living.	Annual Number.	Per 10,000 Persons Living.
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 to 1880 ...	223	9·84	110	10·25	328	8·44
1885 ...	307	9·80	145	10·97	514	9·08
1890 ...	294	9·29	138	9·60	520	8·38
1891 ...	329	10·36	134	9·00	495	7·86
1892 ...	307	9·41	129	8·44	524	8·16

NOTE.—In Western Australia, the deaths from phthisis in the last eight years were as follow:—29 in 1885, 24 in 1886, 46 in 1887, 42 in 1888, 39 in 1889, 43 in 1890, 49 in 1891, and 47 in 1892; the proportions per 10,000 of the population being respectively 8·51, 6·45, 11·03, 9·93, 9·06, 8·97, 9·56, 8·40; average of eight years 8·99.

656. Deaths from tubercular diseases, viz., tabes mesenterica, tubercular meningitis (acute hydrocephalus), phthisis, and “other forms of tuberculosis,”† taken as a whole, numbered 13,052 in the ten years 1871 to 1880, 17,590 in the ten years 1881 to 1890, 1,962 in 1891, 1,972 in 1892, and 1,912 in 1893. These numbers furnish proportions per 10,000 of the population of 16·38 deaths annually at the first

* It is pointed out by the Registrar-General of Queensland, in his Annual Reports, that the death rate from phthisis as well as from other complaints in that colony is considerably swelled by the high mortality amongst the Polynesians. Nearly half the deaths from phthisis in 1884 and 1885, nearly two-fifths in 1886 and 1887, nearly one-third in 1889, nearly one-fourth in 1890, more than one-third in 1891, and nearly one-third in 1892, were of Polynesians, although they form a very small section (about 2½ per cent.) of the total population. Excluding the Polynesians from the calculation, the death rate from phthisis in Queensland in 1886 was only 9·2, in 1887 only 10·2, in 1888 only 8·75, in 1889 only 8·87, in 1890 only 10·47, in 1891 only 7·94, and in 1892 only 7·24 per 10,000. The general death rate of Polynesians in Queensland during 1890 was 48, during 1891 it was 62, and during 1892 it was 43 per 1,000.

† For an interesting report on the causes and methods of prevention of tuberculosis, see *Victorian Year-Book* for 1890-91, Vol. I., paragraph 647.

period, 17·57 at the second, 17·11 at the third, 16·96 at the fourth, and 16·34 at the last, which are all lower than the proportions relating to any of the subjoined countries except Spain:—

ANNUAL DEATH RATE FROM TUBERCULAR DISEASES IN VARIOUS COUNTRIES, 1881 TO 1884.*

		Deaths from Tubercular Diseases per 10,000 Persons Living.			Deaths from Tubercular Diseases per 10,000 Persons Living.
Austria (principal towns) ...	72·20	Denmark (towns) ...	30·42	Austria	38·39
Austria	38·39	Spain (towns) ...	29·24	Belgium (towns) ...	35·11
Belgium (towns) ...	35·11	Scotland	25·93	Germany (principal towns)	34·40
Germany (principal towns)	34·40	Italy	25·54	Massachusetts	34·25
Massachusetts	34·25	Ireland	22·43	Switzerland (towns) ...	32·50
Switzerland (towns) ...	32·50	Switzerland	21·79	Sweden (towns)	31·61
Sweden (towns)	31·61	England and Wales ...	21·09	Scotland (8 towns) ...	31·12
Scotland (8 towns) ...	31·12	Holland	19·73	Prussia	30·88
Prussia	30·88	Spain	12·32	Belgium	30·48
Belgium	30·48				

657. Next to phthisis, the most fatal of the constitutional diseases is cancer. This complaint caused 734 deaths in 1893, or 50 more than in the previous year. Cancer in a fatal form has apparently been fast increasing of late years, for during the ten years ended with 1880 it caused only one death in every 41 from all causes, but in the ten years ended with 1890 the proportion had risen to 1 in 29; moreover since 1861 the death rate from it has increased steadily from less than 2 to about 6 per 10,000 of the population. The following table shows the annual number of deaths from cancer, and the number per 10,000 persons living, in the three decades ended with 1890, and in each of the last four years:—

DEATHS FROM CANCER, 1861 TO 1893.

Period.	Annual Deaths from Cancer.			
	Total Number.			Number per 10,000 Persons Living.
	Males.	Females.	Total.	
1861 to 1870 ...	68	70	138	2·23
1871 to 1880 ...	158	138	296	3·73
1881 to 1890 ...	253	233	486	4·95
1890	338	288	626	5·60
1891	407	292	699	6·09
1892	359	325	684	5·88
1893	406	328	734	6·27
Total in 33 years ...	5,955	5,363	11,318	4·07

* See Dr. Raseri's paper, page 193. The diseases referred to are there termed "Tubercolosi diffusa, Tisi polmonare, Tubercolosi meningea, ed Idrocefalo."

Proportions
of the sexes
who died of
cancer.

658. Cancer is a complaint which generally affects females more than males.* In the thirty-three years to which the table relates, 90 of the former have died of it to every 100 of the latter, whereas the proportion of females to males at ages at which cancer is most prevalent (*i.e.*, above 30 years of age) has over the whole period † been considerably below the proportion named. In the year 1893, 81 females died of cancer to every 100 males, females over the age of 30 in the total population being in the proportion of about 80 to every 100 males.

Deaths from
cancer at
each age.

659. The number of males and females of different ages who died of cancer during the five years ended with 1891, and the proportion of those at each age to the total at all ages were as follow :—

DEATHS FROM CANCER AT EACH AGE, 1887 TO 1891.

Age.	Males.		Females.	
	Number of Deaths.	Proportions per cent.	Number of Deaths.	Proportions per cent.
Under 5 years ...	12	·74	5	·36
5 to 15 „ ...	12	·74	7	·51
15 to 25 „ ...	17	1·05	18	1·30
25 to 35 „ ...	49	3·03	72	5·21
35 to 45 „ ...	105	6·49	188	13·60
45 to 55 „ ...	344	21·26	331	23·94
55 to 65 „ ...	592	36·59	418	30·26
65 to 75 „ ...	372	22·99	251	18·16
75 and upwards ...	115	7·11	92	6·66
Total in 5 years ...	1,618	100·00	1,382	100·00

Periods at
which
cancer
occurs.

660. It will be observed that at the three periods between 15 and 45 years of age the actual number of females who died of cancer was greater than that of males, but that the latter preponderated at all the other groups ; also that, in the case of both sexes, the three periods at which the highest proportions occurred were those between 45 and 75.

Cancer in
Austral-
asian
Colonies.

661. Judging from the following figures it would appear that, whilst formerly cancer was more prevalent in Tasmania than in any other Australasian Colony, it has of late years been most prevalent in Victoria. It will, moreover, be observed that in all the colonies except

* The difference may not really be so great as it appears to be from the figures. See *Victorian Year-Book*, 1887-8, Vol. I., paragraph 699.

† At the age referred to, females in the population were in the proportion of 42 at the census of 1861, of 59 at the census of 1871, of 74 at the census of 1881, and of 80 at the census of 1891, to every 100 males.

Western Australia (where the rate has fluctuated considerably) and Tasmania, the death rate from cancer has increased:—

DEATHS FROM CANCER IN AUSTRALASIAN COLONIES,
1882 TO 1892.

Colony.	Period.	Annual Deaths from Cancer.	
		Number.	Proportion per 10,000 Persons Living.
Victoria ...	1882 to 1884	423	4·64
	1885	445	4·65
	1890	626	5·60
	1891	699	6·09
	1892	684	5·88
New South Wales ...	1882 to 1884	221	2·65
	1885	267	2·87
	1890	392	3·56
	1891	516	4·51
	1892	510	4·32
Queensland ...	1882 to 1884	73	2·69
	1885	53	1·71
	1890	117	3·03
	1891	134	3·31
	1892	130	3·13
South Australia ...	1882 to 1884	95	3·16
	1885	100	3·19
	1890	129	4·08
	1891	156	4·92
	1892	148	4·54
Western Australia ...	1882 to 1884	10	3·08
	1885	17	4·99
	1890	15	3·15
	1891	20	3·90
	1892	16	2·86
Tasmania ...	1882 to 1884	64	5·14
	1885	60	4·54
	1890	79	5·50
	1891	68	4·57
	1892	69	4·51
New Zealand ...	1882 to 1884	165	3·12
	1885	177	3·13
	1890	295	4·75
	1891	295	4·68
	1892	307	4·78

662. In England and Wales there has for years past been a progressive increase in the death rate from cancer. This rate, in the five years ended with 1890, was much higher than that prevailing in

Deaths from cancer in England and Wales.

any Australasian Colony. The following figures are taken from the reports of the Registrar-General, who, however, indicated that he entertained doubts as to whether the increase shown by the figures was not partly due to improved diagnosis and more careful statement of the cause* :—

DEATHS FROM CANCER IN ENGLAND AND WALES.

		Deaths from Cancer per 10,000 Persons Living.			Deaths from Cancer per 10,000 Persons Living.
1861 to 1865	...	3·68	1886 to 1890	...	6·32
1866 to 1870	...	4·04	1891 to 1892	...	6·91
1871 to 1875	...	4·46			—
1876 to 1880	...	4·95	Mean	...	5·12
1881 to 1885	...	5·48			—

Deaths from
cancer in
various
countries.

663. According to the following figures, cancer would appear to be less fatal in Victoria and Tasmania than in any of the countries named except Prussia, Ireland, and Austria ; less fatal in South Australia than in any except Prussia ; and, apparently, less fatal in New Zealand, Western Australia, Queensland, and New South Wales than in any one of the countries referred to:—

ANNUAL DEATH RATE FROM CANCER IN VARIOUS COUNTRIES, 1881 TO 1884.†

		Deaths from Cancer per 10,000 Persons Living.			Deaths from Cancer per 10,000 Persons Living.
Austria (15 principal towns) ...	...	11·20	England and Wales	...	5·35
Denmark (towns) ...	...	10·98	Massachusetts	...	5·30
Sweden (towns) ...	...	8·71	Scotland (8 towns)	...	5·27
Switzerland ...	...	8·46	Scotland	...	5·26
Italy ...	...	6·13	Austria	...	4·23
Holland ...	...	5·82	Ireland	...	3·69
			Prussia	...	3·13

Seat of
cancer

664. Any part of the body is liable to be affected by cancer. The affected part is seldom mentioned in the Victorian returns, but the Registrar-General of Ireland‡ succeeded in obtaining information as to the seat of the complaint in 1,810 out of 2,145 fatal cases which occurred in Ireland during 1890. The figures are re-arranged in the following table, the sexes being distinguished, and the number placed

* See 46th Annual Report of the Registrar-General of England, page xviii ; also *Victorian Year-Book*, 1887-8, Vol. I., paragraph 699.

† See Dr. Raseri's paper, page 193.

‡ See 27th Report of the Registrar-General of Ireland, page 17.

in the order of the frequency of their occurrence in different parts of the body:—

SEAT OF CANCER IN MALES AND FEMALES.

Males.			Females.		
Parts affected.	Deaths from Cancer.		Parts affected.	Deaths from Cancer.	
	Number.	Proportions per cent.*		Number.	Proportions per cent.*
Stomach ...	276	36·36	Stomach ...	255	24·26
Liver ...	73	9·62	Breast ...	236	22·46
Lips ...	66	8·69	Uterus ...	166	15·79
Face ...	55	7·25	Liver ...	106	10·09
Rectum ...	51	6·72	Intestines ...	45	4·28
Tongue ...	41	5·40	Rectum ...	45	4·28
Throat ...	37	4·87	Face ...	39	3·71
Jaw ...	30	3·95	Leg ...	33	3·14
Intestines ...	28	3·69	Throat ...	28	2·66
Hand ...	21	2·76	Pylorus ...	18	1·71
Neck ...	20	2·64	Neck ...	14	1·33
Leg ...	18	2·37	Tongue ...	12	1·14
Penis ...	11	1·45	Hand ...	10	·95
Eye ...	10	1·32	Eye ...	9	·86
Pylorus ...	10	1·32	Lips ...	9	·86
Head ...	4	·53	Jaw ...	9	·86
Breast ...	4	·53	Foot ...	9	·86
Foot ...	4	·53	Head ...	8	·76
Total ...	759	100·00	Total ...	1,051	100·00
Parts unspecified	179	...	Parts unspecified	156	...
Grand Total ...	938	...	Grand Total ...	1,207	...

665. It appears from the figures that in both sexes the stomach is the part most liable to cancer, next the liver in men, also in women after the breast and uterus. The much greater frequency of cancer on the lips, tongue, throat, and jaw in men than in women would seem to point to smoking as a probable exciting cause. It would be interesting to know whether cancer of these parts occurs more commonly to smokers than to non-smokers. Parts most frequently affected.

666. Developmental diseases,† Class V., caused 105 deaths in 1893 to every 100,000 of the population. Of these 52 were due to diseases peculiarly affecting infants, such as premature birth and malformations, and 53 to old age. The rate of mortality from the whole class in 1893—viz., 105 per 100,000—appears to have been 1 below the average of the ten years 1881–90, and 29 above that of the ten years ended with 1880; the increase, as compared with the last-named period, being to a large extent confined to deaths from old age. The death rate from Developmental diseases.

* These calculations have been made in the office of the Government Statist, Melbourne.

† This class of diseases differs from that under the old nosology; dentition, paramenia and childbirth, and atrophy and debility not being now classed as developmental diseases.

this class of complaints is always much higher in England than in Victoria.

Local
diseases.

667. Local diseases, Class VI., or diseases of special organs or systems, usually cause a much higher mortality than any other class of complaints; thus, in 1893, 7,922 deaths, or 48 per cent. of the deaths from all causes, were ascribed to them, as against 49 per cent. in the ten years 1881 to 1890. The deaths from diseases placed in this class in 1893 were in the proportion to every 100,000 of the population of 677, or 14 below the average of the decade. Nearly a fifth of these diseases were due to affections of the brain and nerves; between a sixth and a fifth to those of the circulatory system, including heart disease; between a fourth and a third to lung and throat diseases—viz., croup, bronchitis, pneumonia, pleurisy, &c.; close upon a fourth to diseases of the digestive organs; $6\frac{2}{3}$ per cent. to diseases of the urinary organs; $1\frac{1}{4}$ per cent. to accidents of childbirth; and the remainder to diseases of the generative, locomotive, and integumentary systems; of the organs of special sense; and of the lymphatic and ductless glands. In the year under review the death rates from complaints of the nervous and respiratory systems and from accidents of childbirth were lower, and those from complaints of the circulatory, digestive, lymphatic, urinary, and locomotive systems were higher, than the average of either of the decennial periods named; whilst the rate from complaints of the generative system was higher, and that from complaints of the integumentary system was lower, than the average of the decade 1881–90, but lower and higher respectively than the average of the decade 1871–80. In England the death rate from local diseases is, on the average, fully 40 per cent. higher than the death rate from that class of complaints in Victoria.

Diseases of
respiratory
system.

668. The mortality from diseases of the respiratory system in 1893, although somewhat higher than that in 1892, was considerably below the average. The proportion in 1893 was 190 deaths to every 100,000 persons living, while it was 181 in 1892, 213 in the ten years 1881–90, and 195 during the ten years 1871–80. The diseases in this group cause, on the average, half as many deaths again as phthisis (which is not included amongst “lung diseases,” being classed as a “constitutional disease” *). The victims are, for the most part, both young children and old people, the majority dying in the winter quarter (July to September). In the year under review the actual number of deaths from these causes was 2,221, being equal to not quite one-seventh of the total mortality; and of these pneumonia caused 993, bronchitis 743, congestion of the lungs 147, and croup 62. Of those who died from these

* See paragraph 645 *ante*.

complaints, 960 were under five years—500, or more than half of these, being under 1 year—and 841 were over 50 years of age. If deaths from phthisis be added to those from diseases of the respiratory system, it will be found that altogether 3,793 deaths in 1893 (or 104 more than in 1892) were from diseases particularly affecting the organs of respiration, which is between one-fourth and one-fifth of the total mortality.

669. Bronchitis and pneumonia, with congestion of the lungs, caused 11,477 deaths in the ten years ended with 1880, 16,404 in the ten years ended with 1890, and 1,883 in 1893, which numbers furnish proportions per 10,000 of the population of 14·40 deaths annually for the first period, of 16·38 annually for the second period, and of 16·09 for 1893. The complaints referred to are, according to the following figures, much less fatal here than in any of the countries named, it being assumed that congestion of the lungs is included with bronchitis and pneumonia in the returns of the various countries :—

Bronchitis and pneumonia in various countries.

ANNUAL DEATH RATE FROM BRONCHITIS AND PNEUMONIA IN VARIOUS COUNTRIES, 1881 TO 1884.*

	Per 10,000 Persons Living.		Per 10,000 Persons Living.
Spain (principal towns) ...	53·15	Germany (principal towns)	27·87
Italy ...	45·31	Denmark (towns) ...	27·47
Scotland (eight towns) ...	38·06	Belgium (principal towns)	27·06
Austria (principal towns) ...	37·95	Ireland ...	26·76
Holland ...	36·32	Switzerland (principal towns)	26·69
Scotland ...	34·13	Spain ...	24·12
Belgium ...	32·87	Sweden (principal towns)	24·10
England and Wales ...	32·25	Massachusetts ...	21·03
Switzerland ...	31·52	Prussia ...	16·63
Austria ...	28·09		

670. The death rate from a given complaint is usually ascertained by comparing the number of deaths from it with the number of persons living, but the death rate of women in childbed is better realized by comparing the number of deaths of parturient women with the total number of births. Such deaths are classified in two ways. If the death is supposed to occur merely from the consequences of childbearing without specific disease, it is set down under the head of Childbirth, Class VI., Sub-class 9; but, if it should arise from Puerperal Fever, it is placed under that head, Class I., Sub-class 6. In 1893 the proportion of deaths of child-bearing women to the number of children born was higher than that recorded in 1892, but was lower than that in 1891 or than the average of either of the decennial periods ended with 1890, 1880, or than that of the septennial period ended with 1870. The

Deaths in childbed.

* See Dr. Raseri's paper, page 193. The complaints referred to are there termed "Bronchite e Polmonite."

proportions which prevailed in each of those periods, and in the last three years, are shown in the following table:—

DEATHS OF WOMEN IN CHILDBIRTH, 1864 TO 1893.*

Period.	Number of Mothers who died annually of—			Deaths of Mothers to every 10,000 Children born alive.
	Childbirth.	Puerperal Fever (Metria).	Total.	
1864-70	108	20	128	49·06
1871-80	127	46	173	64·38
1881-90	121	64	185	59·19
1891	125	67	192	49·86
1892	114	61	175	46·26
1893	98	81	179	48·97

Deaths in
childbed in
Victoria
and United
Kingdom.

671. The proportion of women dying in childbed during the period of twenty-seven years ended with 1890 was 1 to 171 births of living children, and in 1893 the proportion was 1 to every 204 such births. In the decennial period ended with 1890, the proportion was 1 to every 169 births; in that ended with 1880, it was as high as 1 to every 155 births; and in the septennial period 1864-70 it was as low as 1 to every 204 births. The average proportions for the two latest periods are much higher than those in England and Wales, where, in the ten years ended with 1889, 206 births occurred to each recorded death of a mother.† In Scotland, 1 woman died in childbirth to every 149 births in 1874, and 1 to every 197 births during 1889; and in Ireland, during the ten years 1869-78, 1 woman died in childbirth to every 151 births, and in 1890, 1 to every 152.

Deaths from
childbirth
in Women's
Hospital.

672. In the Midwifery Department of the Melbourne Women's Hospital, 935 women were confined, and 858‡ infants were born alive, during the year ended 30th June, 1893. Ten deaths of mothers occurred during or shortly after parturition, or 1 death of a mother to every 94 deliveries, or to every 86 births, as compared with 1 such death to 84 deliveries, or 79 births in 1891-2; to 170 deliveries, or 159 births, in 1890-91; to 89 deliveries, or 83 births, in 1889-90; and 1 to every 76 deliveries, or 71 births, in 1888-9. The average in the hospital during the five years referred to (viz., 1 to every 89 births) was more than twice that for the whole colony, where a proportion of

* For number in each year see *Victorian Year-Book*, 1890-91, Vol. I., table following paragraph 657.

† There is reason to believe that the mortality from Childbirth and Metria in England is much understated, as the sending out of letters of inquiry in 1882—an exceptional proceeding—respecting certain ill-defined causes of death had the effect of increasing the recorded mortality from childbirth and Metria 10 per cent. If this correction be applied to the average above stated, the proportion would be 1 death of a mother to as few as 185 births.—See 45th Annual Report of the Registrar-General of England, page xvii.

‡ There were 5 cases of twins.

1 to every 206 births prevailed during the corresponding period; but it should be mentioned that, all over the world, maternity hospitals are subject to receive a worse class of cases than the average of those dealt with outside, women not unfrequently being brought in such a state as to render their recovery from the first almost hopeless; therefore, in all such institutions, the death rate of the inmates is higher than that which prevails amongst child-bearing women in the general population.

673. In proportion to the number of confinements, deaths of lying-in women appear to be on the average more common in Victoria than in any other Australasian Colony.* In 1891, however, the proportion was higher in Queensland, South Australia, and New Zealand, and in 1892 it was higher in Tasmania and New Zealand than it was in Victoria. The following table contains a statement of the deaths recorded as having occurred from Childbirth and Metria in the Australasian Colonies according to the average of two periods since 1872, and in each of the last two years, also the proportion of such deaths to every 10,000 children born alive in each colony:—

Deaths in childbed in Australasian Colonies.

DEATHS FROM CHILDBIRTH AND PUERPERAL FEVER (OR METRIA) IN AUSTRALASIAN COLONIES, 1873 TO 1892.

Period.	Deaths from Childbirth and Puerperal Fever.					
	Annual Number.	Per 10,000 Children born alive.	Annual Number.	Per 10,000 Children born alive.	Annual Number.	Per 10,000 Children born alive.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 to 1880...	186	69.50	128†	51.17†	39	55.91
1881 to 1890...	185	59.28	148	42.70	64	54.14
1891 ...	192	49.86	165	41.82	92	62.52
1892 ...	175	46.26	153	38.21	61	40.94
Mean of 20 yrs.	185	62.25	128	45.82	56	54.61
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 to 1880...	42	49.33	21	63.60	76	48.06
1881 to 1890...	48	44.09	15	33.89	106	55.78
1891 ...	61	56.81	18	36.21	95	51.99
1892 ...	46	43.63	24	48.34	103	57.62
Mean of 20 yrs.	46	46.80	18	46.61	93	52.59

NOTE.—In Western Australia 6 deaths of child-bearing women occurred in 1887, 3 in 1888, 4 in 1889, 3 in 1890, 6 in 1891, and 10 in 1892, or at the rates of 36.7, 19.8, 25.1, 19.2, 33.6, and 54.11 per 10,000 births, respectively.

* It is certain that in most, if not all, countries many deaths occurring from circumstances connected with Childbirth are not certified to by medical men as due to that cause. For remarks on this subject, see *Victorian Year-Book*, 1889-90, Vol. I., paragraph 719.

† Average of years 1875-80.

Low death rate from childbirth in colonies, 1892.

674. The above figures show that, in proportion to the children born alive, the number of deaths of child-bearing women in 1892 was below the average in all the colonies except Tasmania and New Zealand. In those colonies the rates were above the average.

Deaths from child-bearing in various countries.

675. Comparing the deaths of child-bearing women in Victoria with every 10,000 of the population, the proportions annually were 2·17 for the decennial period 1871 to 1880, 1·85 for the decennial period 1881 to 1890, 1·50 for 1892, and 1·53 for 1893. These and the following figures show that in regard to the mortality of women in childbed as compared with many other countries Victoria stands below the average, and especially so, as it would appear, that deaths from diseases of pregnancy, as well as from circumstances attendant upon child-bearing, are included in the following list, which they are not in the figures for Victoria:—

ANNUAL DEATH RATE FROM DISEASES OF PREGNANCY AND CHILD-BEARING IN VARIOUS COUNTRIES, 1881-4.*

Deaths from Pregnancy and Child-bearing per 10,000 Persons Living.			Deaths from Pregnancy and Child-bearing per 10,000 Persons Living.		
Spain (principal towns)	...	3·77	Massachusetts	...	1·80
Spain	...	3·56	Denmark (towns)	...	1·76
Belgium	...	2·32	Belgium (principal towns)	...	1·72
Prussia	...	2·20	Ireland	...	1·65
Italy	...	2·13	England and Wales	...	1·60
Scotland (eight towns)	...	2·10	Holland	...	1·43
Switzerland	...	2·06	Sweden	...	1·29
Switzerland (principal towns)	...	2·02	Sweden (principal towns)	...	1·27
Scotland	...	1·87	Germany (principal towns)	...	1·23

Violent deaths.

676. Deaths from external causes, Class VII., in proportion to population, were formerly twice as numerous in Victoria as in England and Wales; but in recent years, as the number of individuals engaged in mining operations has decreased, and greater precautions are taken for the prevention of accidents, the rate in the former has fallen considerably. Over a series of twenty-seven years, the average annual number of violent deaths per 100,000 of the population was 136, but during the ten years 1871-80 it was only 108, in the subsequent ten years it fell to 97, and in 1893 to as low as 85. The last-named rate is higher by a third than the rate prevailing in England and Wales, where it averages only 63½. The greater frequency of violent deaths in Victoria than in England appears in all classes of such deaths, those from accidents and executions being generally, in proportion to population, about a third more numerous, suicides half as numerous again, and homicides twice as numerous.

* See Dr. Raseri's paper, page 193; the complaints referred to are there termed "Malattie di gravidanza, parto e puerperio."

677. The number of violent deaths recorded in Victoria during 1893 was 997, of which 810, or 81 per cent., were ascribed to accident; 52, or 5 per cent., to homicide; and 134, or 14 per cent., to suicide. Deaths from accidents were formerly more numerous than those from any single disease, and more recently than those from any specific disease except phthisis and diarrhœa.* Forty-one per cent. of the deaths from accidents in 1893 were due to fractures, 25 per cent. to drowning, and 14 per cent. to burns and scalds. Allowing for increase of population, homicides were 18 above, and suicides 5 above, the average of the ten years ended with 1890. The following table shows the number of deaths and the exact modes of death under the heads of accident and suicide, also the number of deaths from homicide and execution, during the year 1893, and the ten years ended with 1890, the sexes of those who died being distinguished:—

Violent deaths, 1893 and previous years.

VIOLENT DEATHS.

Causes of Death.	Year 1893.			Ten Years: 1881 to 1890.		
	Males.	Females.	Total.	Males.	Females.	Total.
Accidents—						
Fractures and contusions	293	39	332	3,175	389	3,564
Gunshot wounds ...	19	4	23	138	12	150
Cuts, stabs, &c. ...	7	1	8	94	30	124
Burns and scalds ...	57	54	111	400	541	941
Sunstroke ...	7	2	9	161	72	233
Lightning ...	1	...	1	23	3	26
Poison ...	8	9	17	142	62	204
Snake, insect-bite ...	5	3	8	32	6	38
Drowning ...	175	29	204	1,691	373	2,064
Suffocation ...	45	37	82	402	246	648
Others ...	10	5	15	222	60	282
Total ...	627	183	810	6,480	1,794	8,274
Homicide ...	31	21	52	163	127	290
Suicide—						
Gunshot wounds ...	36	...	36	196	7	203
Cuts, stabs, &c. ...	20	2	22	159	22	181
Poison ...	14	11	25	122	61	183
Drowning ...	8	7	15	153	53	206
Hanging ...	27	2	29	258	20	278
Otherwise ...	4	3	7	41	9	50
Total ...	109	25	134	929	172	1,101
Execution ...	1	...	1	13	...	13
Grand Total ...	768	229	997	7,585	2,093	9,678

* See table following paragraph 612 ante. In 1893, the exceptions were phthisis, enteritis, and pneumonia.

Violent
deaths in
proportion
to total
deaths.

678. During the ten years ended with 1890, 80,559 males and 59,157 females died of specified causes; and it results from these figures and those in the foregoing table that, of the males, 1 in every 11 died a violent death; 1 in every 13 died of an accident; 1 in every 494 was a victim to homicide; 1 in every 87 committed suicide; and 1 in every 6,197 was executed. Of the females, 1 in every 28 died a violent death; 1 in every 33 died of an accident; 1 in every 466 died by the hand of another; 1 in every 344 committed suicide; but, happily, not one was executed.

Violent
deaths of
males and
females.

679. Males are much more subject to violent deaths than females. Of those who so died in 1893, 768, or 77 per cent., belonged to the male, and 229, or 23 per cent., to the female sex. These proportions correspond closely with those which prevailed during the ten years ended with 1890.

Violent
deaths—
proportion
of males
and
females.

680. Omitting fractions, it may be roughly stated that, where 1 female dies a violent death in Victoria, 4 males die violent deaths; where 1 female dies of an accident, 4 males die of accidents; where 1 female commits suicide, 5 males do so; and about one-third more males are murdered than females. Up to the end of 1893 only 1 woman had been executed in the colony since its first settlement*; but in the 42½ years since Victoria has been an independent colony as many as 141 males have been executed.

Burns and
scalds.

681. The only violent deaths which habitually affect females more than males are those resulting from burns and scalds.† All other circumstances which occasion such deaths, as a rule, bear more hardly upon males than upon females.

Suicidal
deaths.

682. One hundred and thirty-four persons took their own lives in 1893, as compared with the same number in 1892, and 119 in 1891. During the ten years ended with 1890 the mean annual number of deaths by suicide was 110.

Modes of
suicide in
Victoria.

683. Hanging is the most common mode by which men commit suicide, shooting the next, cutting or stabbing and drowning, with almost equal frequency, the next, and taking poison the next. In 1893, however, most men committed suicide by shooting, next by hanging, next by stabbing, and next by poisoning, but very few by drowning. Females most frequently take their lives by drowning or by taking poison, next by stabbing or hanging, but only seven times in the 172 cases which occurred during the ten years ended with 1890 by shooting.

* Two more women were executed in 1894.

† In 1893 more males than females died of burns or scalds, the numbers being 57 and 54. The circumstance was quite exceptional.

It may be mentioned that suicide by shooting is much more common now than formerly, the cases in that decennial period being nearly three times as numerous as in the preceding one.

684. The Registrar-General of England, in his 46th Report, gives the following table, showing the proportion, during the ten years ended with 1880, of suicides effected by different methods in England and Wales. With the exception of shooting, the relative frequency of each method follows substantially the same order as that obtaining in Victoria:—

MODES OF COMMITTING SUICIDE IN ENGLAND AND WALES.

Methods.	Number by each Method per 1,000 by all Methods.	
	Males.	Females.
Hanging or strangulation	400	268
Drowning	165	333
Cut or stab	212	149
Poison	79	172
Shooting	68	2
Jump from height	20	36
Railway train...	24	7
Otherwise	32	33
Total	1,000	1,000

Modes of suicide in England.

685. Suicide frequently occurs amongst the Chinese. Seven men of this race committed that act in 1893, but only one in the previous year. Of the eight referred to, all but two hanged themselves. In 1893 the estimated number of Chinese males in the colony was 7,417; so that those who committed suicide during that year were in the proportion of 1 to 1,060. In the general male population the proportion of persons committing self-destruction averages 1 in about 5,650.

Suicides of Chinese.

686. According to the results in the following table, it would appear that, in proportion to population, suicide over a series of years is more common in Victoria than in any other Australasian Colony except Queensland. It should, however, be stated that the death records frequently do not upon the surface show that the death has been suicidal, and close examination, with sometimes further inquiry, is therefore necessary to determine that fact. It is hence likely that the full extent to which suicide prevails in some of the colonies is not ascertained. The following are the average annual suicides and their proportion to every 100,000 of the population during the twenty years ended with 1892, divided into two periods of eight and ten years, also

Suicides in Australasian Colonies.

during each of the last two years, recorded in all the Australasian Colonies except Western Australia, for which the information is obtainable for only five of those years:—

DEATHS FROM SUICIDE IN AUSTRALASIAN COLONIES,
1873 TO 1892.

Period.	Deaths from Suicide.					
	Annual Number.	Per 100,000 Persons Living.	Annual Number.	Per 100,000 Persons Living.	Annual Number.	Per 100,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 to 1880	99	12·3	58	9·3	25	13·2
1881 to 1890	110	11·2	95	10·1	47	15·0
1891 ...	119	10·4	119	10·4	73	18·0
1892 ...	134	11·5	127	10·7	65	15·6
Mean of 20 years ...	106	11·6	83	9·8	40	14·5
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 to 1880	19	8·2	7	6·4	32	8·4
1881 to 1890	28	9·2	7	5·3	53	9·3
1891 ...	31	9·8	9	6·0	56	8·9
1892 ...	27	8·3	9	5·9	59	9·2
Mean of 20 years ...	24	8·8	7	5·8	45	8·9

NOTE. - In Western Australia, there were recorded 5 suicides in 1888, 1889, and 1890, 6 in 1891, and 11 in 1892; the proportions per 100,000 of the population being 11·9, 11·7, 10·4, 11·7, and 19·65 respectively.

687. It will be observed that, according to the records of the ten years 1881-1890, the suicides which take place annually in Queensland are on the average equivalent to $1\frac{1}{2}$ per 10,000 persons living; those in Victoria, New South Wales, and Western Australia* are somewhat above, and those in South Australia and New Zealand somewhat below, 1 per 10,000; whilst those in Tasmania averaged only one-half that proportion. In 1892 suicides were above the average in all the colonies except Victoria and South Australia.

688. By the following figures, which have been derived from various sources, it appears that suicide is more common in seven countries out of Australasia than in Queensland, in ten than in Western Australia, Victoria, New South Wales, New Zealand, or South Australia, whilst there are only ten out of the twenty-four

* According to the average of only five years.

Proportion of suicides in different colonies.

Suicides in various countries.

countries named in which suicide is less common than it is in Tasmania :—

DEATHS FROM SUICIDE IN DIFFERENT COUNTRIES.

	Deaths from Suicide in each Year per 100,000 Persons Living.		Deaths from Suicide in each Year per 100,000 Persons Living.
Saxony ...	31.1	Bavaria ...	9.1
Denmark ...	25.8	Sweden ...	8.1
Schleswig-Holstein ...	24.0	England and Wales ...	7.9
German Empire ...	20.8	Norway ...	7.5
France ...	20.5	Tasmania ...	5.3
Switzerland ...	20.2	Hungary ...	5.2
Austria ...	15.9	Italy ...	4.5
Queensland ...	15.0	Finland ...	4.5
Hanover ...	14.0	Scotland ...	4.0
Prussia ...	13.3	Netherlands ...	3.6
Belgium ...	13.0	United States... ..	3.5
Western Australia ...	11.3	Russia in Europe*	2.8
Victoria ...	11.2	Ireland ...	2.5
New South Wales ...	10.1	Poland ...	2.3
New Zealand ...	9.3	Spain ...	1.4
South Australia ...	9.2		

689. According to the following figures, violent deaths in Victoria, during the nine years ended with 1890, as also in 1891 and 1892, occurred in a higher proportion to the population than in South Australia, Tasmania, and New Zealand, but were less common than in any of the other Australasian Colonies :—

VIOLENT DEATHS IN AUSTRALASIAN COLONIES, 1882 TO 1892.

Colony.	Period.	Violent Deaths.	
		Annual Number.	Per 10,000 Persons Living.
Victoria ...	1882 to 1890	981	9.83
	1891	1,079	9.41
	1892	1,047	9.00
New South Wales ...	1882 to 1890	1,056	10.88
	1891	1,165	10.19
	1892	1,153	9.76
Queensland ...	1882 to 1890	543	16.45
	1891	562	13.88
	1892	546	13.13
South Australia ...	1882 to 1890	227	7.30
	1891	207	6.52
	1892	197	6.04
Western Australia...	1882 to 1890	57	15.23
	1891	61	11.90
	1892	92	16.44
Tasmania...	1882 to 1890	109	7.99
	1891	121	8.12
	1892	111	7.26
New Zealand ...	1882 to 1890	526	9.04
	1891	506	8.03
	1892	529	8.24

* Exclusive of Poland and Finland.

Death rate
from
violence in
various
countries.

690. In the following table, the Australasian Colonies and certain European countries are arranged in order in accordance with the proportion of deaths from violence to the population of each country which have occurred during a series of years; the proportion of such deaths from accident or negligence, homicide, and suicide being also shown. The figures relating to European countries have been partly derived from the 40th Report of the Registrar-General of England:—

DEATH RATE FROM VIOLENCE IN VARIOUS COUNTRIES.

Countries.	Proportion per 100,000 Living of Deaths from—			
	Violence of all kinds.	Accident or Negligence.	Homicide.*	Suicide.
Queensland	163·8	141·1	6·4	13·5
Western Australia	161·7	133·9	12·1	9·2
New South Wales	111·7	94·9	3·1	9·3
New Zealand	95·7	84·0	1·4	9·0
Victoria	94·6	82·6	2·9	11·0
Switzerland	92·4	68·9	3·9	20·2
United Kingdom†	77·5	69·7	1·6	6·2
England and Wales	75·7	66·7	1·7	6·9
Tasmania	74·5	68·5	1·5	5·3
South Australia	74·2	63·4	1·4	8·9
Norway	72·4	64·1	1·3	7·5
Scotland	72·0	68·2	·1	4·0
Sweden	61·9	50·7	2·0	8·1
Finland	54·7	47·0	3·2	4·5
France	54·0	...	...	...
Bavaria	51·9	37·7	3·9	9·1
Belgium	48·3	38·5	1·6	6·9
Austria	45·0	25·8	...	15·9
Russia in Europe	47·0	40·4	3·8	2·8
Ireland	39·1	35·3	1·7	1·7
Poland	33·7	27·3	4·1	2·3
Italy	24·0	14·9	5·4	3·7

NOTE. — In some instances the proportions of deaths from accident, homicide, and suicide are not for the same period as those from violence of all kinds.

Proportion
of violent
deaths in
different
countries.

691. It will be seen that the list is headed by five Australasian Colonies, in all of which the proportion of violent deaths is higher than in any of the European countries named. Victoria, however, stands below the other four colonies referred to, and immediately above Switzerland, which, with the United Kingdom and England and Wales, stands immediately above Tasmania and South Australia. According to the figures, the countries in which the proportion of accidents is greatest are Queensland and Western Australia; the country in which the proportion of homicides is greatest is Western Australia; and the

* Not including executions.

† Including the Shipping.

countries in which the proportion of suicides is greatest are Austria and Switzerland.

692. The following table gives a statement of the number of cases of death and injury from accidents on the Government lines of railway during the 34½ years ended with 30th June, 1893, embracing the whole period of the existence of railways in Victoria:—

DEATHS FROM RAILWAY ACCIDENTS, 1859 TO 1892-3.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own misconduct or want of caution.	Total.	From causes beyond their own control.	From their own misconduct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868 ...	37	...	...	...	3	19	22	1	14	...
1869 to 1878 ...	97	...	1	1	10	38	48	5	35	8
1879 to 1887-8*	322	10	14	24	8	126	134	41	111	12
1888-9 ...	78	1	4	5	4	23	27	7	37	2
1889-90 ...	74	1	8	9	9	21	30	7	22	6
1890-91 ...	72	...	3	3	7	14	21	9	37	2
1891-2 ...	52	1	5	6	1	14	15	3	21	7
1892-3 ...	29	...	...	...	...	6	6	2	19	2
Total killed ...	761	13	35	48	42	261	303	75	296	39

Railway accidents.

PERSONS INJURED BY RAILWAY ACCIDENTS, 1859 TO 1892-3.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own misconduct or want of caution.	Total.	From causes beyond their own control.	From their own misconduct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868 ...	84	22	2	24	5	45	50	1	7	2
1869 to 1878 ...	165	87	6	93	24	30	54	1	10	7
1879 to 1887-8...	1,415	679	142	821	101	369	470	26	36	62
1888-9 ...	358	116	82	198	24	107	131	5	12	12
1889-90 ...	401	20	115	135	49	186	235	5	13	13
1890-91 ...	345	19	82	101	60	133	193	6	8	37
1891-2 ...	342	37	86	123	63	115	178	7	13	21
1892-3 ...	326	17	117	134	33	111	144	7	7	34
Total injured	3,436	997	632	1,629	359	1,096	1,455	58	106	188

NOTE.— For the number of deaths and injuries from railway accidents in each year from 1869 to 1890-91, see *Victorian Year-Book*, 1892, Vol. I., table following paragraph 774.

* The high mortality in this period was chiefly due to the Windsor railway accident, which occurred on the 11th May, 1887. So far as the numbers killed and injured are concerned, this was the worst railway accident which has occurred in Victoria.

Railway
passengers
and ser-
vants killed
and
injured.

693. It will be observed that, in the whole period of $34\frac{1}{2}$ years, 761 persons were killed and 3,436 were injured on the State lines of railway, and that, exclusive of trespassers, persons crossing the lines, &c., 296 of the former and 1,728 of the latter met their death or injury in consequence of their own misconduct or want of caution. Of the persons killed throughout the period, 48 were passengers, and as many as 303 railway or contractors' servants; 35 of the former, and 261 of the latter, having suffered in consequence of their own carelessness. The passengers injured numbered 1,629, and the railway servants 1,455; as many as 1,096 of the latter, but only 632 of the former, suffered from their own action. At crossings, 75 persons were killed, and 58 injured. As many as 296 trespassers were killed; these no doubt include persons who committed suicide by placing themselves in the way of trains. The trespassers injured have numbered 106.

Gold-mining
accidents.

694. In the twenty years ended with 1893, embracing the whole period during which the Regulation and Inspection of Mines and Machinery Statutes* have been in operation, 975 persons lost their lives, and 2,195 persons were injured, from accidents connected with gold-mining operations. The following were the numbers and their proportions to the number of miners at work in the periods embracing the first seven and the next ten of those years, also in 1891, 1892, and 1893:—

DEATHS AND INJURIES FROM GOLD-MINING ACCIDENTS,
1874 TO 1893.

Year.	Miners at work in periods named.	Number of Persons—			Numbers per 1,000 Miners at work—		
		Killed.	Injured.	Total.	Killed.	Injured.	Total.
1874 to 1880 ...	281,444	430	1,093	1,523	1·47	3·75	5·22
1881 to 1890 ...	290,194	455	880	1,335	1·57	3·03	4·60
1891 ...	23,763	21	57	78	·88	2·39	3·27
1892 ...	23,370	34	70	104	1·45	2·99	4·44
1893 ...	24,850	35	95	130	1·40	3·82	5·22
Mean of 20 years	32,181	48	110	158	1·51	3·41	4·92

NOTE.—For the number of deaths and injuries from gold-mining accidents during each of the eighteen years ended with 1891, see *Victorian Year-Book* 1892, Vol. I., table following paragraph 776.

Gold-mining
accidents,
1893.

695. In 1893, fatal mining accidents numbered 1, and non-fatal 25, more than in the previous year. In the former class the proportion to the number of miners at work was less, but in the latter more, than the mean proportion prevailing during the whole period of twenty years to which the table refers.

* 37 Vict. No. 480, 41 Vict. No. 583, 45 Vict. No. 719, and 47 Vict. No. 783, now consolidated under 54 Vict. No. 1120.

696. According to the mean of the twenty years to which reference is made, 1 gold-miner in every 660 loses his life annually. In 1893 the proportion was as low as 1 in 710. These proportions contrast favorably with the proportions of fatal accidents in the metalliferous mines of Great Britain and Ireland, where, according to the report of Her Majesty's Inspectors of Mines for 1883, 1 person in every 584 employed in and about mines lost his life by accident during the year, and 1 in every 607 during the ten years 1874 to 1883. This is exclusive of coal mines, in respect to which the proportion of fatal accidents is much higher. Dr. Raseri says that in Italy, during the six years 1879 to 1884, 1 miner in 450 lost his life annually by accident.

Gold-mining accidents in Victoria and England.

697. It appears by the following table that, in the twenty years named, 1,609, or about half the gold-mining accidents in Victoria, were caused by the fall of earth or materials ; 585, or 18 per cent., by falling down shafts, &c., and cage accidents ; 408, or 13 per cent., by explosions, principally of blasting charges ; and the balance, or 19 per cent., by timber and truck accidents, machinery in motion, foul air, flooding, and undescribed casualties :—

Causes of gold-mining accidents.

CAUSES OF GOLD-MINING ACCIDENTS, 1874 TO 1893.

Nature of Accident.	Number of Persons.		
	Killed.	Injured.	Total.
Fall of earth or rock underground	409	756	1,165
" " on surface... ..	122	89	211
" materials down shafts, passes, &c.	53	178	231
" " winzes, &c.	2	...	2
Falling down shafts	135	171	306
" " winzes, shoots, &c.	18	91	109
Cage accidents	51	119	170
Truck accidents	7	53	60
Machinery in motion	25	101	126
Explosion of charges of gunpowder	31	164	195
" " guncotton	1	10	11
" " nitro-glycerine compounds... ..	37	89	126
" stored explosives	7	34	41
" boilers	2	6	8
" fire damp	2	25	27
Foul air	12	1	13
Flooding of mines	27	...	27
Undescribed	34	308	342
Total	975	2,195	3,170

698. One miner was killed and two miners were injured through a coal-mining accident in 1893. During the five years 1889-93 eleven persons were injured at coal mines, but only one was killed.

Coal-mining accidents.

Accidents in
factories,
1893.

699. Under the *Factories and Shops Act* 1890 (54 Vict. No. 1091) it is prescribed, under a penalty not exceeding £5 for non-compliance, that notices shall be sent to the Inspector of Factories, and to the certifying medical practitioner for the district, of any accident causing loss of life to a person employed in a factory or work-room, also of any accident whereby a person so employed receives bodily injury, provided it is produced either by machinery moved by steam, water, or other mechanical power, or through a vat, pan, or other structure, filled with hot liquid or molten metal or other substance, or by escape of gas, steam, or metal, and is of such a nature as to prevent the person injured by it from returning to his work in the factory or work-room within forty-eight hours of the occurrence of the accident. The following cases of injury were reported in the last two years :—

ACCIDENTS IN FACTORIES OR WORK-ROOMS, 1892 AND 1893.

Nature of Injury.	Males.		Females.	
	1892.	1893.	1892.	1893.
Death	2	3	...	...
Loss of arm or hand ...	...	4	...	...
Loss of fingers or toes ...	20	10	...	...
Fractures	7	4	...	...
Lacerations, contusions, &c.	32	23	2	5
Total	61	44	2	5

Ill-defined
and un-
specified
causes of
death.

700. In 1893, the year under review, there were no fewer than 996 deaths in Victoria from ill-defined or unspecified causes, or 6 per cent. of the deaths from all causes, as compared with $6\frac{1}{2}$ per cent. in 1892, 7 per cent. in 1891 and 1890, $7\frac{3}{4}$ per cent. in the ten years ended with 1890, and 7 per cent. in the ten years ended with 1880. The great majority of these—viz., 931 in 1893—were returned as from atrophy and debility; whilst 9 were set down to tumours, 18 to dropsy, 1 to abscess, 23 to other ill-defined causes, and in 14 cases the causes of death were altogether unspecified.

Atrophy and
debility in
Victoria.

701. The mortality under the head of atrophy and debility is almost entirely confined to infants and young children—thus, of the 931 deaths set down thereto in 1893, 855 were under 5 years, 778 were under 1 year, and 233 were under 1 month of age. It is probable that a large number of these deaths might have been returned more definitely if medical men had attached to accuracy of record the importance it merits. The following are the numbers of both sexes recorded as having

died from atrophy and debility in each of the last three years ; also the averages for three periods between 1867 and 1890 :—

ANNUAL DEATHS FROM ATROPHY AND DEBILITY, 1867 TO 1893.

Period.		Males.	Females.	Total.
1867-70 (Annual mean)	...	386	345	731
1871-80	..	377	322	699
1881-90	..	557	474	1,031
1891	... ..	554	538	1,092
1892	... ..	510	437	947
1893	... ..	486	445	931

NOTE.—For the number of deaths set down to atrophy and debility in the 24 years ended with 1890, see *Victorian Year-Book*, 1890-91, Vol. I., table following paragraph 690.

702. Notwithstanding the proportions of the sexes of persons at ages likely to be affected by atrophy and debility were about equal, it happened that in every one of the last 27 years, except the year 1890, more males died than females. During the last three years, females died of these complaints in the proportion of about 92 to every 100 males.

Sex of those who died of atrophy, &c.

703. The practice of returning atrophy and debility as causes of death appears to be generally no less frequent in most of the other Australasian Colonies than in Victoria ; but in Queensland for some years past comparatively few deaths were so recorded. The following are the figures for all those colonies during the two years ended with 1892, and the average for the nine years 1882-90:—

Atrophy and debility in Australasian Colonies.

DEATHS FROM ATROPHY AND DEBILITY IN AUSTRALASIAN COLONIES, 1882 TO 1892.

Colony.	Period.	Annual Deaths from Atrophy and Debility.	
		Number.	Proportion Per 10,000 Persons Living.
Victoria	1882 to 1890	1,064	10.74
	1891	1,092	9.52
	1892	947	8.15
New South Wales	1882 to 1890	863	9.03
	1891	870	7.61
	1892	852	7.21
Queensland	1882 to 1890	233	7.85
	1891	64	1.58
	1892	80	1.92
South Australia	1882 to 1890	287	9.29
	1891	265	8.35
	1892	283	8.68

DEATHS FROM ATROPHY AND DEBILITY IN AUSTRALASIAN COLONIES,
1882 TO 1892—*continued.*

Colony.	Period.	Annual Deaths from Atrophy and Debility.	
		Number.	Proportion per 10,000 of Persons Living.
Western Australia ...	1882 to 1890	42	10·93
	1891	44	8·59
	1892	52	9·29
Tasmania ...	1882 to 1890	135	9·91
	1891	152	10·20
	1892	138	9·03
New Zealand ...	1882 to 1890	284	4·99
	1891	269	4·27
	1892	231	3·60

NOTE.—For the number and proportion to population of deaths from atrophy and debility in each Australasian Colony during each of the nine years ended with 1890, see *Victorian Year-Book*, 1890-91, Vol. I., table following paragraph 692.

Causes of death of octogenarians.

704. The number of deaths of persons over 80 years of age, and their exact ages at death, have been already quoted for the year 1893, and the two preceding periods of eleven years.* The following table shows the causes of death of these persons:—

CAUSES OF DEATH OF OCTOGENARIANS, 1871 TO 1893.

Causes of Death.	Year 1893.		Eleven Years ended with 1892.		Eleven Years ended with 1881.	
	Males.	Females.	Males.	Females.	Males.	Females.
Measles ...	...	1	...	...	...	...
Influenza, Coryza, Catarrh ...	4	7	44	44	5	11
Diphtheria ...	...	...	1	...	...	...
Typhoid Fever, &c. ...	...	...	6	3	3	2
Cholera ...	...	...	2	4	6	1
Dysentery and Diarrhœa ...	8	12	109	87	51	36
Splenic Fever ...	...	...	1	...	...	...
Venereal Diseases ...	1	...	4	...	4	...
Erysipelas ...	...	...	11	3	3	7
Hydatids ...	...	...	...	...	1	...
Privation ...	1	...	2	...	3	...
Scurvy ...	...	...	...	...	1	...
Intemperance ...	...	...	...	...	2	1
Rheumatism ...	2	2	12	13	7	4
Gout ...	...	...	6	4	2	...
Cancer ...	9	7	77	57	35	13
Tabes Mesenterica ...	...	...	1	...	...	...
Phthisis ...	3	...	20	4	3	3
Purpura, Hæmorrhagic Diathesis	2	...	2	...	...	...

* See table following paragraph 604 *ante.*

CAUSES OF DEATH OF OCTOGENARIANS, 1871 TO 1893—*continued.*

Causes of Death.	Year 1893.		Eleven Years ended with 1892.		Eleven Years ended with 1881.	
	Males.	Females.	Males.	Females.	Males.	Females.
Anæmia, Chlorosis, Leucocy- thæmia	...	...	2	2	...	...
Diabetes Mellitus ...	...	...	2	2	...	...
Old Age ...	163	115	1,653	1,384	631	538
Brain Diseases, &c. ...	45	35	315	223	136	103
Ear and Nose Diseases ...	...	...	...	3	...	...
Heart Diseases, &c. ...	61	44	360	202	66	46
Lung Diseases, &c. ...	50	33	460	320	183	116
Quinsy ...	...	...	1	...	...	1
Stomach Diseases, &c. ...	12	9	120	86	37	21
Kidney Diseases ...	27	5	129	22	47	1
Genetic Diseases ...	...	3	1	2	...	1
Bone Diseases ...	...	...	4	...	...	...
Carbuncle, Boil ...	1	...	1	1	3	2
Skin Diseases, &c. ...	2	...	2	1	4	2
Accidents ...	10	4	80	52	22	18
Suicide ...	2	1	7	3	4	...
Dropsy ...	...	...	12	15	20	18
Mortification ...	...	1	5	2	9	3
Tumour ...	...	...	5	2	...	3
Abscess, &c. ...	...	...	2	...	1	...
Unspecified Causes ...	...	...	10	6	2	...
Total ...	403	279	3,469	2,547	1,291	951

705. It will be noticed that during the 23 years referred to, no complaint was set down except old age in the case of 47 per cent. of the males and 54 per cent. of the females. Little is to be learnt from such a vague definition, and it is much to be wished that medical men would endeavour to describe the causes of death with more precision. Of the remainder, about one-eighth of the whole died of diseases of the organs of respiration, chiefly pneumonia and bronchitis, and between an eighth and a ninth died of affections of the brain and nerves.

Complaints most fatal to octogenarians, 1871-93.

706. There are 42* general hospitals in Victoria, 9 of which are also benevolent asylums. The total number of patients discharged from these institutions during the year ended 30th June, 1893, was 15,562, and the number of deaths was 1,847. There was thus 1 death to every 8.4 discharges during the year 1893, as against 1 death to every 7.8 discharges in the previous year. The following table gives a list of the various hospitals throughout the colony, also a statement of the number of discharged, the number of deaths which occurred in the year ended

Sickness and death in general hospitals.

* Two additional hospitals, viz., at Omeo and Warragul, are being constructed, and, it is believed, will be opened shortly.

30th June, 1893, and the proportion of deaths to cases in each hospital during that and the previous year:—

SICKNESS AND MORTALITY IN GENERAL HOSPITALS.

Name of Hospital.	Year ended 30th June, 1893.			Percentage of Mortality to Discharges, Year ended 30th June, 1892.
	Number of Patients Discharged.*	Number of Deaths.	Percentage of Mortality to Discharged.	
Alexandra	51	4	7·84	17·14
Amherst	297	27	9·09	9·97
Ararat†	242	31	12·81	12·55
Bairnsdale	104	18	17·31	18·10
Ballarat	1,151	133	11·55	8·37
Beechworth	621	52	8·37	8·62
Belfast (Port Fairy)†	29	3	10·34	20·59
Bendigo	1,334	120	9·00	10·72
Castlemaine	395	38	9·62	14·71
Clunes	81	11	13·58	8·82
Colac	105	12	11·43	10·42
Creswick	179	13	7·26	11·45
Daylesford†	118	23	19·49	26·12
Dunolly	252	32	12·70	12·09
Echuca	289	21	7·27	6·79
Geelong†	534	62	11·61	14·31
Hamilton†	258	32	12·40	11·89
Heathcote	57	6	10·53	10·14
Horsham	148	16	10·81	9·87
Inglewood	366	32	8·74	15·64
Kilmore	120	17	14·17	16·31
Kyneton	369	27	7·32	8·90
Maldon†	47	11	23·40	15·09
Mansfield	98	4	4·08	5·79
Maryborough... ..	319	34	10·66	9·75
Melbourne	3,870	607	15·68	17·53
Melbourne (Alfred)	1,239	150	12·11	11·39
Melbourne (Austin)‡	82	55	67·07	75·82
Melbourne (Homœopathic)	750	60	8·00	8·48
Mildura	45	2	4·44	35·71
Mooroopna	452	45	9·96	8·18
Nhill	140	7	5·00	8·66
Pleasant Creek (Stawell)†	253	25	9·88	16·44
Portland†	17	5	29·41	36·84
Sale	182	24	13·19	10·24
St. Arnaud	250	32	12·80	10·58
Swan Hill	109	11	10·09	6·85
Walhalla	7	...	...	...
Wangaratta	308	14	4·55	10·20
Warracknabeal	89	10	11·24	10·94
Warrnambool†	123	17	13·82	11·56
Wood's Point	82	4	4·88	8·14
Total	15,562	1,847	11·87	12·87

Highest and lowest death rates.

707. In proportion to the cases discharged in 1892-3, the greatest mortality occurred in the Austin (Melbourne),‡ Portland, Maldon,

* Including deaths.

† These institutions are also benevolent asylums.

‡ For incurables.

Daylesford, and Bairnsdale Hospitals; and the lowest in the Mansfield, Mildura, Wangaratta, Wood's Point, Nhill, Creswick, Echuca, Kyneton, and Alexandra Hospitals. It should be borne in mind, however, that the Portland, Maldon, and Daylesford Hospitals are also benevolent asylums.

708. Taking the general hospitals as a whole, the average time patients, discharged in 1893, remained in those institutions was 33 days, but the duration of their stay was found to vary according to the complaint, the period of residence having averaged as much as 174 days in the case of patients afflicted with uræmia, and as little as 12 or 14 days in the case of those suffering from measles or intemperance. In the following table the principal diseases are arranged in order, according to the average number of days the patients suffering from such disease, who were discharged in 1893, were resident in hospital:—

DURATION OF RESIDENCE IN HOSPITALS OF PATIENTS SUFFERING FROM VARIOUS COMPLAINTS, 1893.

Disease.	Average Number of Days.	Disease.	Average Number of Days.
Uræmia	174	Rheumatic Fever	30
Old Age	100	Scarlet Fever	30
Hemiplegia, Brain Paralysis	94	Accidents	29
Diseases of Spinal Cord ...	81	Diseases of Eye	29
Paralysis	75	Puerperal Fever	29
Scrofula, &c.	64	Abscess	27
Apoplexy	56	Diabetes	27
Scurvy	56	Bronchitis	26
Ulcer, Bedsore	50	Diseases of the Generative	
Bone Diseases	48	System (chiefly females)	26
Dropsy	47	Anæmia, Chlorosis, Leuco-	
Atrophy, Debility, and Inani-		cythæmia	25
tion	46	Beri Beri	25
Congenital Defects	41	Laryngitis	25
Typhoid Fever	41	Croup	23
Cancer	40	Diarrhœal Diseases	23
Bright's Disease	38	Tumour	23
Heart Diseases	38	Diseases of Digestive Organs	22
Phthisis	38	Pneumonia	22
Calculus	37	Pyæmia, Septicæmia	20
Disease of Bladder and of		Influenza	19
Prostate	37	Remittent Fever... ..	19
Hydatids	37	Simple Continued Fever ...	19
Asthma	37	Epilepsy	18
Rheumatism	37	Erysipelas	18
Pleurisy	34	General Paralysis of Insane	18
Gout	33	Ague	16
Venereal Diseases	33	Diphtheria	16
Nephritis	32	Whooping Cough	16
Eczema	31	Intemperance	14
Diseases of Parturition ...	30	Measles... ..	12

Proportions
of deaths in
hospitals in
various
countries.

709. The following figures, calculated from numbers given in Dr. Raseri's paper,* show the proportions of deaths to inmates of hospitals in various countries; those for Victoria during the six years ended with 1885 being added:—

PROPORTIONS OF DEATHS TO INMATES OF HOSPITALS IN
VARIOUS COUNTRIES.

						Per cent.
Victoria	...	...	...	1880-85	...	11·85
England and Wales	...	...	...	1884	...	11·11
Austria	...	...	...	1883	...	10·43
Italy	...	...	...	1885	...	10·22
Saxony	...	...	...	1882	...	9·40
Norway	...	...	...	1883	...	9·36
France	...	...	...	1883	...	9·14
Portugal	...	...	...	1884	...	9·02
Hungary	...	...	...	1882	...	8·68
Prussia	...	...	...	1882	...	8·24
German Empire	...	...	...	1882	...	7·18
Sweden	...	...	...	1883	...	6·23
Baden	...	...	...	1882	...	4·86
Bavaria	...	...	...	1882	...	3·86
Württemberg	...	...	...	1882	...	3·49

Deaths in
Victorian
and other
hospitals.

710. The rate of mortality in hospitals would appear by the figures to be higher in Victoria than in any of the other countries named. In the absence of information, it is impossible to say whether the cases treated in the hospitals of this colony may not be of a worse class than those in the other countries, or whether hospitals for special complaints—ophthalmic, maternity, &c., where the mortality would naturally not be so great as in general hospitals—may not be included with the latter in the returns of some of the countries.

Sickness and
deaths in
Women's
Infirmery
Depart-
ment.

711. The patients discharged† from the Infirmery Department of the Women's Hospital numbered 254 during the year 1891-2, and 215 in 1892-3. The deaths in the same institution numbered 11 in the former, and 16 in the latter year. Therefore, 1 patient in 23 who left the institution in 1891-2, and 1 in 13 who left it in 1892-3, came out of it a corpse.

Deaths of
mothers in
Women's
Midwifery
Depart-
ment.

712. In the Midwifery Department of the Women's Hospital, Melbourne, 920 women were confined in 1891-2, and 935 in 1892-3. Eleven died in the former period, and 10 in the latter. Thus, 1 woman in 84 died in 1891-2, and 1 woman in 94 in 1892-3. From the founding of the institution to the end of June, 1893, 17,981 women were accouched therein,‡ of whom 292 died, which is equivalent to 1 death to every 62 confinements.§

* Page 195.

† The discharges referred to in this and the following paragraphs in all cases include deaths.

‡ Including women accouched outside the hospital by midwives connected with the institution.

§ See paragraph 594 *ante*.

713. The infants born alive in the Women's Hospital numbered 873 in the year 1891-2, and 858 during the year 1892-3, and of these 27 in each year died before being taken from the institution.*

Deaths of infants in Women's Hospital.

714. In the Melbourne Hospital for Sick Children the discharges numbered 759, and the deaths 67, in the year 1891-2; there were, moreover, 722 discharges, and 64 deaths, during the year 1892-3. These numbers furnish a proportion of 1 death to every 11 patients in each year.

Sickness and deaths in Children's Hospital.

715. Cases of sickness in benevolent asylums (exclusive of the Melbourne Immigrants' Home) numbered 2,580 in 1891-2, and 1,787 in the year 1892-3; deaths numbered 260 and 200. The deaths were thus to the cases treated in the proportion of 1 to every 10 in 1891-2, and of 1 to 9 in 1892-3.

Sickness and deaths in benevolent asylums.

716. In the Melbourne Immigrants' Home the cases of sickness in the year 1891-2 amounted to 665, and the deaths to 92, or 1 death to every 7 cases of sickness. In the year 1892-3 the cases of sickness in this institution numbered 555, and the deaths 87, or one death to every 6 cases of sickness.

Sickness and deaths in Immigrants' Home.

717. In 1891-2 the cases of sickness in orphan asylums numbered 21, and the deaths 6. In the year ended 30th June, 1893, these numbers were 107 (including 92 cases of measles) and 7 respectively. Thus 1 death occurred to every $3\frac{1}{2}$ cases of sickness in 1891-2, but only 1 to every 15 cases in 1892-3.

Sickness and deaths in orphan asylums.

718. In hospitals for the insane during 1892 the cases discharged numbered 807, and during 1893 they numbered 850. The deaths amounted to 283 at the former period, and 271 at the latter, or an average of 1 death to every 3 cases discharged in both years.

Sickness and deaths in lunatic asylums.

719. In gaols and penal establishments 2,931 cases of sickness occurred in 1892, and 2,134 in 1893. The deaths in the same years were 55 and 51 respectively, exclusive of those by execution. Thus 1 death occurred to every 53 cases of sickness in the former, and 1 in ever 42 cases in the latter year.

Sickness and deaths in gaols.

720. Altogether the number of deaths in penal or charitable institutions during 1892-3 † was 2,657, being in the proportion of 1 to every 5.8 deaths which took place in Victoria during the year. The deaths in such institutions in the ten years ended with 1890 were

Deaths in public institutions.

* See paragraph 594 *ante*.

† The figures relating to hospitals for the insane, industrial and reformatory schools, gaols, and penal establishments are for the year ended 31st December, and those relating to the other institutions are for the year ended 30th June, 1893.

in the proportion of 1 to every 6·4 deaths; and in the four years 1877–80, in that of 1 to every 6 deaths which took place in the whole colony. The following are the names of the institutions and the number of deaths which occurred in each during the year 1892–3:—

DEATHS IN PUBLIC INSTITUTIONS, 1892–3.

					Number of Deaths.
General hospitals	...	...	...	...	1,847
Women's Hospital—					
Infirmity Department	...	...	...	...	16
Midwifery Department	...	...	...	...	37*
Hospital for Sick Children	...	...	...	...	64
Benevolent asylums	...	...	...	...	200
Melbourne Immigrants' Home	...	..	...	...	87
Orphan asylums	...	...	...	...	7
Eye and Ear Hospital	...	...	...	...	3
Royal Victorian Institute for the Blind			...	...	1
Hospitals for the insane	...	...	...	...	271
Female refuges	...	...	...	...	14†
Victorian Infant Asylum	...	...	...	...	5
Industrial and reformatory schools	...	...	...	...	54‡
Gaols (inclusive of Police gaols and Penal establishment)					51
Total ...					2,657

NOTE.—No deaths occurred in 1892-3 in the Deaf and Dumb Institution.

Sickness and infirmity.

721. The total number of persons returned as suffering from infirmity at the date of the census of 1891 was 23,916, viz., 14,675 males and 9,241 females. These numbers furnish proportions of 210 infirm persons in every 10,000 of the population; or of 245 infirm males in every 10,000 males, and 171 infirm females in every 10,000 females.

Two classes of infirmities.

722. The infirmities are of two classes:—(1) Those causing total disablement for the time being, but from which it is probable complete recovery might take place sooner or later; (2) those of a permanent character, but which would not generally prevent the sufferer from engaging in some kind of bread-winning occupation. Besides these, some persons were returned as suffering from ailments of a minor description, which in a few instances have been considered of sufficient importance to be mentioned in the tables, whilst in others they have been entirely disregarded.

Sickness and accidents.

723. The persons included in the first of these classes are those returned as unable to attend to their ordinary occupations by reason of sickness or accident. These numbered as follow:—

		Males.			Females.			Total.
Disabled from sickness	...	7,590	...	5,334	...			12,924
,, accident	...	1,379	...	289	...			1,668
Total		8,969	...	5,623	...			14,592

* Including the deaths of 27 infants born in the institution.

† Eight of this number were infants who were admitted with their mothers.

‡ Including deaths of boarded-out and licensed children.

724. The sick were in the proportion of 113 and those laid up in consequence of accidents were in that of 15 to every 10,000 of the population. The two combined representing those entirely disabled for the time being, but not as a rule permanently affected, were thus in the proportion of 128 to every 10,000 living, or 1 in 78. A similar combination gives a proportion of 150 disabled males in every 10,000 males living, or 1 in 67; of 104 disabled females in every 10,000 females living, or 1 in 96.

Proportion
of disabled
persons.

725. It will be easily realized that the community sustains considerable loss as well as inconvenience in consequence of some portion of its component parts being always laid up on account of illness or bodily injury. Of those so affected, the children are obliged to discontinue their studies, the men their work or business, and the women their household duties as long as the disablement lasts. Taking the sick and those suffering from accidents together, there were on the census day 14,592 persons—viz., 8,969 males and 5,623 females—in a disabled condition. Supposing the census day to have been an average one as regards the amount of infirmity prevailing, there would obviously in one year be an amount of work lost from this cause equal to that of 1 person for 14,592 years, or of 1 male for 8,969 years, and of 1 female for 5,623 years. Or putting it in other words, there would, if Sundays be included, be 5,326,080 days' work lost on account of illness in the year, viz., 3,273,685 by males, and 2,052,395 by females; or, if Sundays be not included, there would be 4,567,296 days' work lost, viz., 2,807,297 by males and 1,759,999 by females. This is altogether irrespective of the loss occasioned by illnesses of a slight or partial character, not serious enough to cause work to be altogether discontinued, which according to instructions were not to be returned, or of the loss to others occasioned by attendance on sick persons, or by reason of deaf-muteism, blindness, lunacy, &c. A consideration of these figures will show that, irrespective of the distress, destitution, and mental suffering occurring amongst families by reason of the deaths of their members, the outbreak of every epidemic disease which visits a country must seriously affect its material wealth and prosperity, and therefore that, on economic as well as on moral grounds, those who promote and enforce sanitary laws and regulations are deserving of high commendation and support.

Time lost
through
disable-
ment.

726. According to the figures, the average number of days' disabling infirmity in the course of one year experienced by each person in the community is 4.67, or 5.47 days by each male and 3.79 days by each female. If working days only be considered, each person on the

Average
period
of disable-
ment.

average loses by this 4 such days, each male losing 4.69 and each female 3.25 such days.

Sickness and accidents in Australasian Colonies.

727. All the Australasian Colonies took advantage of the taking of the census to obtain returns of sickness and accidents. According to the following figures, the proportion of those disabled from these causes was higher in Victoria than in any other colony:—

SICKNESS AND ACCIDENT IN AUSTRALASIAN COLONIES, 1891.

Colony.	Persons Disabled by Sickness or Accident.	
	Number.	Persons Living to each Disabled Person.
1. Victoria	14,592	78
2. South Australia	3,938	81
3. New South Wales	11,578	98
4. Queensland	3,746	105
5. Tasmania	1,321	111
6. New Zealand	5,076	123
7. Western Australia	304	164
Total	40,555	94

Defective returns in some colonies.

728. With reference to the high position of Victoria relatively to several of the other colonies in regard not only to sickness but to most of the other infirmities respecting which information was obtained, it may be remarked that, whilst Victoria has made inquiries on these subjects at the last four censuses, some of the other colonies of the group made such inquiries for the first time in 1891. For obvious reasons, a new inquiry is not likely to be so fully or so correctly responded to as one to which both the census collectors and the public have become accustomed, and a first attempt is likely to result in defective information and partial failure, as did the first attempt made in Victoria to obtain particulars of sickness and infirmity 30 years prior to the census which forms the subject of this report, viz., in 1861. It will be readily understood, in regard to such a return as that under notice, that the more accurate and perfect the statistics, the worse position the country to which they relate appears to be in, and the more unfavorably will it seem to compare with other countries in which the returns are of a less complete character.

Leprosy.

729. Leprosy is included amongst the disabling infirmities, as, although a sufferer from that complaint may not be altogether disabled physically, the necessity of keeping him apart from the remainder of the population prevents him from rendering any service to the community

at large. Only three lepers were returned at the census. These were all Chinese, and were resident at the Leper Station at Point Nepean. Since the census was taken one has died, whilst another man, a European, has been found to be suffering from leprosy, and has been sent to the Nepean Station, where, however, he lives apart from the Chinese lepers. There are thus still three lepers, all male adults, known to exist in the colony.

730. Lepers are present in all the Australasian Colonies except Tasmania. The existence of 36 has been ascertained, viz., 3 in Victoria (as already stated), 15 in New South Wales, 10 in Queensland, 3 in South Australia, 1 in Western Australia, and 4 in New Zealand; all these are males. The numbers of different races in each colony are as follow :—

Lepers in Australasian Colonies.

LEPERS IN AUSTRALASIAN COLONIES, 1891.—ALL MALES.

Colony.	Race.							Total.
	European.	Australian Aboriginal.	Maori.	South Sea Islands.	Chinese.	Singhalese.	Javanese.	
Victoria	1	...	...	...	2	...	...	3
New South Wales ...	5	...	...	...	9	...	1	15
Queensland	2	1	...	3	3	1	...	10
South Australia* ...	...	...	...	...	3	...	...	3
Western Australia...	...	...	...	...	1	...	...	1
New Zealand ... ..	...	...	4	...	...	...	...	4
Total	8	1	4	3	18	1	1	36

731. It will be observed that exactly half the lepers are of Chinese and nearly a fourth of European race. It is believed that in all the Colonies an endeavour is made to prevent the lepers from coming in contact with the remainder of the population, but it is stated that in Queensland 2 of the lepers mentioned, viz., 1 white and 1 South Sea Islander, had escaped from the depôt at Friday Island, and are still at large. It was formerly believed that the leprosy with which the Maoris were afflicted was a native malady (*ngere-ngere*), but there now seems to be no doubt that it was true leprosy.†

Proportion of Chinese and European lepers.

732. The second class of infirmities embraces defects or injuries which are generally permanent, but which often do not disable the

The partially disabled.

* All in the Northern Territory.

† There is a credible tradition that this complaint (also called *puhipuhi* and *tuwhenna*) was introduced into New Zealand by the marooning of a leper (probably a whaler) at or near Hauraki. Dr. A. Ginders, in a report dated 4th July, 1890, expresses his firm conviction that the disease is true leprosy.

sufferers from following some description of labour, and do not always prevent them from earning their own livelihood. These, with the number of persons affected, were as follows :—

				Males.	Females.	Total.
Sufferers from Paralysis	...	...	...	650	447	1,097
„ „ Epilepsy	...	...	...	203	217	420
„ „ Deaf-muteism	...	...	...	204	160	364
„ „ Blindness	...	...	...	612	383	995
„ „ Eye affections	...	...	...	94	90	184
„ „ Lunacy	...	...	...	2,077	1,693	3,770
„ „ Idiocy and Imbecility	...	...	...	214	141	355
„ „ Lameness, Mutilation, Deformity, &c.	...	...	...	1,652	487	2,139
				5,706	3,618	9,324
	Total	...	...	

Paralysis.

733. Some of the paralyzed persons were, no doubt, entirely disabled, and therefore might, with propriety, have been placed with the sick in the first class had it been possible to separate them from the partially paralyzed, of whom a considerable number were included in the returns. The number set down as paralyzed, embracing those entirely as well as those only partially affected, furnishes a proportion of 9·62 paralyzed persons to every 10,000 of the population, or 1 in 1,039; or of 10·86 paralyzed males to every 10,000 males, or 1 in 921; and of 8·25 paralyzed females to every 10,000 females, or 1 in 1,213.

Paralysis in Australasian Colonies.

734. A return of the number of paralyzed persons was obtained in three of the Australasian Colonies besides Victoria. The following are the proportions of such persons to the respective populations of each of those colonies :—

PARALYSIS IN AUSTRALASIAN COLONIES, 1891.

1. Victoria* had 1 paralyzed person in every	...	1,039 persons
2. South Australia	„ „	1,068 „
3. New South Wales	„ „	1,322 „
4. New Zealand	„ „	1,339 „

Epilepsy.

735. Epileptic persons were in the proportion of 3·68 per 10,000 of the population of Victoria, of 3·39 per 10,000 males, and of 4·00 per 10,000 females—or, in other words, 1 person in every 2,715, or 1 male in every 2,948, and 1 female in every 2,497, was subject to attacks of epilepsy.

Epilepsy in Australasian Colonies.

736. Statistics of epilepsy were obtained in all the colonies of the Australasian group except Queensland. The following are the proportions of epileptic subjects to the total population of each colony, the

* See paragraph 728 *ante*.

colonies being arranged in order according to the amount of epilepsy said to be prevailing in each :—

EPILEPSY IN AUSTRALASIAN COLONIES, 1891.

1. South Australia	had 1 epileptic subject in every	2,322 persons.
2. New Zealand	” ” ”	2,701 ”
3. Victoria*	” ” ”	2,715 ”
4. Western Australia	” ” ”	2,766 ”
5. New South Wales	” ” ”	3,315 ”
6. Tasmania	” ” ”	3,964 ”

737. The deaf and dumb were in the proportion of 3·19 per 10,000 persons living—of 3·41 deaf and dumb males per 10,000 males, and of 2·95 deaf and dumb females per 10,000 females. These proportions, stated in other words, are 1 deaf-mute in 3,133 of the total population or 1 in 2,933 of the males, and 1 in 3,387 of the females. Deaf muteism.

738. In proportion to population deaf-mutes appear to have been most common in South Australia, and more common than in Victoria—not only in that colony but in Queensland, Tasmania, and New South Wales. The following are the proportions:— Deaf-muteism in Australasian Colonies.

DEAF-MUTEISM IN AUSTRALASIAN COLONIES, 1891.

1. South Australia	had 1 deaf-mute in every	... 1,369 persons.
2. Queensland	” ”	... 2,557 ”
3. Tasmania	” ”	... 2,716 ”
4. New South Wales	” ”	... 2,867 ”
5. Victoria*	” ”	... 3,133 ”
6. New Zealand	” ”	... 3,775 ”
7. Western Australia	” ”	... 4,526 ”

739. As compared with most other countries, the proportion of deaf-muteism existing in all the Australasian Colonies is very small. This is shown by the figures in the following list, which has been compiled from the latest and best authorities available:— Deaf-muteism in various countries.

DEAF-MUTEISM IN VARIOUS COUNTRIES.

	Deaf-mutes per 10,000 Living.		Deaf-mutes per 10,000 Living.
Switzerland	... 24·52	Scotland (1891)	... 5·28
Grenada, West Indies (1891)	16·54	United Kingdom (1891)	5·22
Austria	... 13·07	England (1891)	... 4·89
Hungary	... 12·63	Spain	... 4·59
Sweden	... 10·23	Belgium	... 4·45
Prussia	... 10·19	Queensland (1891)	... 3·91
Finland	... 10·18	Australia (1891)	... 3·80
Ireland (1891)	... 9·45	Tasmania (1891)	... 3·68
Germany (exclusive of Prussia)	9·31	Cape of Good Hope (1891)	3·67
Norway	... 8·64	Australasia (1891)	... 3·61
Canada	... 8·05	New South Wales (1891)	3·49
Portugal	... 7·47	Holland	... 3·35
South Australia (1891)	... 7·30	Victoria (1891)	... 3·19
United States (1880)	... 6·73	New Zealand (1891)	... 2·65
Greece	... 6·46	Sierra Leone (1891)	... 2·54
France	... 6·26	Ceylon (1891)	... 2·31
Denmark	... 6·20	Western Australia (1891)	2·21
Italy	... 5·37		

* See paragraph 728 ante.

Blindness.

740. Blind persons in Victoria were in the proportion of 8·72 per 10,000 persons living; blind males in that of 10·23 to every 10,000 males; blind females in that of 7·07 to every 10,000 females. There was thus 1 blind person in every 1,146 of mixed sexes, or 1 blind male in every 978 males, and 1 blind female in every 1,415 females.*

Blindness in Australasian Colonies.

741. The colony which, according to the following figures, contained the largest proportion of blind persons was Tasmania, Western Australia standing second, and Victoria third. In New Zealand the proportion of blind persons to the total population appears to be very low indeed:—

BLINDNESS IN AUSTRALASIAN COLONIES, 1891.

1. Tasmania had 1 blind person in every	...	889 persons.
2. Western Australia	”	922 ”
3. Victoria†	”	1,146 ”
4. South Australia	”	1,297 ”
5. New South Wales	”	1,517 ”
6. Queensland	”	1,978 ”
7. New Zealand	”	2,287 ”

Blindness various countries.

742. In regard to the proportion of blindness to the population, New Zealand, Queensland, and New South Wales stand low, and Tasmania and Western Australia stand high as compared with many other countries, whilst Victoria and South Australia occupy a middle position. The following is the latest information available respecting the amount of blindness prevailing in a number of countries:—

BLINDNESS IN VARIOUS COUNTRIES.

	Blind Persons per 10,000 Living.		Blind Persons per 10,000 Living.
Portugal	21·90	Prussia	8·31
Finland	21·15	Belgium	8·11
Sierra Leone	16·04	England (1891)	8·09
Spain	14·79	Sweden	8·06
Norway	13·57	Germany (exclusive of Prussia)	7·93
Hungary	13·24	Denmark	7·86
Ireland (1891)	11·35	Italy	7·63
Tasmania	11·25	Switzerland	7·61
Grenada, West Indies (1891)	10·90	Australia (1891)	7·38
Western Australia	10·85	Australasia	7·04
Cape of Good Hope	10·67	Scotland	6·95
United States (1880)	9·73	New South Wales (1891)	6·59
Austria	9·07	Canada	6·19
Greece	8·96	Queensland (1891)	5·05
Victoria (1891)	8·72	Holland	4·45
South Australia (1891)	8·71	New Zealand (1891)	4·37
United Kingdom	8·38	Ceylon (1891)	3·37
France	8·37		

Lunacy.

743. The lunatics returned at the census numbered 3,770, viz., 2,077 males and 1,693 females. All of these—except 100, viz., 78

* In addition to the returns of the blind, 184 persons were stated to be suffering from eye affections. No instruction was given to obtain this information, and it was no doubt incomplete.

† See paragraph 728 *ante*.

males and 22 females—were detained in the Government lunatic asylums. Lunatics were in the proportion of 33·06 per 10,000 of the population, viz., 34·71 male lunatics per 10,000 males living, and 31·24 female lunatics per 10,000 females living. Thus 1 person in every 302, or 1 male in every 288, and 1 female in every 320 was a lunatic.

744. The census gave a return of the number of lunatics in all the Australasian Colonies except Queensland. The proportion to the population appears to have been highest in Victoria and next highest in New Zealand, whilst the proportions were lowest in Western Australia and Tasmania:—

Lunacy in
Austral-
asian
Colonies.

LUNACY IN AUSTRALASIAN COLONIES, 1891.

1. Victoria* had 1 lunatic in every	...	...	302 persons.
2. New Zealand	”	”	349 ”
3. New South Wales	”	”	359 ”
4. South Australia	”	”	376 ”
5. Tasmania	”	”	383 ”
6. Western Australia	”	”	386 ”

745. The persons returned as idiots or imbeciles in Victoria numbered 355, viz., 214 males and 141 females. Of these, 98, viz., 66 males and 32 females, were in the Kew Idiot Asylum. Idiots and imbeciles were in the proportion of 3·11 per 10,000 of the population; 3·58 such males per 10,000 males, 2·60 such females per 10,000 females. These proportions may be otherwise stated as 1 idiot or imbecile person in every 3,212 persons, 1 such male in every 2,796 males, 1 such female in every 3,844 females.

Idiots and
imbeciles.

746. Idiots and imbeciles, like lunatics, were returned in all the Australasian Colonies except Queensland. They seem to have borne the highest proportion to the population in Tasmania, and next in Victoria, the proportions in New Zealand and Western Australia—especially the latter—being very low indeed. The following are the proportions in each of the colonies in which the return was obtained:—

Idiocy and
imbecility
in Austral-
asian
Colonies.

IDIOCY AND IMBECILITY IN THE AUSTRALASIAN COLONIES, 1891.

1. Tasmania had 1 idiot or imbecile person in every	3,188 persons.
2. Victoria*	3,212 ”
3. South Australia	3,815 ”
4. New South Wales	3,930 ”
5. New Zealand	4,896 ”
6. Western Australia	7,112 ”

747. Lunacy combined with idiocy and imbecility may be designated insanity. If the combination be made the sufferers in Victoria

Insanity.

* See paragraph 728 ante.

would number 4,125, viz., 2,291 males and 1,834 females, the proportions being 36·17 insane persons per 10,000 of both sexes, or 1 in 276; 38·29 insane males per 10,000 males, or 1 in 261; 33·84 insane females per 10,000 females, or 1 in 296.

Insanity in
Austral-
asian
Colonies.

748. The idiots and imbeciles being but few in number as compared with the lunatics, the different colonies stand in the same order in reference to the combination of the two as they do in reference to the lunatics when dealt with singly, except in the case of South Australia and Tasmania, which change places. The following are the figures:—

INSANITY IN THE AUSTRALASIAN COLONIES, 1891.

1. Victoria* had 1 lunatic or idiot in every	...	276 persons.
2. New Zealand	”	325 ”
3. New South Wales	”	329 ”
4. Tasmania	”	341 ”
5. South Australia	”	342 ”
6. Western Australia	”	366 ”

Insanity in
various
countries.

749. By the following figures, which have been derived, where possible, from official sources, it would appear that insanity (embracing lunacy, idiocy, and imbecility) is more prevalent in Victoria than in any of the countries named except Ireland and Scotland. Too much reliance, however, must not be placed upon the figures, for it is probable that in some of the countries named only such insane persons as are confined in asylums are returned, whilst those boarded out, or living at large, or with friends—which would embrace the major portion of the idiots and imbeciles—are altogether ignored:—

INSANITY IN VARIOUS COUNTRIES.

	Insane Persons per 10,000 Living.		Insane Persons per 10,000 Living.
Ireland (1891)	45·04	Grenada, West Indies (1891)	27·81
Scotland	38·43	Western Australia	27·32
Victoria	36·17	France (1881)	25·10
United Kingdom (1891)	35·52	Sweden, Norway, and Den- mark (1885)	20·59
Germany (1880)	33·90	Austria (1881)	20·09
United States (1880)	33·67	Italy (1871)	16·45
England (1891)	32·58	Russia	11·08
Sierra Leone (1891)	31·13	Switzerland (1880)	10·89
Scotland (1881)	31·09	Holland and Belgium (1886)	10·09
New Zealand (1891)	30·73	Argentine Republic	9·50
New South Wales (1891)	30·38	Ceylon (1891)	9·33
Tasmania	29·25	Spain and Portugal (1879)	6·10
South Australia	29·21		
Canada	28·00†		

Lameness,
mutilation,
deformity,
&c.

750. The census under review was the first at which an inquiry was made as to the number of crippled, mutilated, or deformed persons.

* See paragraph 728 *ante*.

† Exclusive of idiots and imbeciles.

in Victoria. Some particulars respecting such persons were voluntarily given in 1871 and 1881, but, as may be supposed, the numbers set down on these occasions fell very short of those actually existing. The following is the return obtained in 1891 :—

LAMENESS, MUTILATION, DEFORMITY, ETC.

Nature of Affliction.	Males.	Females.	Total.
Lost an arm	86	12	98
„ both arms	2	...	2
„ „ and one leg	1	1	2
„ use of an arm	3	4	7
„ „ and both feet	1	...	1
„ a hand	61	4	65
„ use of a hand	2	1	3
„ a leg	146	25	171
„ „ and two fingers	1	...	1
„ use of a leg	9	2	11
„ a foot	43	5	48
„ limbs	183	37	220
„ use of limbs	1	3	4
„ an eye	887	256	1,143
„ „ and deaf	2	...	2
„ „ deaf, and a cripple	1	...	1
„ „ and fingers	6	...	6
„ „ and injury to leg	2	...	2
„ „ and lame	1	...	1
„ „ and nearly blind	1	...	1
„ „ and rheumatic	1	...	1
Lame	117	83	200
„ and deaf ... ..	...	1	1
„ and nearly blind ... ..	...	1	1
Injured knee	3	2	5
Bad leg	1	1	2
Cripple	61	34	95
„ and infirm ... ..	...	1	1
Contracted sinews	1	...	1
Deformed back	4	...	4
„ foot	5	1	6
„ hip	1	...	1
„ leg	1	...	1
„ eyes	1	...	1
„ undefined	14	8	22
Born with only one arm ... ..	...	1	1
„ „ hand	1	1	2
Cleft palate ... ..	...	1	1
Curvature of spine	2	2	4
Total	1,652	487	2,139

751. The total number of injured and deformed persons, as given in the table, was in the proportion of 18·76 to every 10,000 of the population, or 1 in 533; the proportion of males so afflicted was 27·61

Proportions of injured and deformed persons.

per 10,000 males living, or 1 in 362; and the proportion of females so afflicted was 8·99 per 10,000 females living, or 1 in 1,113.

Minor injuries.

752. Besides the maimed and deformed persons to whom reference is made in the table, a number were returned who had received minor injuries or who were only slightly deformed. Amongst these, who were not considered sufficiently important to be tabulated, there were 115 males and 17 females who had lost fingers, and 12 males who had lost toes.

Lameness, mutilation, &c., in Australasian Colonies.

753. For the first time, in pursuance of a suggestion made by the Government Statist of Victoria in his Report upon the Census of 1881,* all the Australasian Colonies, except Queensland, obtained returns of lameness, mutilation, and deformity in 1891. Comparing the numbers in the different colonies with their respective populations, Victoria, according to the following figures, occupied the lowest position but one, the highest place being occupied by Tasmania, and the lowest by New Zealand :—

LAMENESS, MUTILATION, AND DEFORMITY IN AUSTRALASIAN COLONIES, 1891.

1. Tasmania	had 1 crippled, mutilated, or deformed person in every 104 persons.
2. Western Australia	„ „ „ „ 178 „
3. New South Wales	„ „ „ „ 312 „
4. South Australia	„ „ „ „ 413 „
5. Victoria	„ „ „ „ 533 „
6. New Zealand	„ „ „ „ 640 „

NOTE.—For further information respecting the sickness and infirmity prevailing see General Report on the Census of Victoria, 1891, pages 141 to 171, by H. H. Hayter, C.M.G., Government Statist, 4to., Brain, Melbourne, 1893.

Medical men in various countries.

754. As bearing upon the rate of sickness, as also upon that of the mortality, it is important to consider whether the number of medical men is sufficient to minister to the health of the population. In 1891 there were in Victoria 835 legally qualified medical practitioners, which number gives a proportion of 1 to every 1,366 persons, or to every 105 square miles. The first of these proportions compares most favorably with than in other countries, the only one known to have a higher proportion being Switzerland. In regard to the second proportion, in consequence of Victoria being much more thinly peopled than any of the countries of the old world, it is naturally low; lower, in fact, than in any other countries respecting which the information is at hand, except Sweden, Norway, and Russia. These results are shown in the following table, in which the countries are arranged in order according

* See that Report, paragraphs 530 and 540.

to the proportion of medical men to the population and to the area of each country :—

MEDICAL MEN IN PROPORTION TO POPULATION AND AREA IN VARIOUS COUNTRIES.

Countries.	Year.	Medical Men per 100,000 Persons Living.	Countries.	Square Miles to a Medical Man.
Switzerland ...	1880	75	England and Wales	3·9
Victoria ...	1891	73	Belgium ...	4·7
Italy ...	1885	60	Italy ...	6·2
England and Wales	1881	58	Holland ...	6·9
Scotland ...	1881	50	Switzerland ...	7·3
Ireland ...	1881	48	Ireland ...	13·2
Holland ...	1884	43	France ...	13·9
Belgium ...	1884	42	Germany ...	15·1
France ...	1883	39	Austria ...	15·8
Germany ...	1876	32	Scotland ...	15·9
Austria ...	1884	32	Hungary ..	33·6
Norway ...	1882	32	Spain ...	37·1
Spain ...	1877	31	Portugal ...	43·4
Hungary ...	1876	24	Victoria ...	105·3
Portugal ...	1880	18	Russia in Europe ...	148·4
Russia in Europe ...	1882	16	Norway ...	205·0
Sweden ...	1883	13	Sweden ...	294·9

NOTE.—The figures, except those relating to Victoria, have been taken (with some corrections) from a table given by Dr. Raseri. The area per medical man is there stated in square kilometres, which have been converted into square miles on the assumption that one of the former is equal to 386 of one of the latter.

755. The following are the results of meteorological observations taken at different stations throughout the colony during 1893. These places are arranged in the table in the order of their altitude above the level of the sea. The last three are situated in the interior, but the others are on the sea-board. The times at which the observations for mean temperature and mean atmospheric pressure are obtained differ at the various stations ; but a correction is applied, in order to make the results equivalent to those which would be derived from hourly observations taken throughout the day and night :—

Meteorological observations, 1893.

METEOROLOGICAL OBSERVATIONS AT VARIOUS STATIONS, 1893.

Stations.	Height above Sea-level.	Temperature in the Shade.		
		Max.	Min.	Mean.
	Feet.	°	°	°
Portland ...	37·0	98·0	32·0	55·9
Gabo Island ...	50·0	90·0	42·0	57·5
Melbourne ...	91·3	105·5	31·0	57·9
Cape Otway ...	270·0	103·0	36·0	55·7
Wilson's Promontory ...	300·0	90·0	36·0	55·7
Echuca ...	314·0	105·0	29·0	61·1
Bendigo ...	701·0	105·5	29·0	58·8
Mount Pleasant (Ballarat)	1,636·0	101·0	33·0	53·4

METEOROLOGICAL OBSERVATIONS AT VARIOUS STATIONS, 1893—
continued.

Stations.	Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Amount of Cloud.
	Inches.	No.	Inches.	0 — 1.	0 — 10.
Portland	29·940	180	36·74	0·79	...
Gabo Island	29·838	157	51·40	0·88	...
Melbourne	29·882	140	26·81	0·74	6·0
Cape Otway	29·624	181	33·88	0·84	...
Wilson's Promontory ...	29·586	150	37·27	0·79	...
Echuca	29·589	75	15·54	...	...
Bendigo	29·244	106	21·09	...	...
Mount Pleasant (Ballarat)	28·390	170	32·07	0·81	...

Meteorology
in Mel-
bourne,
1864 to
1893.

756. The following are the results for Melbourne in each of the thirty years ended with 1893 :—

METEOROLOGICAL OBSERVATIONS AT MELBOURNE—RETURN
FOR THIRTY YEARS.

(Observatory 91·3 feet above the Sea-level.)

Year.	Temperature in the Shade.			Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Mean Amount of Cloud.
	Max.	Min.	Mean.					
	°	°	°	inches.	No.	inches.	0 — 1.	0 — 10.
1864	96·6	30·5	57·1	29·94	144	27·40	·72	6·1
1865	103·4	30·9	56·5	29·94	119	15·94	·68	5·6
1866	108·2	28·0	57·8	29·95	107	22·41	·70	5·5
1867	108·4	29·7	57·7	29·92	133	25·79	·72	5·7
1868	110·0	27·4	57·1	29·98	120	18·27	·70	5·7
1869	108·4	27·0	57·2	29·94	129	24·59	·71	6·0
1870	109·0	29·6	57·4	29·93	129	33·76	·74	5·8
1871	106·0	32·1	57·7	29·93	125	30·17	·74	5·9
1872	103·3	32·5	57·6	29·92	136	32·52	·74	6·4
1873	102·4	30·2	58·0	29·94	134	25·61	·72	6·0
1874	102·7	29·3	56·6	29·93	134	28·10	·72	6·1
1875	110·4	31·1	56·6	29·89	158	32·87	·72	6·2
1876	110·7	29·0	57·0	29·93	134	24·04	·70	5·8
1877	100·7	31·0	56·7	29·99	124	24·10	·70	5·8
1878	103·4	31·1	57·4	29·90	116	25·36	·71	6·0
1879	106·0	30·5	56·8	29·92	127	19·28	·71	5·8
1880	106·5	29·0	57·8	29·92	147	28·48	·72	6·0
1881	99·9	31·9	57·1	29·97	134	24·08	·68	5·9
1882	110·5	31·5	57·4	29·90	131	22·39	·68	5·6
1883	104·9	31·7	58·0	29·92	130	23·71	·69	5·9
1884	100·7	29·9	56·7	29·94	128	25·85	·71	6·2
1885	101·6	29·9	57·1	30·00	123	26·94	·71	6·3
1886	104·1	28·1	57·1	29·96	128	24·00	·71	6·0
1887	104·9	33·0	58·1	29·94	153	32·39	·74	6·1
1888	104·0	28·3	57·5	29·99	123	19·42	·71	5·5
1889	99·8	31·3	58·5	29·94	125	27·14	·71	5·8
1890	103·4	29·0	58·7	29·92	140	24·24	·72	6·2
1891	103·0	33·9	57·6	29·98	126	26·73	·73	5·8
1892	104·0	31·0	57·4	29·92	124	24·96	·74	6·1
1893	105·5	31·0	57·9	29·88	140	26·81	·74	6·0
Means	104·7	30·3	57·4	29·94	131	25·58	·71	5·9

757. It will be noticed that in 1893, according to the observations taken at the Melbourne Observatory, the mean temperature and the mean atmospheric pressure differed only by a fraction from similar means extending over the 30 years to which the table relates; that whilst rainy days in 1893 were 9 above the average, the amount of rain which fell was an inch and a quarter above the average, and the mean relative humidity and mean amount of cloud during the year were both very slightly above the average.

Observations in 1893 compared with means.

758. Comparing the meteorological observations made in 1893 with those in the previous 29 years, it is found that the maximum temperature was exceeded in 11, the minimum temperature in 10, and the mean temperature in 5 of those years; that the mean atmospheric pressure was exceeded in all the other 29 years; and, moreover, that whilst there were more rainy days only in 4, the amount of rainfall was greater in 10 of those years.

Observations in 1893 and former years compared.

759. The mean rainfall in Melbourne (25.58 inches) corresponds approximately with that of Ventnor in England, and Perth in Western Australia, Goulburn in New South Wales, and Toulouse in France. It is somewhat above that in London, Paris, or Berlin, is 2 inches above that in Hobart, is 4½ inches above that in Adelaide, but is little more than half as much as that in Sydney or Brisbane. The following is the average rainfall in some of the principal Australasian towns and in a few British and foreign towns:—

Mean rainfall in Melbourne and elsewhere.

AVERAGE RAINFALL IN PRINCIPAL TOWNS.

AUSTRALASIAN TOWNS.

Name of City or Town.	Days' Rain.	Rainfall.	Name of City or Town.	Days' Rain.	Rainfall.
		Inches.			Inches.
Brisbane ...	139	49.37	Melbourne ...	131	25.58
Sydney ...	147	49.17	Perth ...	...	25.00
Newcastle ...	113	46.98	Bathurst ...	73	23.62
Auckland ...	168	38.29	Hobart ...	141	23.46
Orange ...	104	37.71	Warrnambool ...	130	23.12
Dunedin ...	144	35.90	Wagga Wagga ...	77	22.73
Wellington ...	170	35.68	Bendigo ...	108	21.87
Portland ...	183	33.00	Adelaide ...	120	21.09
Belfast ...	161	28.43	Geelong ...	92	20.99
Albury ...	80	28.36	Echuca ...	76	20.73
Ballarat ...	132	27.22	Stawell ...	100	20.62
Goulburn ...	84	26.13	Deniliquin ...	64	17.06
Castlemaine ...	122	25.65	Bourke ...	43	16.15

AVERAGE RAINFALL IN PRINCIPAL TOWNS—*continued.*
EXTRA-AUSTRALASIAN TOWNS.

Name of City or Town.	Rainfall.	Name of City or Town.	Rainfall.
	Inches.		Inches.
Bombay	75	Geneva	32
Lake District of Wales ...	75	Rome	31
New York	47	Dublin	30
Boston	45	Brussels	29
Florence	41	Ventnor (England) ...	25½
Washington	41	Toulouse	24¾
Cork	40	Berlin	24
Naples	39	London	24
Plymouth	39	Paris	23
Milan	38	Marseilles	19
Liverpool	37	Madrid	9
Manchester	33		

NOTE.—The average in this table, which in most cases refer to a long series of years, have been derived, for all the towns except Melbourne, Auckland, Dunedin, Wellington, and Ventnor, from a work entitled *Results of Rain, River, and Evaporation Observations made in New South Wales*, by H. C. Russell, C.M.G., Government Astronomer of that colony: Potter, Sydney, 1890.

Meteorology
elsewhere
treated on.

760. An extended account of the meteorology and climate of Victoria will be found in the *Victorian Year-Book*, 1874, paragraphs 54 to 95.