

PART V.—VITAL STATISTICS.

Registration system for births, deaths, and marriages.

442. In pursuance of the provisions of Act 28 Vict. No. 268, very complete records are kept of all births, deaths, and marriages which are known to occur in Victoria. The births and deaths are recorded by deputy registrars, and the marriages by registrars of marriages or clergymen throughout the colony. The birth and death registrations are made in duplicate, and the marriage registrations in triplicate, one copy being forwarded to the Registrar-General, and one retained by the deputy registrar, lay registrar, or officiating clergyman, as the case may be. The third copy of the marriage register is given to the parties married.

Time of registration dealt with in compiling statistics.

443. It is found convenient to deal with the records according to the periods in which the births, deaths, and marriages are registered, rather than those in which they occur. And—since the registration of a death should in all cases precede burial, and the registration of a marriage is simultaneous with the marriage itself—the registrations during any period, in the former case closely, and in the latter case entirely, agree with the actual transactions occurring therein. In the case of births, however, there is a wider margin, since the legal limit of registration extends to two months, and may in special cases extend to twelve months after the occurrence, the effect of which is, not so much that the numbers differ, since the births in one period may be expected to coincide approximately with those in another of similar duration, but that, in view of the length of time over which the registration is permitted to extend, and the natural tendency of some persons to postpone whatever is not absolutely necessary to be done on a particular day, a certain number of births escape registration altogether.

Marriages, 1880.

444. The marriages celebrated in Victoria during 1880 numbered 5,286, as against 4,986 in the previous year. The excess in favor of 1880 was thus 300.

Marriages, 1880 and former years.

445. More marriages took place in 1880 than in any previous year. They, however, exceeded the numbers in 1877 and 1878 by about 200 only. The three years named are the only ones in which more than 5,000 marriages have been solemnized in Victoria.*

Marriage rate.

446. The number of marriages compared with the total population is generally called the marriage rate. This in Victoria has for years past been declining, and whilst in 1861 and 1862 it was as high as 8

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

per 1,000 of both sexes and all ages, and from 1863 to 1865 it was between 7 and 8, only once since 1865 has it reached as high as 7 per 1,000. In 1880 it was 6·22 per 1,000, which, although a somewhat higher rate than in 1879, and about equal to that in 1876 and 1878, was lower than in any previous year since the third from that in which the colony was founded. The following table gives the number of marriages and number of persons married per 1,000 of the population during each of the twenty-one years ended with 1880 :—

ANNUAL MARRIAGE RATE, 1860 TO 1880.

Year.	Per 1,000 of the Mean Population.	
	Number of Marriages.	Number of Persons Married.
1860	8·15	16·30
1861	8·21	16·42
1862	8·26	16·52
1863	7·51	15·02
1864	7·77	15·54
1865	7·36	14·72
1866	6·76	13·52
1867	6·97	13·94
1868	7·08	14·16
1869	6·89	13·78
1870	6·63	13·26
1871	6·37	12·74
1872	6·36	12·72
1873	6·50	13·00
1874	6·33	12·66
1875	6·33	12·66
1876	6·21	12·42
1877	6·31	12·62
1878	6·20	12·40
1879	5·98	11·96
1880	6·22	12·44
Average of twenty-one years...	6·77	13·54

447. It should be pointed out that the system of calculating marriage rates by finding the proportion that the marriages bear to the whole population—although it is followed in all countries which compile vital statistics—is a reliable guide whereby to estimate the condition of a community only when applied to countries which are in a normal state as regards age, but is apt to mislead in regard to new countries in which, at various stages of their history, the age conditions are subject to be disturbed by accessions of population from without. For it is evident that, if the number of persons—and especially of males—at marriageable ages increases, marriages are likely to increase; but, if there is a falling-off in the number of such persons, marriages must inevitably decline. The tendency of the marriageable males to marry

Marriage rates sometimes misleading.

is no doubt affected by their prosperity as well as the other circumstances by which they are surrounded, and of the intensity of these circumstances a marriage rate affords an indication, but to be of much value in countries where the elements of the population are disturbed, it should be calculated so as to show the proportion of marriages to such males, instead of to the total population. The reason why the latter is the method usually employed when the former gives results so much more reliable, is that the population, taken as a whole, can be estimated with an approach to correctness at almost any time, whilst difficulties lie in the way of forming a reliable estimate, between the census periods, of the number of single men at marriageable ages.

Proportion of marriages to population and single men.

448. The compilation of the returns of the census of 1881 is not sufficiently advanced to admit of the existing proportions between the number of marriages and of marriageable men being ascertained, but the following table gives such a statement for the four previous years in which a census was taken :—

PROPORTION OF MARRIAGES TO POPULATION AND TO MARRIAGEABLE MEN.

Year of Census.	Population.	Bachelors aged 20 and upwards, and Widowers at all ages.	Marriages.	Proportion of Marriages.	
				Per 1,000 of Population.	Per 1,000 Bachelors and Widowers.
1854	267,371	70,865	3,765	14·08	53·13
1857	430,347	95,427	4,524	10·51	47·41
1861	539,824	106,940	4,434	8·21	41·46
1871	737,005	89,921	4,693	6·37	52·19

Marriage rates at different periods compared.

449. The last column but one, which gives the marriage rate calculated according to the principle generally adopted, shows a very considerable decrease at each period as compared with the previous one, and a reference to a former table will show a still further decline for the three years 1878 to 1880, in which an average of only 6·13 marriages took place per 1,000 persons living. A very different state of things is, however, indicated in the last column, in which the marriage rate, calculated according to the more correct principle, shows some decline, it is true, between the first and second periods and the second and third periods, but a revival between the third and last periods to nearly the same rate as that which prevailed at the first period, which, being that of the most exciting time of the gold discoveries, was one during which marriage was often entered upon most recklessly.

Tendency to marriage not declining.

450. It is thus clearly proved that, at the date of the census of 1871 the true marriage rate was not only not declining, but had increased

greatly. There is reason to believe that the results of the census just taken will show a smaller number of marriageable men than there were in 1871; but, as the marriages have maintained their numbers, it will follow that, although a comparison of the marriages with the whole population may cause an impression that the tendency to marry is decreasing, a similar comparison with the number of single males at marriageable ages will prove that this is not the case, but, on the contrary, that such tendency is as great as, if not greater than, it was at any former period.

451. The following table gives the marriage rates of the various Australasian colonies for each year from 1869 to 1879, except Western Australia, for which colony it is given for the last eight of those years :—

Marriage rates in Australasian colonies.

MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1869 TO 1879.*

Year.	Number of Marriages † per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1869 ...	6·89	7·98	8·31	6·78	...	6·44	8·32
1870 ...	6·63	7·79	7·80	6·90	...	6·62	7·62
1871 ...	6·37	7·73	8·06	6·77	...	5·90	7·15
1872 ...	6·36	7·42	8·70	7·20	5·56	6·17	6·85
1873 ...	6·50	7·97	9·66	8·00	6·25	6·36	7·91
1874 ...	6·33	7·59	8·62	8·00	6·96	6·83	8·87
1875 ...	6·33	7·73	8·63	8·01	7·26	6·63	8·94
1876 ...	6·21	7·49	7·57	8·49	7·07	7·13	8·25
1877 ...	6·31	7·73	7·57	8·66	6·38	7·79	7·63
1878 ...	6·20	7·84	6·98	9·47	6·50	7·96	8·03
1879 ...	5·98	7·55	7·49	8·81	7·57	7·23	7·60
Means ...	6·37	7·71	8·13	7·92	6·69	6·82	7·92

452. It will be observed that these rates are calculated upon the total population, according to which principle the marriage rate in Victoria declined with considerable steadiness during the whole period. In New South Wales the marriage rate, although not so high in the last year of the period as in the first, was steadier throughout than the rate in any other colony. In South Australia and Tasmania the marriage rates had been increasing for some years, but in both they were lower in 1879 than in 1878, when the maximum during eleven years was attained. These, moreover, are the only colonies—with the exception of Western Australia—which had in 1879 rates above the average of the eleven-year period. In Queensland the rate has decreased rapidly since 1873, and in Western Australia and New

Colonies in which marriage rate is increasing, and contrary.

* For the number of marriages in the various colonies during the eight years ended with 1880, see General Summary of Australasian Statistics (third folding sheet) *ante*.

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

Zealand it declined from 1875 to 1877. In Western Australia, however, there has been a revival since 1877. The minimum, during the eleven years, occurred in South Australia, Tasmania, and New Zealand in 1871; in New South Wales and Western Australia (the latter given for eight years only) in 1872; in Queensland in 1878; and in Victoria in 1879.

Order of colonies in respect to marriage rates.

453. 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 eleven years. It will be noticed that Victoria is at the bottom of both lists; also that the positions of New Zealand and New South Wales have not varied; but that whilst Queensland, which stood first according to the average of eleven years, fell to the fifth place in 1879, South Australia, which stood second according to the average of the period, rose to the first place in 1879:—

ORDER OF COLONIES IN REFERENCE TO MARRIAGE RATES.

Order in 1879.	Order in a Series of Years.
1. South Australia.	1. Queensland.
2. New Zealand.	2. } New Zealand.
3. Western Australia.	2. } South Australia.
4. New South Wales.	3. New South Wales.
5. Queensland.	4. Tasmania.
6. Tasmania.	5. Western Australia.
7. Victoria.	6. Victoria.

Rural life promotes marriage.

454. It may be mentioned that, other things being equal, a rural life tends more to the promotion of marriage than a town one, and the high marriage rates in South Australia and New Zealand may no doubt be partly due to their being agricultural communities; but there is also little doubt that the high rates in these are also to be attributed to the marriageable class being swelled each year by a large number of adult immigrants, to which cause New South Wales also probably owes its position on the list.* Neither in that colony nor in Queensland, where immigration has of late fallen off, and with it the marriage rate, nor in Western Australia, are agricultural pursuits followed to so large an extent as in Victoria—the low marriage rate in which can only be explained upon the assumption, for which there are good grounds, that, in proportion to the whole population, single men are more numerous in every one of the other colonies than they are here.

Marriage rates in Australia and Australasia.

455. The marriage rate in 1879 of the colonies situated on the Australian continent, taken as a whole, as also of those colonies with the addition of Tasmania and New Zealand, was lower than in any of the six previous years, as will be seen by the following table:—

* For number of immigrants and emigrants in each Australasian colony during the seven years ended with 1879, see table following paragraph 106 *ante*.

MARRIAGE RATES IN AUSTRALIA AND AUSTRALASIA,
1873 TO 1879.

Year.			Number of Marriages* per 1,000 of Mean Population.	
			Continent of Australia.	Australia with Tasmania and New Zealand.
1873	...	...	7·35	7·38
1874	...	...	7·07	7·32
1875	...	...	7·12	7·38
1876	...	...	6·93	7·15
1877	...	...	7·05	7·18
1878	...	...	7·08	7·27
1879	...	...	6·88	7·01
Means	...	...	7·07	7·24

456. Returns of the births, deaths, and marriages are obtainable for but 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 Barbadoes is explained by the fact that the negro population as a rule ignore the marriage ceremony. The same circumstance, to a greater or less extent, doubtless also affects the marriage rate in Trinidad, and perhaps also in the Mauritius, although the low marriage rate in the latter would be, to a certain extent, accounted for by the fact that the large imported Cooly population is for the most part comprised of males, the females introduced being extremely few :—

Marriage rates in certain British possessions.

MARRIAGE RATES IN CERTAIN BRITISH POSSESSIONS.

			Years.	Annual Rate per 1,000 of the Population.*	
Ceylon	...	...	1867-76	...	7·3
Mauritius	...	...	1871-75	...	2·5
Seychelles	...	...	1875-77	...	8·7
Bermudas	...	...	1871-75	...	8·3
West Indies—					
St. Lucia	...	...	1878-79	...	5·2
St. Vincent	...	...	1872-76	...	6·3
Barbadoes	...	...	1872-77	...	3·7
Grenada	...	...	1871-75	...	5·6
Dominica	...	...	1871-75	...	6·9
Trinidad	...	...	1871-75	...	3·8

457. The following table gives for each of the eleven years ended with 1878 a statement of the marriage rates in British and such foreign

Marriage rates in European countries.

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

countries as the information is available for. The figures have been taken from the reports of the Registrar-General of England :—

MARRIAGE RATES IN EUROPEAN COUNTRIES, 1868 to 1878.

Year.	Number of Marriages * per 1,000 of Mean Populations.														
	England and Wales.	Scotland.	Ireland.†	Denmark.	Sweden.	Austria.	Hungary.	Switzerland.	Prussia.	German Empire.	Belgium.	The Netherlands.	France.	Spain.	Italy.‡
1868 ...	8·1	6·7	5·1	7·3	5·5	9·3	13·7	6·7	8·8	...	7·3	7·7	7·9	6·7	7·2
1869 ...	8·0	6·7	5·0	7·4	5·7	10·4	11·0	7·2	8·9	...	7·4	7·8	8·2	8·1	8·0
1870 ...	8·1	7·2	5·3	7·4	6·6	9·7	9·8	7·0	7·4	...	7·0	7·9	6·0	6·3	7·3
1871 ...	8·4	7·1	5·4	7·3	6·5	9·5	10·4	7·3	8·0	...	7·4	8·0	7·2	...	7·5
1872 ...	8·8	7·5	5·0	7·5	7·0	9·2	10·8	7·8	10·3	10·3	7·8	8·2	9·8	...	7·5
1873 ...	8·8	7·8	4·8	8·1	7·3	9·3	11·3	7·6	10·2	10·0	7·8	8·5	8·9	...	7·9
1874 ...	8·6	7·6	4·6	8·2	7·3	9·0	10·7	8·3	9·7	9·6	7·6	8·3	8·3	...	7·6
1875 ...	8·4	7·4	4·5	8·5	7·0	8·5	11·0	9·0	9·0	9·1	7·3	8·3	8·4	...	8·4
1876 ...	8·4	7·5	5·0	8·5	7·1	8·2	9·9	8·1	8·6	8·5	7·2	8·2	7·9	...	8·1
1877 ...	7·9	7·2	4·6	8·1	6·9	7·4	9·1	7·9	8·0	8·0	6·9	8·0	7·6	...	6·8
1878 ...	7·6	6·8	4·7	7·4	6·5	7·5	...	7·4	7·8	7·7	6·7	7·7	7·6	...	7·1
Means	8·3	7·2	4·9	7·8	6·7	8·9	10·8	7·7	8·8	9·0	7·3	8·1	8·0	7·0	7·6

Low European marriage rate.

458. It will be observed that in the last year named the marriage rates in all the European countries were below the average. In Austria the rate had been decreasing steadily since 1869 ; in England, Germany, and France since 1872 ; in Scotland, Sweden, Belgium, and the Netherlands since 1873 ; in Hungary, Switzerland, and Italy since 1875 ; and in Denmark since 1876. Moreover, in England, Hungary, Germany and Belgium the rate in the latest year was absolutely the lowest ; in Austria, the Netherlands, and Italy the lowest with one exception ; in Scotland the lowest with two exceptions ; and in France (including one year in which the rate was equal to that in the last) with three exceptions. It may be remarked that in England the marriage rate was lower in 1878 and 1877 than in any year since 1847, and is attributed by the Registrar-General of England to a continuance of the great commercial depression which set in in 1874, the chief causes of which were "the continued prevalence of strikes in most of the great trades, inactivity in the iron and coal industries, agricultural distress, bank failures, war between Russia and Turkey, and rupture between the Indian Government and the Ameer of Afghanistan."§

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

† The low marriage rate in Ireland is partly attributed to defective registration, particularly as regards 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.

‡ In Italy the civil became the only legal form of marriage in 1866, and the low rate (5·6) in that and subsequent years is attributed to the non-registration of marriages solemnized only in churches. The number of such marriages, which was very great in 1866 and 1867, has been, however, decreasing—hence the apparent increase during the earlier years.

§ See 41st report of the Registrar-General of England, page 10.

459. The mean marriage rate in Central Europe, as shown by the figures for Hungary, Germany, Austria, and Prussia, is much higher than in the other portions ; the rate in England and Wales comes next ; and the rates in Holland and France follow. All these rates exceed 8 per 1,000. The lowest rates prevail in Ireland* and Sweden. In only two of the Australasian colonies did the mean marriage rate, during the eleven years ended with 1878, exceed 8 per 1,000—viz., in Queensland and New Zealand—the rate in the former being slightly greater, and in the latter slightly less, than in Holland. The average rate in New South Wales and South Australia is about the same as in Denmark, which is next to France in regard to the marriage rate, whilst the rate in Tasmania and Western Australia is about the same as in Sweden, and that in Victoria is lower than in any of the European countries named except Ireland.

Australasian and European marriage rates compared.

460. The following, according to the reports of the Registrar-General of England, is the marriage rate of the United Kingdom during the eight years ended with 1878. If, however, the registrations in Ireland are defective, as is alleged,* some disturbance to the calculations must result therefrom. It will be observed that the rate was much lower in 1878 than in any previous year named :—

Marriage rate in United Kingdom.

MARRIAGE RATE IN THE UNITED KINGDOM, 1871 TO 1878.

						Marriages per 1,000 of the Population.
1871	...	...	...	...	...	8·21
1872	...	...	...	...	...	7·98
1873	...	...	...	...	...	8·03
1874	...	...	...	...	...	7·79
1875	...	...	...	...	...	7·67
1876	...	...	...	...	...	7·70
1877	...	...	...	...	...	7·32
1878	...	...	...	...	...	7·09
						—
	Mean	...	...	...	...	7·72
						—

461. Although, as has been already stated,† 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 1880 it was in country towns three times, and in the metropolis more than three times, as high as in rural districts, as will be seen by the following

Marriage rates in town and country.

* See footnote (t) to table following paragraph 457 ante.

† See paragraph 454 ante.

table, which contains a statement of the marriages celebrated in that year in the three classes of districts, together with the estimated mean populations of such divisions :—

MARRIAGES IN URBAN AND COUNTRY DISTRICTS, 1880.

Districts.	Estimated Mean Population.	Marriages, 1880.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs	277,200	2,554	9·21
Towns outside Melbourne and suburbs ...	189,642	1,693	8·93
Country districts	383,501	1,039	2·71
Total	850,343	5,286	6·22

Marriages in each quarter.

462. Marriages in Victoria have generally been most numerous in the autumn and spring quarters, and least numerous in the summer and winter quarters. In 1880, however, the number in the autumn was lower than that in any other quarter. The following table shows the number and percentage of marriages in each quarter of that year and the mean percentage in each quarter of the previous ten years :—

MARRIAGES IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1880.		Percentage in Ten Years: 1870 to 1879.
		Number of Marriages.	Percentage.	
Summer ...	March	1,360	25·73	24·44
Autumn ...	June	1,213	22·95	26·47
Winter ...	September	1,255	23·74	23·75
Spring ...	December	1,458	27·58	25·34
	Year	5,286	100·00	100·00

Former condition of persons married.

463. About four-fifths of the unions which take place are between bachelors and spinsters ; and the next most numerous are generally those between widowers and spinsters, although they have sometimes been exceeded by marriages between bachelors and widows. Marriages between widowers and widows are generally somewhat less than a twentieth of the whole. The following are the number and percentage in each of these groups during 1880 and the percentage during the previous decennial period :—

FORMER CONDITION OF PERSONS MARRIED.

Previous Condition.	Year 1880.		Percentage in Ten Years : 1870 to 1879.
	Number of Marriages.	Percentage.	
Bachelors and spinsters	4,376	82.78	80.29
Bachelors and widows	307	5.81	7.37
Widowers and spinsters	390	7.38	7.77
Widowers and widows	213	4.03	4.57
Total	5,286	100.00	100.00

464. Divorced persons marrying are classed 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. Three divorced males and 3 divorced females were married in 1880. The divorced males married spinsters, and the divorced females married bachelors. Divorced persons.

465. 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 were alive at the time thereof. Three males and 10 females availed themselves of this provision in 1880. The former had not heard of their former wives for 7, 7, and 8 years respectively. Of the females, 8 married bachelors, and 2 widowers ; 2 had not heard of their former husbands for 7 years, 2 for 8 years, and the remainder had not heard of theirs for 9, 12, 14, 19, 23, and 30 years respectively. In the previous year, 2 deserted males and 7 deserted females remarried. Deserted husbands and wives.

466. In 1880, 603 widowers and 520 widows re-entered the marriage state. During the last seven years more widowers have remarried than widows. Formerly it was different. In the six years ended with 1873 the widowers re-entering the marriage state numbered 3,353 and the widows 3,529, and at earlier periods in the history of the colony the preponderance of remarriages of widows over those of widowers was even greater than this. Such a circumstance would be likely to happen only in a country in which females are much less numerous than males, and the reverse having been the case of late years affords indirect proof that the proportion of marriageable females to marriageable males in the population has increased. In England and Wales, during the twenty years ended with 1874, 48 per cent. more widowers remarried than widows, the number of the former being 490,912, that of the latter 332,428. The following is a statement of the number of widowers and widows who remarried in Victoria during each of the eleven years ended with 1880 :— Remarriages.

REMARRIAGES, 1870 TO 1880.

Year.	Number of Remarriages of—		Year.	Number of Remarriages of—	
	Widowers.	Widows.		Widowers.	Widows.
1870 ...	547	595	1877 ...	666	600
1871 ...	587	605	1878 ...	634	585
1872 ...	522	552	1879 ...	637	553
1873 ...	586	591	1880 ...	603	520
1874 ...	602	593			
1875 ...	614	583			
1876 ...	678	623			
			Total ...	6,676	6,400

Marriages of
Aborigines.

467. The marriages of 9 Aboriginal males with Aboriginal females are included in the returns of 1880. The Aborigines who desire to enter the marriage state now generally do so according to some form recognized by law. Mr. R. Brough Smyth, in his work upon the Aborigines,* says that before the advent of Europeans there was no such thing as marriage in the proper sense of the word amongst the Australians. The acts which preceded matrimony were certainly not entitled to be regarded as rites. Men obtained wives by a convenient system of exchange, by conquest sometimes, and sometimes a woman was stolen.

Marriages of
Chinese.

468. Thirteen Chinese males were married in Victoria in the year 1880, as against 11 in 1879, 13 in 1878, 20 in 1877, and 14 in 1876. During the fourteen years prior to the year under review, 241 Chinese men were married in Victoria, or an average of 17 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 :—

NATIONALITY OF WOMEN MARRYING CHINESE, 1866 TO 1880.

Birthplace of Wives.	Number of Marriages of Chinese Males.		
	Fourteen Years: 1866 to 1879.	Year 1880.	Total: 1866 to 1880.
Victoria	99	6	105
Other Australian colonies ...	42	3	45
England	49	1	50
Scotland	15	...	15
Ireland	23	1	24
Other British possessions ...	1	...	1
France	1	...	1
Germany	2	...	2
Spain	1	...	1
The United States	1	...	1
China	4	...	4
At sea	3	2	5
Total	241	13	254

* *The Aborigines of Victoria*, vol. I., page 76, by R. Brough Smyth. Ferres: Melbourne, 1878.

469. The marriage ceremony in Victoria may be performed either by the registered clergy of any religious sect or by lay registrars. In 1880 nearly 89 per cent. of the marriages were celebrated according to the former, and rather more than 11 per cent. according to the latter system. Lay marriages are becoming more and more popular. The number performed during 1880 exceeded by 57 the number in 1879, and was greater than that in any previous year. The following table gives a statement of the number and percentage of marriages celebrated by each religious sect and by lay registrars during 1880, and during the previous ten years:—

MARRIAGES BY DIFFERENT DENOMINATIONS.

Marriages performed according to the usages of the—	Marriages celebrated in—			
	Year 1880.		Ten Years : 1870 to 1879.	
	Number.	Percentage.	Number.	Percentage.
Church of England	1,341	25·37	12,059	24·50
Presbyterians	1,074	20·32	10,046	20·41
Wesleyans	834	15·78	8,030	16·31
Bible Christians	105	1·99	790	1·60
Independents	247	4·67	2,683	5·45
Baptists	197	3·73	1,780	3·62
Lutherans	63	1·19	511	1·04
Unitarians	2	·04	8	·02
Society of Friends ... ..	...	...	5	·01
Calvinistic Methodists	7	·13	89	·18
Roman Catholic Church	729	13·79	8,907	18·09
Jews	28	·53	208	·42
Other sects	71	1·34	494	1·00
Lay registrars	588	11·12	3,620	7·35
Total	5,286	100·00	49,230	100·00

470. 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 detect these cases in the registers, but the circumstance occurs too seldom to cause any serious disturbance in the marriage statistics.

471. Of the 9 Aboriginal marriages which took place in 1880, 6 were solemnized according to the rites of the Moravians, and 3 according to those of the Church of England.

472. Of the marriages of Chinese in 1880, 2 were celebrated according to the rites of the Church of England, 3 according to those of the Presbyterian, 4 according to those of the Wesleyan, and 1 according to those of the Roman Catholic Church, and 3 were performed by lay registrars.

Signing with marks.

473. 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 1880, the proportion of those who signed with marks to the total numbers married being also shown :—

SIGNING MARRIAGE REGISTER WITH MARKS, 1880.

Persons Married.	Numbers Married.	Signing with Marks.	
		Total Number.	Number in every 100 Married.
Bridegrooms	5,286	221	4·18
Brides	5,286	216	4·09
Mean	5,286	218	4·12

More males than females signed with marks, 1880.

474. It will be noticed that the proportion of females signing with marks was smaller than that of males. This is the first occasion on which such a circumstance has happened in this colony; the males in previous years having been, according to this test, invariably found to be the least illiterate.

Increased numbers signing in writing.

475. In proportion to the total numbers married, an evident increase has taken place of late years in the number of both males and females signing the marriage register in writing. In 1879 the proportion of females signing with marks was slightly greater than in 1878, and in 1880 the proportion of males so signing was greater than in 1878 and 1879; but, with these exceptions, a constant improvement has been apparent from year to year—each year, as compared with its predecessor, showing a smaller proportion of persons signing with marks. The following are the proportions for the last eight years :—

NUMBERS SIGNING WITH MARKS PER 100 MARRIED, 1873 TO 1880.

Year.	Men.	Women.	Mean.
1873	6·55	9·97	8·26
1874	6·52	9·91	8·22
1875	5·48	9·43	7·46
1876	5·31	7·50	6·41
1877	5·04	6·02	5·53
1878	4·12	5·30	4·71
1879	3·81	5·60	4·71
1880	4·18	4·09	4·12

Signing with marks, 1853 to 1872.

476. A very much more decided improvement is shown by comparing these results with those of the twenty years prior to 1873, which embrace the whole period from 1853, when the registration system was inaugurated in Victoria, to the end of 1872. In this period 86,062 marriages were registered, with the result that 7,902 of the bridegrooms and

17,824 of the brides signed the register with marks. These numbers give the following proportions as the average for the twenty years:—

NUMBERS SIGNING WITH MARKS PER 100 MARRIED, 1853 TO 1872.

Men.	...	Women.	...	Mean.
9·18		20·71		14·95

477. The marriages in which marks instead of writing were made use of in 1880 numbered 389, but in only 48 of these, or less than an eighth, did both parties so sign. In the 341 other instances either the husband or the wife signed in writing. Thus, whereas the marriages in which one or both could not write amounted to about a thirteenth of the whole, in the case of only about 1 in every 110 marriages could neither party write.

Cases of both signing with marks.

478. In the case of the 9 marriages of Aborigines celebrated in 1880, all but one of the females, but only one of the males, signed the marriage register in writing.

Signatures of Aborigines.

479. 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 1880 and the average of the previous ten years. Considerable improvement will be noticed in respect to all the principal sects:—

Signing with marks in each sect.

SIGNING WITH MARKS IN EACH SECT.

Marriages performed according to the usages of the—	Number Signing with Marks in every 100 Married.					
	Year 1880.			Ten Years: 1870 to 1879.		
	Men.	Women.	Mean.	Men.	Women.	Mean.
Church of England ...	3·73	2·16	2·94	4·69	6·99	5·84
Presbyterians ...	2·80	3·17	2·98	3·88	6·56	5·22
Wesleyans ...	3·84	2·40	3·12	} 4·34	5·88	5·11
Bible Christians ...	3·81	4·76	4·28			
Independents ...	2·02	3·64	2·83	3·91	6·63	5·27
Baptists ...	3·05	2·54	2·79	3·59	5·56	4·57
Lutherans ...	...	3·17	1·58	1·96	4·50	3·23
Calvinistic Methodists ...	14·29*	...	7·14	...	6·74	3·37
Roman Catholics ...	6·86	9·19	8·02	10·97	17·19	14·08
Jews ...	...	...	...	1·44	1·92	1·68
Other sects ...	8·45	...	4·22	6·68	4·45	5·56
Lay registrars ...	6·29	7·65	6·97	6·58	14·03	10·30
Total ...	4·18	4·09	4·13	5·62	8·92	7·27

* Only 7 marriages in 1880; one man signed with a mark.

Roman
Catholic
and civil
marriages.

480. It will be observed that the proportion of those signing with marks is higher amongst marriages according to the rites of the Roman Catholic Church than amongst those celebrated by any other religious sect, but that the numbers in 1880 show a very considerable improvement as compared with the previous ten years. The proportion amongst civil marriages is usually somewhat lower than amongst marriages by Roman Catholics, and these also show marked improvement in this respect of late years.

Marriages by
Unitarians,
Calvinists,
and Jews.

481. In the 10 marriages by Unitarians which took place in the eleven years ended with 1880, not one instance occurred of either of the parties signing with a mark; this sect therefore finds no place in the above table. In the 96 marriages by Calvinistic Methodists all but one of the males signed in writing, but 6 of the females signed with marks. In the 236 marriages of Jews only 7 persons signed with marks.

Signing with
marks in
Austral-
asian colo-
nies.

482. 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 1877, 1878, and 1879, have been deduced. The colonies are placed in order according to the state of education thus 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, 1877 TO 1879.

Colony.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
1. Victoria	1877	5·04	6·02	5·53
	1878	4·12	5·30	4·71
	1879	3·81	5·60	4·71
2. New Zealand	1877	3·95	8·54	6·25
	1878	2·96	6·85	4·90
	1879	3·31	6·41	4·86
3. South Australia	1877	6·14	7·89	7·01
	1878	5·09	7·00	6·04
	1879	6·48	6·93	6·70
4. New South Wales	1877	8·45	11·07	9·76
	1878	7·71	8·52	8·11
	1879	6·86	8·31	7·58
5. Queensland	1877	7·78	14·15	10·97
	1878	6·23	13·30	9·76
	1879	6·86	11·97	9·41

483. By these figures it appears that, in the matter of signature to the marriage register, all the colonies showed improvement in 1878 as compared with 1877, and many of them a still further improvement in 1879; also that in all the years the proportion of persons able to sign in writing was higher in Victoria than in any other colony. The proportion of illiterate males, however, was greater during the last two years named in Victoria than in New Zealand, but that of illiterate females was so much less that, according to the mean of the two sexes, the position of Victoria was above that of New Zealand.

Victoria the least illiterate colony.

484. No returns are at hand showing the manner in which the marriage registers are signed in British colonies other than those named. The following, however, taken from the reports of the Registrars-General, are the proportions using marks in England, Scotland, and Ireland:—

Signing with marks in the United Kingdom.

SIGNING WITH MARKS IN THE UNITED KINGDOM.

Country.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
England and Wales ...	1878	14·6	19·8	17·2
Scotland ...	1875	8·6	16·9	12·7
Ireland ...	1878	28·5	33·7	31·1

485. From the figures it would seem that Scotland is before and Ireland is behind England in point of adult education, but that all are much behind even the most backward of the Australasian colonies. In England, in the 5 years ended with 1878, the greatest proficiency amongst men was attained in the Westmoreland district, where the percentage signing with marks was only 7·4; but even this shows more illiteracy amongst males than that found to exist in 1879 in any of the colonies named. As regards females the highest state of proficiency prevailed in the Surrey district, where the percentage signing with marks was 8·1, or a lower proportion than in New South Wales or Queensland.

Illiteracy in United Kingdom and colonies compared.

486. Of other countries the only one respecting which similar particulars are at hand is France, where, according to the returns of 1877, illiteracy—by the marriage register test—is somewhat more prevalent amongst males, and very much more so amongst females, than in England and Wales, but in both cases is considerably lower than in Ireland. In France, the proportions signing with marks in every 100 marriages during 1877 were — males, 18·52; females, 29·60; mean, 24·06.

Signing with marks in France.

Adult education in Victoria superior to elsewhere.

487. It is satisfactory to find that, according to the test afforded by the marriage registers, a knowledge of the rudiments of education is more common amongst adults in Victoria than in England or France, which are probably more advanced in this respect than most other European countries. There is, moreover, every reason to expect that this knowledge will gradually become universal in the colony, as the children educated under the compulsory system of public instruction established in 1873 arrive at marriageable ages.

Ages of persons married.

488. The age of both bride and bridegroom was specified in the case of all but 46 of the 5,286 marriages which took place in 1880.* In 38 of the defective entries the age of neither party was given; in 2 cases the age of the husband was stated, not that of the wife; and in 6 instances the age of the wife was given, not that of the husband. The following table shows the ages of the husbands and of the wives in combination:—

AGES OF PERSONS MARRIED, 1880.

Ages of Husbands.	Ages of Wives.															Total Husbands.				
	14 to 15.	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.
17 to 18 years...	2	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	5
18 to 19 "	1	3	1	1	4	1	...	...	...	...	...	...	...	...	...	...	11
19 to 20 "	1	7	6	8	2	9	...	...	...	...	...	...	...	...	...	...	...	33
20 to 21 "	...	1	5	8	13	21	24	38	3	...	1	...	...	...	...	...	...	...	...	114
21 to 25 "	2	4	19	67	121	187	232	996	107	16	5	...	...	...	...	...	...	...	1	1757
25 to 30 "	...	3	11	40	70	110	144	788	314	61	11	2	2	...	...	...	...	...	1	1557
30 to 35 "	2	10	25	31	44	271	166	82	24	6	...	...	...	...	...	...	...	661
35 to 40 "	2	9	12	9	18	124	127	70	42	19	1	...	2	...	...	...	...	435
40 to 45 "	3	1	5	6	7	49	58	49	39	28	4	1	...	1	...	...	...	251
45 to 50 "	1	2	3	...	3	21	26	27	34	35	29	2	1	1	1	...	...	186
50 to 55 "	2	...	2	9	11	19	16	15	28	6	3	...	...	...	...	111
55 to 60 "	1	...	...	...	...	7	5	12	9	10	10	5	1	...	...	...	60
60 to 65 "	2	1	2	5	7	11	9	4	2	2	1	...	...	46
65 to 70 "	1	...	1	2	...	...	3	1	...	1	...	...	9
70 to 75 "	1	...	1	1	...	...	...	...	...	1	...	...	4
75 to 80 "	1	...	1
80 to 85 "
85 to 90 "	1	...	...	...	...	...	...	...	1
Unspecified	5	1	...	...	...	...	...	...	...	...	...	38	...	44
Total wives...	2	8	46	146	260	374	485	2314	822	336	194	126	83	26	14	5	3	2	40	5286

NOTE.—This table may be read thus:—Three men between 40 and 45 married girls between 16 and 17; a woman between 60 and 65 married a man between 40 and 45, &c.

* There is no reason to suppose that in Victoria the age of either party to a marriage is often wrongly stated, and the cases in which the age is not specified are but few. It may, however, not be amiss to quote the following from the 41st (last) report of the Registrar-General of England, page xv.:—“I should be glad if the clergy, at the time of registering the marriage, would state that it is of considerable importance, not only to the parties themselves, that their precise ages should be returned either for tracing pedigree or for proof of personal identification in establishing title to property—but that such particulars would also enhance the values of these national records for purposes of statistical investigation.”

489. An examination of the above table will show that in 1,539 instances, or 29 per cent. of the whole, both parties to the marriage were about the same age; in 338 instances, or 7 per cent. of the whole, the wife was older than the husband; and in 3,363 instances, or 64 per cent. of the whole, the husband was older than the wife.

Relative ages of husband and wife.

490. Boys not under 14 and girls not under 12 years of age may, with the consent of their parents or guardians, legally marry in Victoria; but, as a matter of fact, marriages are seldom contracted at such early ages. Five of the males, however, who married in 1880 had not reached their eighteenth year, and two of the females had not reached their fifteenth; as many as 163 of the males, or 1 in every 32, and no fewer than 1,321 of the females, or just a fourth, had not attained the full age of 21 years. These proportions fluctuate from year to year. In 1880, as compared with previous years, the proportion of males marrying under age was high, but that of females low.

Marriages of minors.

491. In proportion to the total numbers marrying, more females but fewer males marry under age in Victoria than in England and Wales. This is shown by the figures in the following table; but it should be pointed out that this is not an infallible test of the tendency to marry under age, to determine which accurately, the minors marrying should be compared with the total number of persons at the same period of life:—

Marriages of minors in Victoria and England.

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.
	Year 1880.	Ten Years: 1870 to 1879.	Ten Years: 1868 to 1877.
Bridegrooms ...	3.08	2.37	7.90
Brides ...	24.99	28.61	21.91
Mean ...	14.03	15.49	14.90

492. The births registered in Victoria during 1880 numbered 26,148, as against 26,839 in 1879. The decrease in the year under review, as compared with the previous one, was thus 691.

Births, 1880.

493. The births in 1880 were less numerous than in any previous year since 1867, except 1877 and 1869.*

Births in 1880 and former years.

* For number of births in each year, see Statistical Summary of Victoria (first folding sheet ante).

Birth rate.

494. The birth rate has been decreasing steadily for years past, and in 1880 was lower than it was in any year of the previous vicenniad. The following are the figures for the twenty-one years :—

ANNUAL BIRTH RATE, 1860 TO 1880.

							Births per 1,000 of Mean Population.
1860	...	...	...	...	...	...	42·81
1861	...	...	...	...	...	...	43·46
1862	...	...	...	...	...	...	44·50
1863	...	...	...	...	...	...	42·46
1864	...	...	...	...	...	...	43·79
1865	...	...	...	...	...	...	42·40
1866	...	...	...	...	...	...	39·76
1867	...	...	...	...	...	...	39·75
1868	...	...	...	...	...	...	41·08
1869	...	...	...	...	...	...	37·89
1870	...	...	...	...	...	...	38·07
1871	...	...	...	...	...	...	37·15
1872	...	...	...	...	...	...	36·33
1873	...	...	...	...	...	...	36·71
1874	...	...	...	...	...	...	34·46
1875	...	...	...	...	...	...	33·94
1876	...	...	...	...	...	...	33·61
1877	...	...	...	...	...	...	32·17
1878	...	...	...	...	...	...	32·36
1879	...	...	...	...	...	...	32·18
1880	...	...	...	...	...	...	30·75
Average of twenty-one years						...	<u>37·27</u>

Birth rates
sometimes
misleading.

495. 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 in regard to age. It must be quite evident that, if there is not a sufficient proportion of women at the fruitful or child-bearing ages in a community, the birth rate cannot be high, but that an excess of women at such ages would be likely to cause a high birth rate. The frequency of marriages also raises the birth rate; but there are in some countries, such as France, circumstances owing to which, notwithstanding the proportion of women of fruitful age is quite up to the average, and marriages are numerous, the birth rate is still low. The census just taken may be expected to throw light upon this as well as on many other social questions of the deepest interest.

Birth rates
in Austral-
asian
colonies.

496. Complete returns of the births in the Australasian colonies are available to the end of 1879, 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 each year from 1869 to 1879, or as many years between those periods as the figures are available for :—

BIRTH RATES IN AUSTRALASIAN COLONIES, 1869 TO 1879.*

Year.	Number of Births per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1869 ...	37·89	40·41	42·83	39·03	...	28·27	41·90
1870 ...	38·07	39·76	43·51	38·48	...	30·18	42·32
1871 ...	37·15	39·42	43·25	38·34	...	30·16	40·64
1872 ...	36·33	38·27	40·70	37·60	32·42	29·44	39·50
1873 ...	36·71	39·01	40·82	36·42	31·43	29·43	39·00
1874 ...	34·46	38·75	41·11	38·22	33·71	29·72	40·27
1875 ...	33·94	37·83	38·90	35·70	28·72	29·88	40·23
1876 ...	33·61	37·69	37·48	37·71	33·98	30·11	41·73
1877 ...	32·17	36·92	36·75	37·36	33·07	30·21	41·28
1878 ...	32·36	37·36	35·77	38·23	31·11	32·27	42·14
1879 ...	32·18	37·72	36·74	38·96	34·38	32·05	40·32
Means ...	34·99	38·47	39·81	37·82	32·35	30·16	40·85

497. The birth rates in Victoria and New South Wales—more especially the former—have been declining with little intermission throughout the whole, and the birth rate in Queensland during the latter half, of the period of eleven years. The rates in South Australia and Western Australia fluctuate considerably; in 1879 the rates in both these colonies were above the average. The colonies in which the birth rate has shown signs of increase of late years are Tasmania and New Zealand; in the former it increased steadily, and in the latter not quite so evenly, in the six years ended with 1878, but in 1879 it showed a diminution in both colonies, especially in New Zealand. A glance at the table will show that, in all the colonies except these two, higher rates prevailed in the earlier than in the latter years of the period.

Colonies in which birth rate is increasing, and the contrary.

498. 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 eleven years. It will be observed that Victoria is the lowest but one on the list for 1879 and stands fifth in the eleven-year series:—

Order of colonies in respect to birth rates.

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO BIRTH RATES.

- Order in 1879.
1. New Zealand.
 2. South Australia.
 3. New South Wales.
 4. Queensland.
 5. Western Australia.
 6. Victoria.
 7. Tasmania.

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

* For the number of births in the various colonies during the eight years ended with 1880, see General Summary of Australasian Statistics (third folding sheet) *ante*.

Birth rate in
Australia
and Aus-
tralasia.

499. In the Australasian colonies, taken as a whole, the birth rate had from 1873 to 1877 shown a more marked decline than the marriage rate.* There was, however, a slight improvement in 1878 and 1879, as will be seen by the following figures:—

BIRTH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1879.

Year.	Number of Births per 1,000 of Mean Populations.	
	Continent of Australia.	Australia with Tasmania and New Zealand.
1873	37·36	37·19
1874	36·46	36·70
1875	35·29	35·82
1876	35·20	36·04
1877	34·15	35·16
1878	34·31	35·51
1879	34·55	35·42
Means	35·33	35·98

Birth rates in
British
possessions.

500. The birth rates in certain British colonies outside Australasia, including all those for which the information is available, are shown in the following table. In some cases the figures are only for one or two years:—

BIRTH RATES IN CERTAIN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Births per 1,000 of the Population.
Ceylon	1867-76	27·7
Straits Settlements	1873-7	9·3†
Hong Kong	1875	13·8
Mauritius	1876-7	36·5
Seychelles	1875-7	37·4
Bermudas	1871-5	37·8
British Guiana	1871-9	35·5
West Indies—		
Bahamas	1874-5	39·0
Jamaica	1875	33·1
St. Lucia	1869-79	46·4‡
St. Vincent	1870-9	46·0
Barbadoes	1872-8	43·2
Grenada	1871-5	45·2
Antigua	1875-6	40·4
Montserrat	1874-5	48·8
Dominica	1871-6	31·0
Trinidad	1876	35·2

Birth rates in
European
countries.

501. A statement of the birth rates in British and certain foreign countries for each of the eleven years ended with 1878 is given in the

* See paragraph 455 ante.

† Registrations incomplete.

‡ Including still births.

following table. The figures have been taken from the reports of the Registrar-General of England:—

BIRTH RATES IN EUROPEAN COUNTRIES, 1868 TO 1878.

Year.	Number of Births per 1,000 of Mean Populations.														
	England and Wales.	Scotland.	Ireland.*	Denmark.	Sweden.	Austria.	Hungary.	Prussia.	German Empire.	Switzerland.	Belgium.	The Netherlands.	France.	Spain.	Italy.
1868...	35.8	35.3	26.7	31.2	27.5	39.3	42.4	36.8	...	30.2	31.5	34.7	25.7	34.4	35.3
1869...	34.8	34.3	26.7	29.5	28.2	40.2	42.6	37.7	...	30.9	31.6	34.5	25.7	35.7	37.0
1870...	35.2	34.6	27.7	30.5	28.3	40.5	41.7	38.1	...	31.3	32.3	35.9	25.5	35.4	36.7
1871...	35.0	34.5	28.1	30.2	30.4	39.9	43.0	33.8	...	30.5	31.0	35.3	22.6	...	37.0
1872...	35.8	35.0	27.8	30.3	30.0	39.9	41.0	39.7	39.4	31.3	32.3	35.8	26.8	...	37.8
1873...	35.5	34.9	27.1	30.7	30.8	40.3	42.2	39.7	39.7	31.2	32.5	36.0	26.1	...	36.3
1874...	36.2	35.7	26.6	30.8	30.9	40.1	42.7	40.1	40.1	31.9	32.6	36.1	26.2	...	34.9
1875...	35.5	35.4	26.1	31.8	31.0	40.4	45.2	40.3	40.6	33.5	32.5	36.3	26.0	...	37.7
1876...	36.6	35.9	26.4	32.5	30.7	40.6	45.6	40.5	40.8	32.9	33.2	36.8	26.3	...	39.0
1877...	36.2	35.6	26.2	31.7	30.9	39.1	43.3	39.8	40.3	32.1	32.3	36.3	25.6	...	36.7
1878...	35.9	35.3	25.1	31.6	29.7	38.9	...	38.6	38.8	31.5	31.5	35.8	25.2	...	35.9
Means	35.7	35.1	26.8	30.9	29.9	39.1	42.9	38.6	39.9	31.6	32.1	35.8	25.6	35.1	36.8

502. It is reasonable to suppose that the averages in this table will follow a similar order to those in the table of marriage rates,† and this is found to be the case, except in respect to three countries, viz., France, Spain, and Italy. The discrepancy may be only apparent in the case of Spain, as the average is for no more than three years, and in Italy it is satisfactorily explained by the circumstance that many marriages have not been registered;‡ but as regards France no such explanation can be given, and the fact remains that, whilst it has a comparatively high marriage rate, the birth rate is lower than that in any other European country, and is but little above its own death rate. §

Discrepancies between birth and marriage rates in European countries.

503. The birth rate of Victoria, taken over a series of years, is about equal to the rate in Scotland and Spain, lower than that in England and Holland (in which the rates are about equal), Italy, or the Central European States, but higher than that of any of the other countries named in the last table. In four of the Australasian colonies—viz., Queensland, New Zealand, New South Wales, and South Australia—the rate is about

Australasian and European birth rates compared.

* It is explained that the low birth rate in Ireland is partly attributable to the small proportion of females in the population at child-bearing ages. (See 15th Detailed Report of the Registrar-General of Ireland, pages 12 and 29.) There is also no doubt, however, that the figures understate the truth, the registration being admittedly defective.

† See table following paragraph 457 ante.

‡ See footnote (1) to table following paragraph 457 ante.

§ An explanation of the low birth rate in France is given, as follows, by the Registrar-General of England, in his 41st Report, page xlvi:—"The low birth rate in France cannot be attributed to a small proportional number of women at the child-bearing ages, for the proportion is higher in France than in any other country of Europe; indeed, it is generally recognised to be chiefly, though indirectly, due to the subdivision of land among the peasant proprietors. The better class of the laboring 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 amongst a large family at their decease."

equal to that in Central Europe—the rate in the two former approximating to that in Hungary, and in the two latter to that in Prussia. In Western Australia the rate is about the same as in Belgium, whilst in Tasmania it is lower than in any of the countries named, except Sweden, Ireland, and France.

Birth rate
in United
Kingdom.

504. According to the reports of the Registrar-General of England, the following is the birth rate of the United Kingdom during the eight years ended with 1878 :—

BIRTH RATE IN THE UNITED KINGDOM, 1871 TO 1878.

			Births per 1,000 of the Population.				Births per 1,000 of the Population.
1871	...	...	35·0	1877	...	...	34·5
1872	...	...	34·4	1878	...	...	34·1
1873	...	...	34·1				—
1874	...	...	34·5		Mean	...	34·4
1875	...	...	34·0				—
1876	...	...	34·9				—

Birth rates
in town and
country,
1880.

505. The following table shows the births and birth rates in the metropolis, the extra-metropolitan towns, and the country districts of Victoria during 1880 ; also the estimated population of such divisions about the middle of that year :—

BIRTHS IN URBAN AND COUNTRY DISTRICTS, 1880.

Districts.	Estimated Mean Population.	Births, 1880.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs ...	277,200	8,645	31·19
Towns outside Melbourne and suburbs	189,642	6,488	34·21
Country districts ...	383,501	11,015	28·72
Total ...	850,343	26,148	30·75

Birth rates
in town and
country,
1873 to 1880.

506. The following table shows the birth rates in the same three divisions of the colony during each of the last eight years. The rates here given for extra-metropolitan towns and country districts differ somewhat from those published last year, as the errors in the population estimates, which the census disclosed, necessitated changes in the figures for previous years. It was not, however, found necessary to alter the figures for Melbourne and suburbs, as the difference between the estimated and ascertained population of the metropolitan district was not great. In the earlier years of the period named, the birth rate of the country districts was about equal to that of the metropolis, whilst the birth rate of the extra-metropolitan towns was very much higher than either. In the latter years, however, the metropolitan rate

was much above that of the country districts, and was only slightly below that of the extra-metropolitan towns.

BIRTH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1880.

Year.	Number of Births per 1,000 of the Population.			
	Melbourne and Suburbs.	Towns outside of Melbourne and Suburbs.	Country Districts.	Total of Victoria.
1873 ...	34·36	40·18	36·32	36·71
1874 ...	32·98	39·81	32·46	34·46
1875 ...	33·63	38·63	31·54	33·94
1876 ...	33·20	37·80	31·61	33·61
1877 ...	33·09	34·51	30·30	32·17
1878 ...	33·67	35·42	29·89	32·36
1879 ...	33·32	35·65	29·63	32·18
1880 ...	31·19	34·21	28·72	30·75

507. The following table shows the mean population, the number of births, and the birth rate during 1880 ; also the birth rate during the nine years, 1871 to 1879, in the different municipalities, &c., forming the component parts of the district of Melbourne and suburbs:—

Birth rates in metropolitan sub-districts.

BIRTH RATES IN MELBOURNE AND SUBURBS, 1871 TO 1880.

Sub-districts.	Year 1880.		Estimated Mean Population.*	Births.		Nine Years : 1871 to 1879. Annual Births per 1,000 of Mean Population.
				Total Number.	Number per 1,000 of the Population.	
			Melbourne City ...			...	64,032	1,579	24·66	27·92
Hotham Town	16,877	552	32·71	34·18	
Fitzroy City	22,594	719	31·82	34·96	
Collingwood City	23,439	790	33·70	36·62	
Richmond Town	22,907	722	31·52	36·55	
Brunswick Borough	6,054	233	38·49	38·71	
Prahran City	20,639	626	30·33	32·66	
Emerald Hill Town	24,760	798	32·23	31·99	
Sandridge Borough	8,593	340	39·57	38·92	
St. Kilda Borough	11,470	306	26·68	29·33	
Brighton Borough	4,630	118	25·49	31·87	
Essendon and Flemington Borough	4,867	142	29·18	39·29	
Hawthorn Borough	5,816	159	27·34	35·14	
Kew Borough	3,346	87	26·00	27·06	
Footscray Borough	5,730	240	41·88	46·23	
Williamstown Borough	8,890	304	34·20	39·48	
Remainder of district	17,680	410	23·19	26·21	
Hospitals, asylums, &c. †	3,398	519	152·74	139·48	
Shipping in Hobson's Bay and river ‡	...	1,478	1	·67	...	
Total	277,200	8,645	31·19	33·80	

*Deduced from the recent census.

† The population given is that of all the public institutions, but the Lying-in Hospital is the only institution in which births occurred.

‡ Figures showing population of shipping at census of 3rd April 1881.

Birth rates
in sub-dis-
tricts, 1871
to 1879.

508. It will be observed that during the nine years ended with 1879 the births in one municipality only, viz., Footscray, were above 40 per 1,000 of the population; that in six municipalities, viz., Williamstown, Essendon and Flemington, Sandridge, Brunswick, Collingwood, and Richmond, they were between 35 and 40 per 1,000; in five municipalities, viz., Fitzroy, Hotham, Prahran, Emerald Hill, and Brighton, they were between 30 and 35 per 1,000; and that in three municipalities, viz., St. Kilda, Melbourne, and Kew, they were below 30 per 1,000. The lowest rate was in "Remainder of District," viz., $26\frac{1}{3}$ th per 1,000, which was even lower than in the rural districts of the colony.*

Birth rates
in sub-dis-
tricts, 1880.

509. During 1880, the rates in all the sub-districts except Emerald Hill and Sandridge were lower than they were in the nine-year period. The sub-district with the highest birth rate was still Footscray, those with the lowest were Brighton, Kew, Melbourne City, and "Remainder of District."

Birth rate in
London.

510. The birth rate in London, according to the average of the ten years 1868-77, was 35·8, which was only slightly higher than that of England and Wales during the same period. It was thus about 2 per 1,000 above the average in Melbourne and suburbs.

Births of
males and
females.

511. The births of males in Victoria during 1880 numbered 13,358, those of females 12,790. These numbers furnish a proportion of 104·4 boys to 100 girls. In the previous ten years 137,914 births of males and 131,799 births of females were registered, giving a proportion of 104·6 boys to 100 girls.

Births of
males and
females in
United
Kingdom.

512. In every country in which births are registered it is found that more males are born than females. In England and Wales, during the ten years ended with 1877, 103·9 boys were born to 100 girls; in Scotland, during 1878, 106·4 boys were born to 100 girls; and in Ireland, during 1878, 104·6 boys were born to 100 girls.

Twins and
triplets.

513. Cases in which twins were born numbered 219 in 1880, but no case occurred of triplets being born. In the eleven years ended with 1880, 2,737 cases of twins and 22 cases of triplets were recorded, the total number of births in the same period having been 295,861. There were thus 293,080 confinements in the eleven years, and it follows that 1 mother in every 107 gave birth to twins, and 1 mother in every 13,322 was delivered of three children at a birth.

Illegitimate
births.

514. The illegitimate children born in 1880 numbered 1,254, or 1 in every 21 births registered, a proportion which was the same as in 1879, but much higher than in any previous year. The illegitimate births in 1879 were set down as 1 in 21; in 1878 as 1 in 24; in 1877

* See table following paragraph 506 ante.

as 1 in 26; in 1876 as 1 in 27; and in 1875 as 1 in 34. It should, however, be stated that the fact of a birth being illegitimate is not always recognizable except by a very careful examination of the registers, and it is possible that previous returns did not show the full extent to which illegitimacy prevailed, and that portion, at any rate, of the apparent increase during 1879 and 1880 may have resulted from the fact of the scrutiny having been closer than in former years.* In the last eleven years, out of 295,861 infants born, 10,624 were traced as having been born out of wedlock, which numbers furnish a proportion of 1 illegitimate child to every 28 births.

515. According to a calculation, the basis of which I have more than once explained,† it follows, from the number of births of legitimate children, that, approximately, 82,704 married women at the fruitful or child-bearing age were living in the colony during 1880, and from the number of births of illegitimate children that, exclusive of public prostitutes, who, as they rarely have children, are omitted from the computation, at least 4,166 single women at a similar period of life were living in concubinage. The total number of single women between 15 and 45 years of age may be estimated to have been about 95,000 during the year. It therefore follows that 1 out of every 23 of these was living immorally.

Women living in concubinage.

516. 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 living in Victoria, according to the returns of the last eight years:—

Illegitimacy and concubinage, 1873 to 1880.

ILLEGITIMACY AND CONCUBINAGE, 1873 TO 1880.

Year.	Illegitimate Births.		Women Living in Concubinage (exclusive of Public Prostitutes).	
	Total Number.	Percentage of Total Births.	Estimated Total Number.	Number per 100 of Single Women between 15 and 45 Years of Age Living in Victoria.
1873	893	3·18	2,967	4·54
1874	984	3·67	3,269	4·41
1875	779	2·92	2,586	3·36
1876	975	3·64	3,239	4·02
1877	1,010	3·88	3,355	3·85
1878	1,103	4·15	3,664	4·20
1879	1,304	4·86	4,332	4·78
1880	1,254	4·80	4,166	4·39
Means	1,038	3·89	3,447	4·19

* For many reasons, statistics of illegitimacy generally understate the truth. See remarks upon the subject in the *Victorian Year-Book*, 1877-8, paragraph 259.

† See *Victorian Year-Book*, 1873, paragraph 286, and *Victorian Year-Book*, 1874, paragraph 490.

Illegitimacy
in Austral-
asian
colonies.

517. Besides Victoria, the only Australasian colonies which publish statistics of illegitimacy are apparently New South Wales, Queensland, and New Zealand. According to these, illegitimacy was, over a series of years, most rife in New South Wales, next so in Victoria, next in Queensland, and least of all in New Zealand. The following table shows the percentage of illegitimate to the total births in the four colonies named during each of the eight years ended with 1879:—

ILLEGITIMACY IN AUSTRALASIAN COLONIES, 1872 TO 1879.

Year.			Illegitimate Births to every 100 Children Born.			
			Victoria.	New South Wales.	Queensland.	New Zealand.
1872	...	...	2·99	4·03	2·92	...
1873	...	...	3·18	4·15	2·71	1·42
1874	...	...	3·67	4·22	2·76	1·30
1875	...	...	2·92	4·20	3·43	1·36
1876	...	...	3·64	4·08	3·21	2·23
1877	...	...	3·88	4·14	3·64	2·08
1878	...	...	4·15	4·03	3·68	2·41
1879	...	...	4·86	4·51	4·31	2·30
Means	...	...	3·66	4·17	3·33	1·87

Illegitimacy
in United
Kingdom.

518. Illegitimacy in England and Wales appears to be commoner than, and in Scotland more than twice as rife as, it is in any of the Australasian colonies named. In Ireland, on the other hand, if the figures are reliable, it is less prevalent than in any of those colonies, except New Zealand. This will be observed by comparing the following table with the previous one:—

ILLEGITIMACY IN ENGLAND, SCOTLAND, AND IRELAND,
1871 TO 1878.

Year.			Illegitimate Births to every 100 Children Born.		
			England and Wales.	Scotland.	Ireland.
1871	...	...	5·6	9·5	2·7
1872	...	...	5·4	9·1	2·5
1873	...	...	5·2	9·0	2·4
1874	...	...	5·0	8·7	2·3
1875	...	...	4·8	8·6	2·3
1876	...	...	4·7	8·6	2·3
1877	...	...	4·7	8·4	2·4
1878	...	...	4·7	8·4	2·3
Means	...	...	5·0	8·8	2·4

519. 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 1880, in the metropolitan district about 1 birth in 13, in extra-metropolitan towns 1 birth in 22, and in country districts 1 birth in 35, was registered as illegitimate. In the previous year the proportions were 1 in 12, 1 in 24, and 1 in 37 respectively.

Illegitimacy in town and country.

520. According to the registrations, births in Victoria are always most numerous in the winter quarter, and next to that in the autumn quarter. The proportion of births in the spring and summer quarters varies in different years, the advantage being generally slightly in favor of the former. The following are the numbers and percentage for 1880 and the percentage for the previous decennial period:—

Births in each quarter.

BIRTHS IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—			Year 1880.		Percentage in Ten Years: 1870 to 1879.
				Number of Births.	Percentage.	
Summer	...	March	...	5,927	22·67	23·75
Autumn	...	June	...	6,786	25·95	24·94
Winter	...	September	...	7,125	27·25	27·21
Spring	...	December	...	6,310	24·13	24·10
		Year	...	26,148	100·00	100·00

521. The deaths in 1880 numbered 11,652, as against 12,120 in 1879. The decrease in the year under notice was thus 468.

Deaths, 1880.

522. The deaths in 1880 were less numerous than in any year of the previous sexenniad, but more so than in any year prior to that period except 1860. It may be observed that the year in which the highest mortality occurred was 1875, when epidemics of measles and scarlatina prevailed, and the deaths numbered 15,287, or nearly a third more than in the year under review.*

Deaths, 1880 and former years.

523. The births in 1880 exceeded the deaths by 14,496, or 125 per cent., as against 121 per cent. in 1879. In the eleven years ended with 1880 the proportion was 122 per cent. The following were the births and deaths in each of those eleven years and the excess of the former

Excess of births over deaths.

* For the number of deaths during each year since the first settlement of Port Phillip, see Statistical Summary of Victoria (first folding sheet) ante.

over the latter. It will be noticed that the births more than doubled the deaths in all the years except 1875 and 1876, when the mortality was swelled by the presence of epidemics:—

EXCESS OF BIRTHS OVER DEATHS, 1870 TO 1880.

Year.	Births.	Deaths.	Excess of Births over Deaths.	
			Numerical.	Centesimal.
1870 ...	27,151	10,420	16,731	161
1871 ...	27,382	9,918	17,464	176
1872 ...	27,361	10,831	16,530	153
1873 ...	28,100	11,501	16,599	144
1874 ...	26,800	12,222	14,578	119
1875 ...	26,720	15,287	11,433	75
1876 ...	26,769	13,561	13,208	97
1877 ...	26,010	12,776	13,234	104
1878 ...	26,581	12,702	13,879	109
1879 ...	26,839	12,120	14,719	121
1880 ...	26,148	11,652	14,496	125
Total in 11 years	295,861	132,990	162,871	122

Excess of
births over
deaths in
Austral-
asian
colonies.

524. Of the Australasian colonies, New Zealand is the one in which over a series of years the births exceeded the deaths by the highest proportion. This is due to the high birth rate and low death rate prevailing in that colony, both of which are favored by the circumstance that an abnormally large proportion of the population, resulting from the number of immigrants introduced at the expense of the State, consists of persons at the reproductive period of life, which, being also the strongest, is that at which fewest deaths occur. The low death rate is no doubt also promoted by the salubrity of the climate of New Zealand, but still more so by the circumstance of the population being spread over the country or dispersed throughout a number of small towns, instead of being to a great extent crowded into a few large cities, as is generally the case in the other colonies. The position of Victoria in regard to the proportionate increase of births over deaths is above that of Western Australia or Tasmania, but below that of the other four colonies. The following table shows the percentage of excess of births over deaths in each of the Australasian colonies during the respective years 1873 to 1879, 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,
1873 TO 1879.

Colony.	Excess of Births over Deaths.							Mean of Seven Years.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1. New Zealand...	208	209	153	230	260	283	224	224
2. South Australia ...	170	124	84	132	167	148	177	143
3. New South Wales ...	182	156	109	108	142	135	164	142
4. Queensland ...	154	128	63	99	113	75	145	111
5. Victoria ...	144	119	75	97	104	109	121	110
6. Western Australia ...	94	80	61	140	111	121	138	106
7. Tasmania ...	103	83	49	82	58	106	111	85

525. The following table shows the mean annual percentage of excess of births over deaths during a series of years in certain European countries. It will be observed that deaths bear a much larger proportion to births in every one of those countries than they do in any of the Australasian colonies, but at the present time it cannot be ascertained how much of the difference may be due to the Australian climate being more healthy and the circumstances of the colonies more favorable to longevity, and how much to the fact that the countries named contain a larger proportion than the colonies of the young and the very old. The proportionate excess of births over deaths is highest in Scotland, next highest in England, Ireland, and Denmark; and lowest in France, where the births annually exceed the deaths by only 8 per cent.*:—

Excess of births over deaths in European countries.

EXCESS OF BIRTHS OVER DEATHS IN EUROPEAN COUNTRIES.

Country.	Years over which the Average extends.		Mean Annual Excess of Births over Deaths.
	Number.	Period.	
England and Wales ...	23	1853 to 1875	57
Scotland... ..	22	1855 to 1876	59
Ireland	11	1865 to 1875	57
Denmark	26	1850 to 1875	57
Sweden	26	1850 to 1875	56
Austria	23	1853 to 1875	23
Prussia	23	1853 to 1875	40
The Netherlands ...	23	1853 to 1875	36
France	23	1853 to 1875	8
Spain	10	1861 to 1870	25
Italy	13	1863 to 1875	23

526. In Victoria, deaths of males in 1880 numbered 6,610, and deaths of females, 5,042. These numbers furnish a proportion of 76 females to every 100 males, as against 72 in the previous year. Females in

Deaths of males and females.

* See also paragraph 502 ante.

the total population are in the proportion of 91 to every 100 males; therefore more males and fewer females died in both years than their relative numbers in the population might have given reason to expect.

Annual
death rate.

527. The following table shows the death rate of males and females, and of both sexes, during each of the past twenty years. It will be observed that in 1880 the death rate of both males and females was lower than in any previous year in the vicenniad, except 1871. It will also be noticed that the death rate in all the years, except 1861 and 1862, bore more hardly upon males than upon females :—

ANNUAL DEATH RATE,* 1861 TO 1880.

Year.	Estimated Mean Population.		Number of Deaths.		Deaths per 1,000 of the Mean Population.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1861 ...	324,988	214,836	6,124	4,398	18·84	20·47	19·49
1862 ...	322,916	225,164	5,900	4,180	18·27	18·56	18·39
1863 ...	325,680	237,280	5,646	3,856	17·34	16·25	16·88
1864 ...	335,272	251,178	5,202	3,685	15·51	14·67	15·15
1865 ...	347,083	264,135	6,158	4,303	17·74	16·29	17·11
1866 ...	353,941	275,097	7,016	5,270	19·82	19·16	19·53
1867 ...	359,642	284,634	6,613	5,120	18·39	17·99	18·21
1868 ...	367,752	295,340	5,865	4,202	15·95	14·23	15·18
1869 ...	379,396	307,806	6,221	4,409	16·40	14·32	15·47
1870 ...	392,159	321,036	6,114	4,306	15·59	13·41	14·61
1871 ...	403,319	333,686	5,845	4,073	14·49	12·21	13·46
1872 ...	409,081	344,117	6,308	4,523	15·42	13·14	14·38
1873 ...	412,597	352,914	6,565	4,936	15·91	13·99	15·02
1874 ...	416,725	360,931	6,994	5,228	16·78	14·48	15·72
1875 ...	419,779	367,558	8,563	6,724	20·40	18·29	19·42
1876 ...	422,931	373,627	7,716	5,845	18·24	15·64	17·02
1877 ...	427,727	380,878	7,345	5,431	17·17	14·26	15·80
1878 ...	433,153	388,313	7,179	5,523	16·57	14·22	15·46
1879 ...	438,563	395,467	7,033	5,087	16·04	12·86	14·53
1880 ...	446,445	403,898	6,610	5,042	14·81	12·48	13·70
Mean of twenty years ...					16·98	15·35	16·23

NOTE.—In 1861, 1866, and 1875, and to a certain extent in the preceding and in the succeeding years, the death rate was swelled by epidemics of measles and scarlatina.

Normal
death rate.

528. However favorable may be the circumstances for prolonging life, as all must die at some time or other, it is evident that every country must have a death rate; but, as I have mentioned on former occasions,† it has been held by high authority that 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 this death rate to be in the proportion of

* For total of mean population in each year, see table "Breadstuffs available for consumption," in Part IX., Production, *post*; for total number of deaths, see Statistical Summary (first folding sheet) at commencement of this work; or the totals may be obtained by adding the males and females together.

† See *Victorian Year-Book*, 1875, paragraph 342, *Victorian Year-Book*, 1876-7, paragraph 169, and *Victorian Year-Book*, 1877-8, paragraph 271; also page ix of Dr. Farr's letter dated 5th February 1875, published in the Supplement to the 35th Annual Report of the Registrar-General of England. London: Eyre and Spottiswoode, 1875.

about 17 per 1,000 persons living. It should, however, be borne in mind that death rates based merely upon the total population, in common with birth and marriage rates calculated upon a like basis, are not always fair tests of the state of a community. If the proportion of very young or old people is high, the death rate will be also high; but if, on the other hand, the number of persons at the middle ages is excessive, the death rate will be low. Until the compilation of the results of the census just taken is more advanced, the present condition of the people of Victoria as regards age cannot be definitely known. It will, however, be remarked that the mortality exceeded 17 per 1,000 seven times in the twenty years named in the table. In 1880 it was $3\frac{1}{2}$ deaths below that proportion, and, according to the average annual mortality of the vicenniad, it was lower than it by a fraction.

529. The following table shows the death rates of the different Australasian colonies during the eleven years ended with 1879. It will be observed that the death rate in all the colonies was exceedingly low in the last year named; also that over a series of years the average death rate of all the colonies except Queensland is below 17 per 1,000:—

Death rates in Australasian colonies.

DEATH RATES IN AUSTRALASIAN COLONIES, 1869 TO 1879.*

Year.	Number of Deaths per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland	South Australia.	Western Australia.	Tasmania.	New Zealand.
1869 ...	15·47	14·05	16·20	12·37	...	13·20	11·73
1870 ...	14·61	13·27	14·59	13·94	...	13·88	11·13
1871 ...	13·46	12·54	14·83	12·87	...	13·38	10·13
1872 ...	14·38	14·11	14·97	15·33	14·02	13·79	11·68
1873 ...	15·02	13·84	16·06	13·48	16·24	14·52	12·67
1874 ...	15·72	15·12	17·98	17·05	18·74	16·21	13·05
1875 ...	19·42	18·09	23·80	19·45	17·88	20·00	15·92
1876 ...	17·02	18·11	18·82	16·28	14·18	16·54	12·66
1877 ...	15·80	15·28	17·29	13·99	15·70	19·17	11·47
1878 ...	15·46	15·88	20·41	15·44	14·07	15·66	11·01
1879 ...	14·53	14·29	14·97	14·09	14·46	15·18	12·46
Means ...	15·54	14·96	17·27	14·94	15·66	15·59	12·17

530. That like causes are at work in the various colonies to swell or diminish the rate of mortality appears evident from the fact that in nearly all the mortality gradually declined from 1868 to 1871, when the rate in every colony was unusually low, and in many cases the minimum of the period, but that it again increased gradually to a high rate in 1875. It should be mentioned that epidemics of measles and scarlatina prevailed in 1867 and 1875. Moreover, in looking at the increased mortality at the latter period, due principally to the

High and low death rates coincident in Australasian colonies.

* For the number of deaths in the various colonies during the eight years ended with 1880, see General Summary of Australasian Statistics (third folding sheet) ante.

presence of these epidemics, it would seem that the causes referred to first appeared in Western Australia, and swept easterly over the whole continent—thus a sudden increase of mortality occurred in Western Australia in 1874, in South Australia between 1874 and 1875, in Victoria and the other colonies, except New South Wales, in 1875, extending partly into 1876, and in New South Wales in 1875 and 1876, distributed equally over the two years; and in nearly every instance the high mortality subsided in 1877 to about the average.

Order of colonies in respect to death rates.

531. The following is the order of the colonies in reference to their respective death rates in the last year shown in the table, and according to the average of the whole period of eleven years. The colony with the lowest rate is placed first, and that with the highest last. It will be noticed that Victoria occupies the fifth place in the list for 1879, and the fourth in that showing the average during eleven years:—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO DEATH RATES.

Order in 1879.

1. New Zealand.
2. South Australia.
3. New South Wales.
4. Western Australia.
5. Victoria.
6. Queensland.
7. Tasmania.

Order over a Series of Years.

1. New Zealand.
2. South Australia.
3. New South Wales.
4. Victoria.
5. Tasmania.
6. Western Australia.
7. Queensland.

Death rate in Australia and Australasia.

532. 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. The increased mortality during the years when epidemics prevailed and its subsequent diminution will be at once noticed:—

DEATH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1879.

Year.	Number of Deaths per 1,000 of Mean Population.	
	Continent of Australia.	Australia with Tasmania and New Zealand.
1873	14·43	14·20
1874	15·73	15·36
1875	19·08	18·63
1876	17·12	16·37
1877	15·23	14·77
1878	15·72	14·94
1879	14·06	13·84
Means	15·91	15·44

533. The following table shows the death rate 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 certain British possessions.

DEATH RATES IN CERTAIN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Deaths per 1,000 of the Population.
Ceylon	1867-76	21·62
Straits Settlements	1873-7	19·96
Hong Kong	1875	25·87
Mauritius	1871-7	28·34
Seychelles	1875-7	22·40
St. Helena	1871-5	13·21
Bermudas	1871-5	24·07
British Guiana	1871-9	34·47
West Indies—		
Bahamas	1874-5	22·60
Jamaica	1878	21·9
St. Lucia	1869-79	28·4
St. Vincent	1870-9	28·4
Barbadoes	1872-8	23·76
Grenada	1871-5	27·82
Antigua	1875-6	32·87
Montserrat	1874-5	20·44
Dominica	1871-6	18·53
Trinidad	1871-6	34·14

534. In all the European countries of which the information is at hand, except Ireland, the mean annual death rates are much higher than in any of the Australasian colonies. In Ireland the average rate is apparently the same as in Queensland; but this may perhaps not really be the case, it being an admitted fact that the registrations of Ireland are defective.* Omitting Ireland, it will be observed from the following table that in not one of the countries do the figures show an approach to so low a death rate as 17 per 1,000 in any year, except Sweden, during the three years 1871 to 1873, and only in one of these did the rate actually fall as low as 17 per 1,000; whilst in Hungary, on the other hand, the average death rate per 1,000, extending over a series of years, amounts to considerably more than twice that number:—

Death rates in European countries.

* See 11th Detailed Report of the Registrar-General of Ireland, page 15; also his 12th Report, page 31.

DEATH RATES IN EUROPEAN COUNTRIES, 1868 to 1878.

Years.	Number of Deaths per 1,000 of Mean Population.														
	England and Wales.	Scotland.	Ireland.*	Denmark.	Sweden.	Austria.	Hungary.	Switzerland.	Prussia.	German Empire.	Belgium.	The Netherlands.	France.	Spain.	Italy.
1868...	21·9	21·2	15·8	19·3	21·0	29·3	33·8	...	27·3	...	21·7	24·8	24·0	32·6	30·5
1869...	22·3	23·0	16·4	19·1	22·3	28·9	32·0	...	25·9	...	21·8	23·0	23·5	32·6	27·7
1870...	22·9	22·2	16·7	19·1	19·8	29·2	32·6	25·8	25·9	...	23·3	25·7	28·3	30·1	29·8
1871...	22·6	22·2	16·4	19·5	17·2	30·0	39·0	27·6	28·4	...	28·5	29·4	34·8	...	30·0
1872...	21·3	22·3	18·1	18·3	16·3	32·4	42·3	22·2	29·3	29·0	23·2	25·7	22·0	...	30·7
1873...	21·1	22·4	18·3	18·6	17·2	38·5	65·1	22·7	28·0	28·2	21·5	24·0	23·3	...	30·0
1874...	22·3	23·3	17·3	19·9	20·3	31·3	42·6	22·3	25·8	26·7	20·5	22·6	21·5	...	30·3
1875...	22·8	23·4	18·5	21·0	20·2	29·7	37·2	24·1	26·4	27·6	22·7	25·4	23·1	...	30·7
1876...	21·0	21·0	17·3	19·7	19·5	29·4	35·0	24·2	25·4	26·3	21·9	23·3	22·7	...	28·7
1877...	20·4	20·8	17·5	18·7	18·5	31·1	36·3	23·5	25·5	26·6	21·1	22·0	21·7	...	28·1
1878...	21·7	21·4	18·6	18·5	18·0	31·1	...	23·4	25·7	26·2	21·5	22·8	22·6	...	28·8
Means	21·8	22·1	17·4	19·2	19·1	31·0	39·6	24·0	26·7	27·2	22·5	24·4	24·3	31·8	29·6

NOTE.—The mortality of Sweden was increased by small-pox in 1874; that of Austria by cholera in 1873; that of Hungary by cholera in 1873 and 1874; that of Prussia by war in 1870 and 1871, and by cholera in 1873; that of Belgium by small-pox in 1871; that of the Netherlands by small-pox in 1871; that of France by war in 1870 and 1871.

Low European death rate in 1877 and 1878.

535. It will be observed that the death-rate in 1878 was below the average in all the countries named, except Ireland* and Austria. In Denmark, Sweden, Switzerland, and the German Empire, it was even lower than in 1877, in which year the death rates generally were extremely low, and in Austria it was the same as in 1877; but in the remaining countries for which the returns are complete it was higher than in that year.

Death rate in United Kingdom.

536. The death rate of the United Kingdom, according to the Reports of the Registrar-General of England, was as follows during each of the eight years ended with 1878. It will be observed that 1877 was the year in which the death rate was lowest:—

DEATH RATE IN THE UNITED KINGDOM, 1871 TO 1878.

Deaths per 1,000 of the Population				Deaths per 1,000 of the Population.			
1871	...	...	22·6	1877	...	...	20·0
1872	...	...	20·9	1878	...	...	21·2
1873	...	...	20·8				—
1874	...	...	21·6	Mean	...	...	21·2
1875	...	...	22·2				—
1876	...	...	20·5				—

* The registrations in Ireland are admitted to be defective.—See 11th Detailed Report of the Registrar-General of Ireland, page 15; also his 12th Report, page 31.

537. In every country the death rate is higher in towns than it is in the country districts. This circumstance, though 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 1880, the death rate was somewhat higher in Melbourne and suburbs than in the country towns, but in both it was very much higher than in the country districts. The following are the figures for 1880:—

Death rates in town and country, 1880.

DEATHS IN URBAN AND COUNTRY DISTRICTS, 1880.

Districts.	Estimated Mean Population.	Deaths, 1880.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs ...	277,200	5,184	18·70
Towns outside Melbourne and suburbs	189,642	3,349	17·65
Country districts ...	383,501	3,119	8·13
Total ...	850,343	11,652	13·70

538. The death rates of the metropolitan and extra-metropolitan towns and country districts of Victoria were as follow, during each of the last eight years. The calculations have been based on estimates of population amended in accordance with the results of the census of 1881:—

Death rate in town and country, 1873 to 1880.

DEATH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1880.

Years.	Number of Deaths per 1,000 of the Estimated Population.			
	Melbourne and Suburbs.	Towns outside of Melbourne and Suburbs.	Country Districts.	Total of Victoria.
1873 ...	19·86	18·50	9·65	15·02
1874 ...	21·27	20·47	9·09	15·71
1875 ...	25·82	26·03	11·24	19·42
1876 ...	21·84	23·00	10·45	17·02
1877 ...	21·18	20·07	9·86	15·80
1878 ...	20·12	20·21	9·83	15·46
1879 ...	19·23	18·65	9·17	14·53
1880 ...	18·70	17·65	8·13	13·70

NOTE.—In 1875, and to a certain extent in the preceding and succeeding years, the death rate was swelled by epidemics of measles and scarlatina.

Normal death rate in town and country.

539. It will be noticed that the death rate in Melbourne and suburbs is usually slightly higher than in the other town districts; but in all the urban districts it is invariably much above the normal 17 per 1,000 persons living, whilst in country districts it is always very considerably below that rate. In 1880, and to a less extent in the previous year, the deaths in both town and country were much below the average.

Death rates in Melbourne and suburbs.

540. The following table shows the mean population, the number of deaths, and the death rate in 1880, also the death rate during the period of nine years between 1871 and 1879, in the different municipalities, &c., forming the component parts of the district of Melbourne and suburbs. 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 in the districts where they occurred, but are shown separately near the end of the table:—

DEATH RATES IN MELBOURNE AND SUBURBS, 1871 TO 1880.

Sub-districts.	Year 1880.			Nine Years: 1871 to 1879.
	Estimated Mean Population.	Deaths.		
		Total Number.	Number per 1,000 of the Population.*	
Melbourne City	64,032	970	15·15	16·90
Hotham Town	16,877	285	16·89	17·39
Fitzroy City	22,594	386	17·08	18·85
Collingwood City	23,439	439	18·73	20·31
Richmond Town	22,907	351	15·32	17·74
Brunswick Borough	6,054	85	14·04	14·70
Prahran City	20,639	285	13·81	17·31
Emerald Hill Town	24,760	404	16·32	16·55
Sandridge Borough	8,593	146	16·99	17·50
St. Kilda Borough	11,470	144	12·55	14·20
Brighton Borough	4,630	64	13·82	14·02
Essendon and Flemington Borough	4,867	60	12·33	18·85
Hawthorn Borough	5,816	91	15·65	17·13
Kew Borough	3,346	29	8·67	12·21
Footscray Borough	5,730	77	13·44	17·29
Williamstown Borough	8,890	148	16·65	18·10
Remainder of district	17,680	184	10·41	12·05
<i>Hospitals, asylums, &c.†</i>	3,398	1,032	...	...
Shipping in Hobson's Bay and river	1,478‡	4	2·70	4·20
Total	277,200	5,184	18·70	20·61

Low death rate, 1880.

541. It will be observed that in 1880 the death rate in every sub-district of Melbourne and suburbs was below the average of the previous nine years.

* In order to compare the death rate with density of population, see also paragraph 66 *ante*.

† Includes the Melbourne, Alfred, Lying-in, and Children's Hospitals, the Immigrants' Home, and the Carlton Lunatic Asylum (closed in 1873)—all situated in Melbourne City; the Benevolent Asylum, which is on the boundary between Hotham Town and Melbourne City; the Metropolitan Lunatic Asylum, which is in Kew Borough; and the Yarra Bend Lunatic Asylum, which is in "Remainder of district."

‡ Figures showing the population of shipping at census of 3rd April 1881.

542. The only sub-district which had, according to the average of nine years, a higher death rate than 20 per 1,000 is the low-lying and still imperfectly drained locality of Collingwood; the next highest death rate prevailed in the neighboring city of Fitzroy and the rural suburb of Essendon and Flemington, and the next in the shipping town of Williamstown. In 1880, Collingwood and Fitzroy still maintained the highest death rates; but the rate in Essendon and Flemington was comparatively low. The lowest death rate, both during 1880 and the period of nine years, was in the shipping; the next during 1880 in Kew; the next in the portion of the district not included in any city, town, or borough; the next in Essendon and Flemington; the next in St. Kilda; the next in Footscray; and the next in Prahran and Brighton. During the period of nine years, after the shipping, the lowest death rate was in the "remainder of district"; the next in Kew; the next in Brighton; and the next in St. Kilda.

Places in which death rate was highest and lowest.

543. The death rate of the whole district, in the calculation of which the deaths in charitable institutions are included, was a fraction under 19 per 1,000 persons living in 1880, and a fraction under 21 per 1,000 in the preceding period of nine years. During the last-named period the annual death rate was over 17 per 1,000 in all the sub-districts, except Melbourne, Emerald Hill, Brunswick, St. Kilda, Brighton, Kew, the "remainder of district," and the shipping; but during 1880 it was over 17 per 1,000 in only two sub-districts, viz., Collingwood and Fitzroy. In considering the death rate of the individual districts, the hospitals, asylums, &c., have been eliminated.

Sub-districts with death rates over 17 per 1,000.

544. The average mortality of Melbourne and suburbs, taken as a whole, is lower than that of most towns in the United Kingdom. In the following list, which shows the death rate of 23 such towns, the only towns with a lower average death rate than Melbourne and suburbs are Portsmouth and Brighton:—

Death rates in towns of United Kingdom.

DEATH RATES IN TWENTY-THREE TOWNS OF THE UNITED KINGDOM, 1873 TO 1877.

	Annual Deaths per 1,000 of the Population.	Annual Deaths per 1,000 of the Population.	
Portsmouth ...	... 19·56	Bradford ...	... 24·92
Brighton ...	... 19·82	Birmingham ...	... 25·02
Plymouth ...	... 21·26	Oldham ...	... 25·88
Edinburgh ...	... 22·18	Leeds ...	... 26·02
Sunderland ...	... 22·44	Newcastle-on-Tyne ...	... 26·12
Norwich ...	... 22·48	Dublin ...	... 26·50
London ...	... 22·58	Salford ...	... 27·52
Nottingham ...	... 23·22	Glasgow ...	... 27·78
Bristol ...	... 23·40	Liverpool ...	... 27·90
Leicester ...	... 23·94	Manchester ...	... 29·40
Hull ...	... 24·28		
Wolverhampton ...	... 24·34	Mean of towns named	24·40
Sheffield ...	... 24·74		

Deaths in
each month.

545. 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 a series of years, the months in which most deaths occur appear to be January, March, April, and February in the order named, but, in the year under review, the last two of these were less fatal than the months of December and August. The number of deaths in each month of 1880, and their percentage to the total number in the year, also the percentage of the deaths in each month of the decenniad which preceded that year to the total number of deaths during the same period, will be found in the following table :—

DEATHS IN EACH MONTH.

Months.	Year 1880.		Percentage in Ten Years: 1870 to 1879.
	Number of Deaths.	Percentage.	
January	1,102	9·46	10·36
February	990	8·50	9·17
March	1,071	9·20	10·34
April	996	8·55	9·90
May	859	7·37	8·68
June	859	7·37	7·43
July	973	8·35	7·88
August	1,024	8·79	7·27
September... ..	916	7·86	6·65
October	884	7·59	7·02
November	944	8·10	6·94
December	1,034	8·86	8·36
Year	11,652	100·00	100·00

Deaths at
different
seasons.

546. In Victoria the summer is, to invalids and young children, the most trying portion of the year. It is not astonishing, therefore, that most deaths occur during that period. Next to the summer the autumn quarter is the most fatal, probably in part owing to the circumstance that some who had become debilitated during the summer linger on for some months later. In the United Kingdom, on the contrary, 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 preceding ten years; in England and Wales, according to the experience of thirty-one 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.*	Melbourne, Victoria.	Greenwich, England.	Deaths per 100 at all Seasons.				
	Mean Temperature in Shade.		Victoria.		England and Wales.	Scotland.	Ireland.
			Year 1880.	Average of Ten Years: 1870 to 1879.	Average of Thirty-one Years.	Average of Ten Years.	Average of Five Years.
Summer ...	65·2	60·5	27·08	29·59	23·24	22·34	20·21
Autumn ...	53·8	44·3	22·57	24·45	24·65	24·71	23·45
Winter ...	50·2	40·0	25·41	21·55	27·49	27·95	30·19
Spring ...	60·3	52·8	24·94	24·41	24·62	25·00	26·15
Year ...	57·6	49·4	100·00	100·00	100·00	100·00	100·00

547. The following table shows the number and percentage at various ages of the deaths registered in Victoria during the year 1880. It will be noticed that more than two-fifths of the males who died were under 15 years, and nearly two-fifths were over 45 years of age; also that of the females nearly half were under 15 years, and more than a fourth were between 15 and 45 years of age:—

DEATHS AT EACH AGE, 1880.

Ages.	Number of Deaths at each Age, 1880.			Percentage of Deaths at each Age.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years ...	2,416	2,105	4,521	36·55	41·75	38·80
5 years to 10 years ...	209	192	401	3·16	3·83	3·44
10 " 15 " ...	130	118	248	1·97	2·34	2·13
15 " 25 " ...	376	411	787	5·69	8·15	6·75
25 " 35 " ...	374	395	769	5·66	7·83	6·60
35 " 45 " ...	529	468	997	8·00	9·28	8·56
45 " 55 " ...	909	452	1,361	13·75	8·96	11·68
55 " 65 " ...	782	398	1,180	11·83	7·89	10·13
65 " 75 " ...	549	273	822	8·31	5·41	7·05
75 years and upwards ...	336	230	566	5·08	4·56	4·86
Total ...	6,610	5,042	11,652	100·00	100·00	100·00

548. The death rate at every period of life in Victoria, according to the average of the ten years which intervened between the censuses of 1861 and 1871, is less than in England and Wales. In England and

Death rate at different ages in Victoria and England.

* 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.

Wales the death rate of males exceeds that of females at all periods except those between 10 and 20, when the latter is greater, and between 20 and 35, when both are about equal; in Victoria the death rate of females is higher than of males between the ages of 20 and 35, only slightly lower between 10 and 15, but much lower at other periods:—

**MORTALITY PER 1,000 LIVING AT DIFFERENT AGES IN VICTORIA
AND ENGLAND.**

Ages.					Number of Deaths to every 1,000 Living, at each Age.			
					Victoria.		England and Wales.	
					Average of 10 Years. 1861 to 1871.		Average of 25 Years. 1848 to 1872.	
					Males.	Females.	Males.	Females.
All ages	...	...	...	...	16·68	16·13	23·5	21·4
Under 5 years	...	...	...	...	55·08	49·66	72·8	63·1
5 years to 10 years	...	...	...	...	7·52	6·95	8·5	8·2
10 " 15 "	...	...	...	...	3·27	3·25	4·7	4·8
15 " 20 "	...	...	...	...	4·22	3·65	6·5	7·0
20 " 25 "	...	...	...	...	5·50	5·89	8·8	8·7
25 " 35 "	...	...	...	...	7·85	8·28	9·9	9·9
35 " 45 "	...	...	...	...	12·09	11·12	13·3	12·1
45 " 55 "	...	...	...	...	17·52	13·20	18·6	15·6
55 " 65 "	...	...	...	...	29·71	21·98	31·0	28·2
65 " 75 "	...	...	...	...	53·79	43·10	67·7	57·2
75 years and upwards*	...	...	...	...	111·71	93·02	146·6	133·9

Deaths of octogenarians.

549. The persons who died at the age of 80 or upwards numbered 262 in 1880, as against 245 in 1879, 217 in 1878, and 216 in 1877. Those in the year under review comprised 156 males and 106 females. Ten males and 10 females had passed the age of 90, 1 male had reached, and 1 male had passed, the age of 100. The following are the exact ages recorded:—

NUMBER DYING AGED 80 OR UPWARDS, 1880.

Years of Age.	Males.	Females.	Years of Age.	Males.	Females.	Years of Age.	Males.	Females.
80	41	20	88	11	8	97	2	1
81	16	9	89	2	2	98	...	1
82	12	19	90	6	3	100	1	...
83	16	5	91	...	1	105	1	...
84	14	10	92	1	1	—	—	—
85	11	9	93	3	2			
86	9	7	94	1	2	Total	156	106
87	7	5	95	2	1			

* The figures in this line relating to England and Wales apply to males and females at from 75 to 85 only. The Victorian returns apply to all over 75.

550. In respect to 127 of these persons—viz., 71 males and 56 females—no other cause of death was set down than old age. Of actual complaints, the most common were affections of the lungs and of the brain. The number of deaths set down to each cause was as follows :—

Causes of death of octogenarians.

CAUSES OF DEATH OF PERSONS AGED 80 OR UPWARDS, 1880.

	Males.	Females.		Males.	Females.
Erysipelas ...	...	1	Heart diseases ...	8	5
Carbuncle ...	1	...	Lung diseases ...	26	14
Dysentery and diarrhoea	7	4	Stomach diseases ...	3	3
Cholera ...	...	1	Kidney diseases ...	3	...
Rheumatism ...	1	2	Skin diseases ...	1	...
Venereal diseases ...	2	...	Old age ...	71	56
Gout ...	1	...	Accidents ...	5	1
Dropsy ...	6	4	Suicide ...	1	...
Cancer ...	4	1	Unspecified ...	1	...
Mortification ...	...	1			
Phthisis ...	...	1	Total ...	156	106
Brain diseases ...	15	12			

551. The death rate of infants in 1880 was lower than in the three preceding years, and was also below the average. The total number who died under 1 year of age was 3,105, and as the births numbered 26,148, it follows that 1 infant died to every 8 births, or 11·86 infants to every 100 births. In the eleven years 1869 to 1879 the proportion of infants dying before completing their first year was 12·18 to every 100 births.

Infantile mortality, 1880.

552. I have often pointed out that, in proportion to the number of infants born, the number who die before completing one year of life is greater in South Australia* than in any of the other Australasian colonies. This proportion in that colony, in the last year of which the records are at hand (1879), was below the average, but was still above that in any of the other colonies. The infantile death rate, calculated in a similar manner, was also below the average in Victoria and Queensland, but was above it in New South Wales, Tasmania, and New Zealand, as will be seen by the following table, which gives 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, except Western Australia (which does not publish any statement of the number of infants who die), for each of the eleven years ended with 1879. All the calculations were made in the office of the Government Statist, Melbourne :—

Infantile mortality in Australasian colonies.

* The high infantile death rate in South Australia was first pointed out in a paper, by the present writer, read before the Adelaide Philosophical Society (now the Royal Society of South Australia) on the 19th March 1878. Up to that date the fact seems to have been entirely unsuspected, and its announcement caused considerable discussion, together with some alarm, in that colony.

INFANTILE MORTALITY IN AUSTRALASIAN COLONIES.

Year.	Births.	Deaths at under 1 Year of Age.		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.		Total Number.	Number to 100 Births.
VICTORIA.									
1869	26,040	3,284	12·61	19,243	1,858	9·66	4,654	528	11·35
1870	27,151	3,203	11·80	19,648	1,867	9·50	4,905	526	10·72
1871	27,382	3,114	11·37	20,143	1,812	9·00	5,205	516	9·91
1872	27,361	3,334	12·19	20,250	2,116	10·45	5,265	578	10·98
1873	28,100	3,181	11·32	21,444	1,985	9·26	5,720	701	12·26
1874	26,800	3,341	12·47	22,178	2,428	10·95	6,383	776	12·16
1875	26,720	3,811	14·26	22,528	2,695	11·96	6,706	1,025	15·28
1876	26,769	2,980	11·13	23,298	2,629	11·28	6,903	994	14·40
1877	26,010	3,299	12·68	23,851	2,785	11·68	7,169	1,058	14·76
1878	26,581	3,262	12·27	25,328	3,126	12·34	7,397	1,234	16·68
1879	26,839	3,219	11·99	26,933	2,886	10·72	7,870	917	11·65
Sums and means } }	295,753	36,028	12·18	244,844	26,187	10·70	68,177	8,853	12·99
NEW SOUTH WALES.									
QUEENSLAND.									
SOUTH AUSTRALIA.									
TASMANIA.									
NEW ZEALAND.									
1869	6,976	911	13·06	2,859	291	10·18	9,718	957	9·85
1870	7,021	1,031	14·68	3,054	298	9·76	10,277	956	9·30
1871	7,082	961	13·57	3,053	260	8·52	10,592	882	8·33
1872	7,105	1,145	16·12	3,010	306	10·17	10,795	1,074	9·95
1873	7,107	990	13·93	3,048	266	8·73	11,222	1,213	10·81
1874	7,696	1,319	17·13	3,097	321	10·36	12,844	1,394	10·85
1875	7,408	1,343	18·13	3,105	407	13·11	14,438	1,816	12·58
1876	8,224	1,228	14·93	3,149	286	9·08	16,168	1,673	10·35
1877	8,640	1,212	14·03	3,211	365	11·37	16,856	1,527	9·06
1878	9,282	1,466	15·79	3,502	375	10·71	17,770	1,486	8·36
1879	9,902	1,217	12·29	3,564	384	10·77	18,070	1,941	10·74
Sums and means } }	86,443	12,823	14·83	34,652	3,559	10·27	148,750	14,919	10·03

Order of colonies in respect to infantile mortality.

553. The colonies named in the table stand in the following order in regard to the death rate of infants—the colony with the lowest average death rate being placed first, and the one with the highest last. The first three colonies have nearly the same average rates, as also have the fourth and fifth, whilst the rate in South Australia is much the highest :—

ORDER OF COLONIES IN REFERENCE TO INFANTILE MORTALITY.

- | | | |
|-----------------|---------------------|---------------------|
| 1. New Zealand. | 3. New South Wales. | 5. Queensland. |
| 2. Tasmania. | 4. Victoria. | 6. South Australia. |

Infantile mortality in United Kingdom.

554. In England and Wales the infantile mortality, although greater than in any of the colonies, is only slightly higher than in South Australia, deaths at under 1 year of age having occurred during the seven years 1870 to 1876 in the proportion of 15·3 to every 100 births. In Scotland, the infantile death rate, during the four years 1870 to 1873, was a

fraction higher than that in Victoria, being in the proportion of 12·55 to every 100 births. In Ireland, during the three years 1875 to 1877, the returns show only 9·5 deaths of infants to 100 births, but the registrations of Ireland are admittedly so defective that but little reliance can be placed on calculations based thereon.

555. The infantile mortality of large towns is naturally always greater than that in country districts. Thus the deaths at under 1 year of age in Melbourne and suburbs during the eight years ended with 1880 averaged nearly 17 per 100 births, whilst in the extra-metropolitan districts of Victoria the mortality of infants at the same period of life averaged only 10 $\frac{1}{6}$ per 100 births. The following table shows the death rate of infants in the metropolis and in the other districts of the colony during each of the eight years named :—

Infantile mortality in Melbourne and country.

INFANTILE MORTALITY IN AND OUTSIDE OF MELBOURNE AND SUBURBS, 1873 TO 1880.

Year.	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.
	Melbourne and Suburbs.			Victoria, outside Melbourne and Suburbs.		
1873 ...	8,007	1,277	15·95	20,093	1,904	9·48
1874 ...	7,946	1,480	18·63	18,854	1,861	9·87
1875 ...	8,227	1,546	18·79	18,493	2,265	12·25
1876 ...	8,202	1,339	16·33	18,567	1,641	8·84
1877 ...	8,295	1,407	16·96	17,715	1,892	10·68
1878 ...	8,636	1,297	15·02	17,903	1,965	10·98
1879 ...	8,829	1,467	16·61	18,010	1,752	9·73
1880 ...	8,645	1,439	16·65	17,503	1,666	9·52
Sums and means }	66,787	11,252	16·85	147,138	14,946	10·16

556. As compared with the births, the infantile mortality of Melbourne and suburbs is, on the average, greater than that of Portsmouth, Brighton, Plymouth, London, or Bristol, but is less than that of fifteen other English towns of which particulars are available. The following are the towns in question, arranged in order according to the infantile death rate prevailing within their respective limits ; the town with the lowest death rate being placed first, and that with the highest last. It is a remarkable fact that a low infantile death rate prevails in London, whilst that in Liverpool is higher than in any other large town in England :—

Infantile mortality in English towns.

INFANTILE MORTALITY IN TWENTY TOWNS OF ENGLAND,
1870 TO 1877.

	Deaths under 1 Year of Age to 100 Births.	Deaths under 1 Year of Age to 100 Births.	
Portsmouth ...	14·4	Newcastle-on-Tyne ...	18·4
Brighton ...	15·9	Nottingham ...	18·6
London ...	15·9	Salford ...	18·6
Plymouth ...	16·0	Norwich ...	18·8
Bristol ...	16·2	Manchester ...	19·2
Sunderland ...	16·8	Bradford ...	19·2
Wolverhampton ...	16·9	Leeds ...	19·6
Birmingham ...	17·7	Leicester ...	22·1
Hull ...	17·7	Liverpool ...	22·5
Sheffield ...	17·9		
Oldham ...	18·0	Mean of towns named	17·4

Deaths of
infants in
Lying-in
Hospital.

557. In the Lying-in Hospital, Melbourne, 532 children were born alive during 1880, and of these, 30, or over $5\frac{1}{2}$ per cent., died before leaving the institution. In 1879, 8 per cent., in 1878, $6\frac{1}{2}$ per cent., in 1877, 7 per cent., and in 1876 and 1875, 9 per cent., of the infants born in the Lying-in Hospital died therein. It may be pointed out, however, 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
Chinese
and Aborigines.

558. The deaths of Chinese recorded in 1880 amounted to 134, and those of Aborigines to 26. The former furnishes a proportion of 11·05 and the latter of 33·33 to every 1,000 of their numbers.* At the same time the proportion of deaths of all races to every 1,000 of the population was 13·70.

Ages of
Chinese and
Aborigines.

559. With the exception of 10 half-caste children, all the Chinese who died during the year were adults, as also were all the Aborigines, the youngest being over 15 years of age.

Average age
at death.

560. The average age at death in 1880 was 28·39 years, or 28 years and 5 months. For males the average age was 30·72 years, or 30 years and 9 months, and for females, 25·35 years, or 25 years and 4 months. The average age at which both males and females die in Victoria is becoming more advanced from year to year. This will be seen by the following figures :—

AVERAGE AGE AT DEATH IN VICTORIA.

	Males.	Females.
	Years.	Years.
23 years—1852 to 1875 ...	21·70	15·01
Year 1875 ...	24·28	18·23
" 1876 ...	26·81	21·84
" 1877 ...	28·60	23·06
" 1878 ...	29·54	23·24
" 1879 ...	30·65	24·71
" 1880 ...	30·72	25·35

* On the 3rd April 1881 the Chinese numbered 12,132 ; Aborigines, 780.

561. The causes of death in Victoria, as in the United Kingdom, are arranged in classes and orders, according to the system proposed by Dr. William Farr, F.R.S., then of the General Register Office, London, in conjunction with Dr. Marc d'Espine, and first made public by the former in his report, dated 15th February 1856, to the International Statistical Congress held in Paris in 1855-6. Classification of causes of death.

562. A Nosological Index was compiled by the present writer some years since, under the sanction of the then Registrar-General, Mr. W. H. Archer, to be used in connection with this classification in order to facilitate the bringing of all the circumstances resulting in death under one or other of the heads in the list, 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. Nosological Index.

563. Since the introduction of this system into Victoria in 1861, it has been adopted in all the Australasian colonies, and, as a consequence, the Nosological Index referred to has also come into use throughout the group.* Victorian index used throughout Australasia.

564. 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 1880, also the total number who died from each cause during the twenty-six years and a half ended with 1879 :— Causes of death classified.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT.
(26½ Years : 1853 to 1879 ; and Year 1880.)

Class.	Order.	Causes of Death.	Number of Deaths.		
			26½ Years : 1853-1879	Year 1880.	
			Total. †	Chinese.	Aborigines.
		All causes	274,250	11,652	26
		Specified causes	272,613	11,614	25
		CLASSES.			
I.	...	ZYMOTIC DISEASES :—Zymotici (ζύμη, leaven). Diseases that are either epidemic, endemic, or contagious, induced by some specific body, or by the want of, or by the bad quality of food	83,638	2,424	9
II.	...	CONSTITUTIONAL DISEASES : — Cachectici (καχεξία, bad habit of body). Sporadic diseases ; affecting several organs in which new morbid products are often deposited ; sometimes hereditary	36,091	2,027	13

* A copy of this Nosological Index was appended to the *Victorian Year-Book*, 1877-8, pp. 303 to 335.
† The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(26½ Years: 1853 to 1879; and Year 1880.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			26½ Years: 1853-1879	Year 1880.		
				Total. *	Chinese.	Aborigines.
CLASSES— <i>continued.</i>						
III.	...	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	91,888	4,729	59	7
IV.	...	DEVELOPMENTAL DISEASES:—Metamorphici (μεταμόρφωσις, change of form). Special diseases, the incidental result of the formative, reproductive, and nutritive processes	38,547	1,616	7	2
V.	...	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	22,449	818	18	2
ORDERS.						
I.	1	Miasmatic diseases:— Miasmatici (μίασμα, stain; defilement)	76,862	2,104	5	1
	2	Ethetic diseases:— Ethetici (ἐνθετος, put in; implanted)	716	49	2	...
	3	Dietic diseases:—Dietici (δίαιτα, way of life; diet)	4,524	198	1	...
	4	Parasitic diseases:— Parasitici (παράσιτος, parasite)	1,536	73	1	...
II.	1	Diathetic diseases:—Diathetici (διάθεσις, condition; diathesis)	7,411	533	13	...
	2	Tubercular diseases:— Phthisisici (φθίσις, wasting away)	28,680	1,494	26	13
III.	1	Brain diseases:—Cephalici (κεφαλή, head) ...	29,435	1,308	9	...
	2	Heart diseases:—Cardiaci (καρδία, heart) ...	12,477	709	17	...
	3	Lung diseases:—Pneumonici (πνεύμων, lung)	25,894	1,498	15	4
	4	Bowel diseases:—Enterici (έντερον, intestine)	19,404	916	10	2
	5	Kidney diseases:—Nephritici (νεφρός, kidney)	2,982	233	5	1
	6	Genetic diseases:—Aidoici (αἰδοῖα, pudenda)	474	17	...	...
	7	Bone and muscle diseases:—Myostici (μῦς, muscle; ὀστέον, bone)	647	29	1	...
	8	Skin diseases:—Chrotici (χρῶς, skin) ...	575	19	2	...
IV.	1	Developmental diseases of children:—Paidiaci (παῖδια, youth)	12,973	465	...	...
	2	Developmental diseases of women:—Gyniaci (γυνή, woman)	2,709	115	...	...
	3	Developmental diseases of old people:—Geratici (γῆρας, old age)	3,906	343	1	1

* The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(26½ Years: 1853 to 1879; and Year 1880.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			26½ Years: 1853-1879	Year 1880.		
				Total. *	Chinese.	Aborigines.
ORDERS—<i>continued.</i>						
IV.	4	<i>Diseases of nutrition</i> :—Atrophici (ἀτροφία, atrophy)	18,959	693	6	1
V.	1	<i>Accident</i> :—Tychici (τύχη, chance) ...	20,238	680	11	2
	2	<i>Battle</i> :—Polemici (πόλεμος, battle; fight) ...	...	...	...	...
	3	<i>Homicide</i> :—Androphonici (άνήρ, man; φονεύω, I kill)	474	19	2	...
	4	<i>Suicide</i> :—Autophonici (αὐτός, self; φονεύω, I kill)	1,665	118	5	...
	5	<i>Execution</i> :—Demiotici (δημιώτης, executioner)	72	1	...	...
DISEASES, ETC.						
I.	1	Small-pox	21	...	...	...
		Chicken-pox	40	...	...	...
		Measles	3,847	252	...	...
		Scarlatina	8,684	26	...	...
		Diphtheria	7,834	198	...	...
		Quinsy	607	4	...	...
		Croup	3,979	† 156	...	...
		Whooping-cough	4,298	179	1	...
		Typhoid fever, &c.	11,046	297	2	...
		Erysipelas	1,029	36	...	...
		Metria	691	20	...	...
		Carbuncle, boil, &c.	63	8	...	...
		Influenza, coryza, catarrh	871	22	1	...
		Dysentery	12,386	122	...	...
		Diarrhœa	17,714	604	...	1
		Cholera	1,236	54	...	...
		Ague	93	4	...	...
	Remittent fever	686	9	...	...
	Rheumatism	1,301	81	1	...	
	Miasmatic diseases not classed	436	32	...	...
	2	Syphilis	555	39	1	...
		Gonorrhœa, stricture of the urethra	159	10	1	...
		Glanders	2	...	...	...
	3	Privation	422	11	1	...
		Want of breast-milk	2,047	113	...	...
		Purpura and scurvy	276	9	...	...
		Alcoholism	1,751	64	...	...
Other dietic diseases		28	1	...	...
4	Thrush	961	23	...	...
	Worms, &c.	59	2	...	...
	Hydatids	496	48	1	...	
	Other parasitic diseases	20	...	...	...
II.	1	Gout	166	13	...	...
		Dropsy	2,007	† 78	2	...
		Cancer	4,233	383	11	...

* The Chinese and Aborigines are included in this column.

† Including 40 cases of "diphtheritic croup."

‡ Including 7 cases of beriberi, all Javanese sailors.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(26½ Years: 1853 to 1879; and Year 1880.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			26½ Years: 1853-1879	Year 1880.		
				Total. *	Chinese.	Aborigines.
<i>DISEASES, ETC.—continued.</i>						
II.	1	Tumor	387	41	...	...
		Polypus	9	2	...	...
		Noma	66	...	...	...
		Mortification	374	16	...	...
		Other diathetic diseases	169	...	...	...
	2	Scrofula	1,002	32	...	...
		Tabes mesenterica	2,176	86	...	1
		Phthisis	20,693	1,175	25	11
		Hydrocephalus	4,067	175	1	1
		Other tubercular diseases	742	26	...	...
III.	1	Cephalitis	4,454	254	...	...
		Apoplexy	4,939	254	2	...
		Paralysis	2,428	182	...	...
		Insanity †	255	...	...	...
		Chorea	43	2	...	...
		Epilepsy	1,093	69	...	...
		Convulsions	9,602	257	...	...
		Other diseases of the nervous system	6,621	290	7	...
	2	Pericarditis	707	40	1	...
		Aneurism	1,463	84	2	...
		Other diseases of the circulatory system	10,307	585	14	...
	3	Laryngitis	857	24	...	...
		Bronchitis	8,158	578	3	1
		Pleurisy	1,474	72	1	...
		Pneumonia	10,843	530	10	2
		Congestion of the lungs, pulmonary apoplexy	2,408	213	...	1
		Asthma	676	39	1	...
		Other diseases of the respiratory system	1,478	42	...	...
	4	Gastritis	2,559	147	1	...
		Enteritis	4,933	183	3	...
		Peritonitis	1,530	76	2	...
		Ascites	424	12	1	...
		Ulceration of intestines	381	18	...	...
		Hernia	383	22	...	...
		Ileus	758	64	1	...
		Intussusception	173	6	...	...
		Stricture of intestines	73	5	...	...
		Fistula	40	1	...	...
		Stomach diseases undefined	1,299	43	1	...
		Pancreas disease	13	...	...	...
		Hepatitis	2,171	76	...	...
		Jaundice, gallstone	858	42	...	...
		Liver disease undefined	3,719	216	1	2
		Spleen disease	90	5	...	...
	5	Nephritis	352	25	...	...
		Ischuria	63	2	...	...
		Nephria	893	107	4	1
		Diabetes	217	17	...	...

* The Chinese and Aborigines are included in this column.

† Deaths from this cause are now usually returned under other heads.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(26½ Years : 1853 to 1879; and Year 1880.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			26½ Years : 1853-1879	Total *	Chinese.	Aborigines.
DISEASES, ETC.—<i>continued.</i>						
III.	5	Stone, gravel	90	7	...	...
		Cystitis	300	25	...	...
		Other diseases of the urinary organs	1,067	50	1	...
	6	Ovarian dropsy	101	5	...	...
		Other diseases of the generative organs	373	12	...	...
	7	Arthritis	129	8	1	...
		Ostitis, périostitis	38	2	...	...
		Other diseases of the locomotive system	480	19	...	...
	8	Phlegmon, whitlow	51	...	1	...
		Ulcer	178	7	...	...
		Other diseases of the skin	346	12	1†	...
IV.	1	Premature birth... ..	5,011	326	...	...
		Cyanosis	332	25	...	...
		Spina bifida	221	10	...	...
		Other malformations	660	25	...	...
		Teething	6,738	79	...	...
		Other developmental diseases of children	11	...	...	...
	2	Paramenia	87	4	...	...
		Childbirth	2,621	111	...	...
		Other developmental diseases of adults	1	...	...	...
	3	Old age	3,906	343	1	1
	4	Atrophy and debility	18,959	693	6	1
V.	1	Fractures, contusions, &c.	6,944	269	7	...
		Wounds	494	26	...	...
		Burns and scalds	2,116	84	...	...
		Sunstroke	401	11	...	...
		Struck by lightning	35	3	...	...
		Poison	359	19	1	...
		Snake or insect bite	70	2	...	...
		Drowning	4,555	192	2	2
		Suffocation	1,498	57	...	...
		Other or unspecified accidents	3,766	17	1	...
	3	Murder, manslaughter, and justifiable homicide	474	† 19	2	...
	4	Wounds	494	34	...	...
		Poison	315	16	...	...
		Drowning	319	27	1	...
		Hanging	470	40	4	...
		Suicide by other means	67	1	...	..
	5	Judicial hanging	72	1	...	...
...	...	<i>Causes not specified</i>	1,637	38	2	1

565. The next table shows the same causes of death, arranged in the order of their fatality during 1880, with the numbers who died from each cause in that year, and during the twenty-six years and a half ended with 1879, also the order of fatality of the different causes during that period :—

Causes of death in order of fatality.

* The Chinese and Aborigines are included in this column. † Leprosy.
‡ Including 3 outlaws who were killed by the police.

CAUSES OF DEATH IN ORDER OF FATALITY.
(26½ Years : 1853 to 1879 ; and Year 1880.)

Order of Fatality.		Causes of Death in Order of Fatality, 1880.	Number of Deaths.	
26½ Years : 1853-1879.	Year 1880.		26½ Years : 1853-1879.	Year 1880.
1	1	Phthisis	20,693	1,175
3	2	Atrophy and debility	18,959	693
2	3	Accidents	20,238	680
4	4	Diarrhœa	17,714	604
8	5	Diseases of the organs of circulation not classed	10,307	585
11	6	Bronchitis	8,158	578
7	7	Pneumonia	10,843	530
20	8	Cancer	4,233	383
23	9	Old age	3,906	343
15	10	Premature birth	5,011	326
6	11	Typhoid fever, &c.	11,046	297
14	12	Diseases of the nervous system not classed ...	6,621	290
9	13	Convulsions	9,602	257
16	14	Apoplexy	4,939	254
18		Cephalitis	4,454	254
24	15	Measles	3,847	252
25	16	Diseases of the liver not classed	3,719	216
29	17	Congestion of lungs, pulmonary apoplexy ...	2,408	213
12	18	Diphtheria	7,834	198
17	19	Enteritis	4,933	183
28	20	Paralysis	2,428	182
19	21	Whooping-cough	4,298	179
21	22	Hydrocephalus	4,067	175
22	23	Croup	3,979	156
27	24	Gastritis	2,559	147
26	25	Childbirth and metria	3,312	131
5	26	Dysentery	12,386	122
35	27	Suicide	1,665	118
32	28	Want of breast-milk	2,047	113
49	29	Nephria	893	107
30	30	Tabes mesenterica	2,176	86
39	31	Aneurism	1,463	84
40	32	Rheumatism	1,301	81
13	33	Teething	6,738	79
33	34	Dropsy	2,007	78
31	35	Hepatitis	2,171	76
36		Peritonitis	1,530	76
38	36	Pleurisy	1,474	72
44	37	Epilepsy	1,093	69
34	38	Alcoholism	1,751	64
53		Ileus	758	64
43	39	Malformations	1,213	60
42	40	Cholera	1,236	54
45		Diseases of the urinary organs not classed ...	1,067	50
55	41	Venereal diseases	714	49
60	42	Hydatids	496	48
41	43	Diseases of the stomach not classed	1,299	43
37	44	Diseases of the respiratory system not classed	1,478	42
51		Jaundice, gall-stone	858	42
66	45	Tumor	387	41
56	46	Pericarditis	707	40
58	47	Asthma	676	39
46	48	Erysipelas	1,029	36
47	49	Scrofula	1,002	32
63		Miasmatic diseases not classed	436	32

CAUSES OF DEATH IN ORDER OF FATALITY—*continued.*
(26½ Years : 1853 to 1879 ; and Year 1880.)

Order of Fatality.		Causes of Death in Order of Fatality, 1880.	Number of Deaths.	
26½ Years : 1853-1879.	Year 1880.		26½ Years : 1853-1879.	Year 1880.
10	50	Scarlatina	8,684	26
54		Tubercular diseases not classed	742	26
71	51	Nephritis	352	25
73		Cystitis	300	25
52	52	Laryngitis	857	24
48	53	Thrush	961	23
50	54	Influenza, coryza, catarrh	871	22
67		Hernia	383	22
61	55	Diseases of locomotive system not classed	480	19
62		Murder, manslaughter, and justifiable homicide	474	19
68	56	Ulceration of intestines	381	18
76	57	Diabetes	217	17
69	58	Mortification	374	16
80	59	Gout	166	13
72	60	Skin diseases	346	12
70		Diseases of the organs of generation not classed	373	12
64	61	Ascites	424	12
65		Privation	422	11
74	62	Purpura and scurvy	276	9
57		Remittent fever	686	9
89	63	Carbuncle, boil	63	8
81		Arthritis	129	8
84	64	Stone, gravel	90	7
77		Ulcer	178	7
78	65	Intussusception	173	6
82	66	Ovarian dropsy	101	5
84		Spleen disease	90	5
86	67	Stricture of the intestines	73	5
83		Ague	93	4
85	68	Paramenia	87	4
59		Quinsy	607	4
89	69	Ischuria	63	2
90		Worms, &c.	59	2
92	68	Chorea	43	2
94		Ostitis, periostitis	38	2
100	69	Polypus	9	2
72		Execution	72	1
93	69	Fistula	40	1
95		Dietetic diseases not classed	28	1
75	...	Insanity	255	...
79	...	Diathetic diseases not classed	169	...
88	...	Noma	66	...
91	...	Phlegmon, whitlow	51	...
93	...	Chicken-pox, &c.	40	...
96	...	Small-pox	21	...
97	...	Parasitic diseases not classed	20	...
98	...	Pancreas disease	13	...
99	...	Developmental diseases of children not classed	11	...
101	...	Glanders	2	...
102	...	Developmental diseases of adults not classed...	1	...
Deaths from specified causes			272,613	11,614
Deaths from unspecified causes			1,637	38
Deaths from all causes			274,250	11,652

Death rate
from various
causes in
Victoria and
England.

566. 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 the number of persons dying from each cause in either country is compared with the number of persons living in the same country. The totals of each class and order are given, as also are some of the principal diseases. The Victorian results relate to the year 1880 and to the twenty-six years and a half ended with 1879, and the results for England and Wales to the twenty-five years ended with 1874:—

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

Class.	Order.	Causes of Death.	Number of Annual Deaths per 100,000 of Mean Population.		
			Victoria.		England and Wales.
			Year 1880.	Average of 26½ Years: 1853 to 1879.	Average of 25 Years: 1850 to 1874.
		All causes	1,370·27	1,680·79	2,228·28
		Specified causes	1,365·80	1,670·77	2,205·66
		CLASSES.			
I.	...	Zymotic diseases	285·06	512·59	503·87
II.	...	Constitutional diseases	238·37	221·19	420·54
III.	...	Local diseases	556·13	563·16	849·97
IV.	...	Developmental diseases	190·04	236·24	355·15
V.	...	Violent deaths	96·20	137·59	76·13
		ORDERS AND DISEASES.*			
I.	1	Miasmatic diseases	247·43	471·07	478·94
		Measles	29·64	23·58	42·82
		Scarlatina	3·06	53·22	} 103·80
		Diphtheria	23·28	48·01	
		Croup	18·35	24·39	24·06
		Whooping-cough	21·05	26·34	51·46
		Typhoid fever, &c.	34·93	67·70	50·39†
		Dysentery	14·35	75·91	6·72
		Diarrhœa	71·03	108·56	89·06
		Metria (see Childbirth and metria <i>infra</i>)	2·35	4·24	5·99
	2	Enthetic diseases (venereal diseases, &c.)	5·76	4·39	7·47
	3	Dietic diseases (privation, want of breast-milk, alcoholism, &c.)	23·29	27·73	11·36
	4	Parasitic diseases (thrush, hydatids, &c.)	8·58	9·41	6·10
II.	1	Diathetic diseases	62·68	45·42	84·25
		Dropsy	9·17	12·31	38·51
		Cancer, &c.	45·04	25·94	36·92
	2	Tubercular diseases	175·69	175·77	336·29
		Phthisis	138·18	126·82	256·72
		Hydrocephalus	20·58	24·93	37·07

* Particulars respecting some of the principal diseases only are given.

† The death rate from typhoid fever is given for the eight years ended with 1877. Prior to 1870, it was not separated from typhus in the English returns.

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

Class.	Order.	Causes of Death.	Number of Annual Deaths per 100,000 of Mean Population.		
			Victoria.		England and Wales.
			Year 1880.	Average of 26½ Years: 1853 to 1879.	Average of 25 Years: 1850 to 1874.
		ORDERS AND DISEASES*—<i>continued.</i>			
III.	...	Diseases of the systems—			
	1	Nervous (brain diseases, &c.) ...	153·82	180·40	280·79
	2	Circulatory (heart diseases, &c.) ...	83·38	76·47	94·97
	3	Respiratory (lung diseases, &c.) ...	176·17	158·69	327·31
	4	Digestive (stomach, bowels—diseases, &c.) ...	107·72	118·92	100·53
	5	Urinary (kidney, bladder—diseases, &c.) ...	27·40	18·27	27·26
	6	Generative (ovarian dropsy, &c.) ...	2·00	2·90	5·70
	7	Locomotive (arthritis, ostitis, &c.) ...	3·41	3·97	7·74
	8	Integumentary (phlegmon, ulcer, &c.) ...	2·23	3·52	5·70
IV.	...	Developmental diseases—			
	1	Of children (malformation, teething, &c.) ...	54·68	79·51	87·01
	2	Of adults ...	13·52	16·60	11·63
		Childbirth (<i>see</i> Childbirth and metria <i>infra</i>) ...	13·05	16·00	11·20
	3	Of old people (old age) ...	40·34	23·94	137·37
	4	Diseases of nutrition (atrophy and debility) ...	81·49	116·19	119·14
V.	1	Accident or negligence ...	79·97	124·03	} 76·13
	3	Homicide ...	2·23	2·91	
	4	Suicide ...	13·88	10·20	
	5	Execution ...	·12	·44	
I.	1	Childbirth and metria ...	15·40	20·24	17·19
IV.	2				

567. 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:—Zymotic diseases, notably croup, dysentery, diarrhoea, and typhoid fever; diseases of the dietic order, including want of breast-milk and alcoholism; diseases of the parasitic order, including thrush, hydatids, &c.; diseases of the stomach and bowels; violence; and the consequences of childbirth. From every other cause shown, also from all causes combined, the death rate is on the average higher in England and Wales than in Victoria. Results compared.

568. The following table shows in order of fatality the four or five principal causes of death during 1880 of males and females at various ages. Amongst other items of interest, it will be noticed that the complaints most fatal to infants and very young children were atrophy Principal causes of death at various ages.

* Particulars respecting some of the principal diseases only are given.

and diarrhœa, and to old people, bronchitis and heart disease; that typhoid fever was particularly fatal to young adults; that phthisis stood first in the list of both males and females between the ages of 15 and 55; that accidents appear in the list of males at all the age-periods between 5 and 55, and were more fatal than any other cause of death save phthisis, which is also the only complaint which ranks before child-bearing in the case of females between 25 and 35, and the only one more fatal than cancer between the ages of 35 and 55.

PRINCIPAL CAUSES OF DEATH OF MALES AND FEMALES AT VARIOUS AGES IN ORDER OF FATALITY, 1880.

Ages.	Order of Fatality.			
	1	2	3	4
MALES.				
All ages	Phthisis	Accidents	Heart disease	Atrophy
Under 1 year	Atrophy	Diarrhœa	Premature birth	Convulsions
1 to 5 years	Measles	Diarrhœa	Croup	Pneumonia
5 to 10 "	Diphtheria	{ Croup Accidents }	Cephalitis	{ Pneumonia Typhoid fever }
10 to 15 "	Accidents	Typhoid fever	{ Diphtheria Heart disease }	Phthisis
15 to 25 "	Phthisis	Accidents	Typhoid fever	Scrofula
25 to 35 "	Phthisis	Accidents	Typhoid fever	Brain disease
35 to 45 "	Phthisis	Accidents	Heart disease	Heart disease
45 to 55 "	Phthisis	Accidents	Heart disease	Brain disease
55 to 65 "	Heart disease	Phthisis	Cancer	Cancer
65 to 75 "	Old age	Heart disease	Bronchitis	Pneumonia
75 & upwards	Old age	Bronchitis	Heart disease	Pneumonia
FEMALES.				
All ages	Phthisis	Atrophy	Diarrhœa	Bronchitis
Under 1 year	Atrophy	Diarrhœa	Premature birth	Bronchitis
1 to 5 years	Measles	Diarrhœa	{ Bronchitis Pneumonia }	Croup
5 to 10 "	Diphtheria	{ Croup Typhoid fever }	Accidents	Hydrocephalus
10 to 15 "	{ Typhoid fever Diphtheria }	Accidents	{ Rheumatism Heart disease }	Phthisis
15 to 25 "	Phthisis	Typhoid fever	Childbearing *	Heart disease
25 to 35 "	Phthisis	Childbearing*	Typhoid fever	Brain disease
35 to 45 "	Phthisis	Cancer	Heart disease	Childbearing*
45 to 55 "	Phthisis	Cancer	Apoplexy	Liver disease
55 to 65 "	Cancer	Heart disease	Apoplexy	Paralysis
65 to 75 "	Old age	Brain disease	Heart disease	Apoplexy
75 & upwards	Old age	Bronchitis	Heart disease	Apoplexy

Zymotic
diseases.

569. Although a slight epidemic of measles prevailed during the year, the death rate from zymotic diseases was, as in the previous year, considerably below the average. Ever since the abatement of the fatal

* Including childbirth and metria.

epidemics which commenced in 1874, and continued until 1876, the death rate from this class of complaints has been decreasing, and, although usually higher, it has been in the last four years even lower than in England. The death rate from scarlatina and diphtheria, from typhoid fever, and even from diarrhoea—the fourth most fatal disease in Victoria*—were both in 1879 and 1880 below the English rates, which, especially as regards the last-named, is a very unusual circumstance. Measles and venereal diseases were the only complaints under this head from which the death rate in 1880 was above the average.

570. The following table shows the number of deaths from zymotic diseases particularly affecting children which occurred during the seventeen years ended with 1880. It will be noticed that measles prevailed in 1880, but that all the other complaints caused fewer deaths in that year than in 1879. This is the third time that measles has prevailed in an epidemic form during the period, there having been an interval of 6 years between the first and second, and of 4 years between the second and third visitations of that complaint. It moreover appears that in 1880 the mortality from scarlatina was lower than in any of the previous years except 1870, and the mortality from diarrhoea than in any except 1864; also that the mortality from dysentery and from diphtheria was the least in the whole period of seventeen years:—

Children's
zymotic
diseases.

DEATHS FROM ZYMOTIC DISEASES CHIEFLY AFFECTING CHILDREN,
1864 TO 1880.

Year.	Number of Deaths from—							Total.
	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Dysentery.	Diarrhoea.	
1864 ...	7	278	451	160	25	243	528	1,692
1865 ...	11	215	391	171	304	402	864	2,358
1866 ...	427	462	331	132	365	525	1,027	3,269
1867 ...	630	621	334	115	205	430	986	3,321
1868 ...	24	460	451	194	243	220	640	2,232
1869 ...	24	224	493	162	100	306	858	2,167
1870 ...	3	24	418	99	50	244	706	1,544
1871 ...	4	27	255	90	318	316	626	1,636
1872 ...	7	135	320	121	227	424	747	1,981
1873 ...	1	188	420	142	299	357	629	2,036
1874 ...	256	120	375	159	151	325	846	2,232
1875 ...	1,541	985	239	135	58	509	1,002	4,469
1876 ...	5	2,240	201	173	13	202	675	3,509
1877 ...	6	183	359	315	245	254	963	2,325
1878 ...	5	136	336	331	291	197	877	2,173
1879 ...	3	61	337	275	193	140	698	1,707
1880 ...	252	26	198	156	179	122	604	1,537
Total in } 17 years }	3,206	6,385	5,909	2,930	3,266	5,216	13,276	40,188

* See table following paragraph 565 ante.

Typhoid fever.

571. Deaths from typhoid fever in 1880 numbered only 297, which was about 100 below the average of the last 14 years, and was, with two exceptions, the smallest number recorded during that period. When compared with population, the mortality from this complaint is found to have been absolutely lower than in any previous year. The following table shows the number of deaths from typhoid fever, and their proportion to the population, during each of the past fourteen years :—

DEATHS FROM TYPHOID FEVER, 1867 TO 1880.

Year.	Deaths from Typhoid Fever.	
	Total Number.	Number per 10,000 Persons Living.
1867	455	7·06
1868	295	4·45
1869	360	5·24
1870	416	5·83
1871	269	3·65
1872	323	4·29
1873	282	3·68
1874	470	6·04
1875	455	5·78
1876	375	4·71
1877	532	6·58
1878	532	6·48
1879	438	5·25
1880	297	3·49
Mean	393	5·18

Typhoid fever in England and Wales,

572. In England and Wales the mortality from typhoid fever has been considerably reduced of late years. During the five years ended with 1874 the death rate therefrom was 5·58 per 10,000 persons living, which is slightly higher than in Victoria, whereas in the four years ended with 1878, it fell to 4·85, 3·96, 3·61, and 3·82 respectively per ten thousand,* or much lower than it was in the corresponding period in this colony.

Zymotic diseases in Australasian colonies.

573. As compared with population, zymotic diseases apparently cause greater mortality in Victoria than in any other Australian colony except Queensland. The following are the figures derived from observations extending over a series of years, the colonies being placed in order according to the rate prevailing in each. No information is at hand respecting Western Australia :—

* The English figures quoted are those of enteric, or typhoid, and simple continued fever, which probably correspond with fevers tabulated as typhoid in Victoria. These fevers in England were not separated from typhus until 1870, the latter being a disease which, it is said, does not exist in Victoria.

ORDER OF COLONIES IN REFERENCE TO MORTALITY FROM ZYMOTIC DISEASES.

Colony.	Years over which the Observations extend.	Deaths from Zymotic Diseases per 10,000 Persons Living.
1. Queensland ...	1868 to 1878	53.8
2. Victoria ...	1868 to 1878	40.1
3. South Australia ...	1869 to 1878	39.1
4. New South Wales ...	1868 to 1878	38.1
5. New Zealand ...	1872 to 1878	33.1
6. Tasmania ...	1868 to 1878	29.2

574. The following table shows the mortality from typhoid fever in the same colonies during the seven years ended with 1879. This complaint appears to be more fatal in Queensland than it is in Victoria or New South Wales, where the rates are about equal, but less so in South Australia, Tasmania, and New Zealand :—

DEATHS FROM TYPHOID FEVER IN AUSTRALASIAN COLONIES, 1873 TO 1879.

Year.	Number of Deaths from Typhoid Fever.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	282	3.68	...	...	67	4.78
1874 ...	470	6.05	...	...	78	5.03
1875 ...	455	5.78	298	5.00	158	9.16
1876 ...	375	4.71	401	6.49	72	3.91
1877 ...	532	6.58	375	5.81	105	5.38
1878 ...	532	6.48	441	6.50	197	9.53
1879 ...	438	5.25	265	3.71	132	6.16
Total...	3,084	5.52	1,780	5.48	809	6.38
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	68	3.48	24	2.32	127	4.41
1874 ...	97	4.82	44	4.22	161	5.05
1875 ...	94	4.53	50	4.81	340	9.47
1876 ...	92	4.22	26	2.49	195	5.03
1877 ...	84	3.63	41	3.86	133	3.26
1878 ...	106	4.37	50	4.61	131	3.11
1879 ...	101	3.97	38	3.42	208	4.64
Total ...	642	4.14	273	3.68	1,295	4.92

575. The death rate from Constitutional Diseases, Class II., was above the average. In this class, cancer caused 383 deaths, which is the same number as in 1879, but a larger one than in any previous year. As this complaint stood eighth in 1880, and ninth in 1879, in the list of causes of death*—its usual place being the twentieth—and

Deaths from cancer.

* See table following paragraph 565 ante.

mortality therefrom has for years past been increasing both here and in England, I have considered it of sufficient importance to warrant my devoting to it the following table, now published for the first time, which shows the number of deaths from cancer, and the number per 10,000 persons living, in each of the last twenty years :—

DEATHS FROM CANCER, 1861 TO 1880.

Years.	Deaths from Cancer.			
	Total Number.			Number per 10,000 Persons Living.
	Males.	Females.	Total.	
1861	52	50	102	1·89
1862	30	50	80	1·46
1863	58	45	103	1·83
1864	55	72	127	2·17
1865	81	70	151	2·47
1866	52	64	116	1·84
1867	63	57	120	1·87
1868	95	88	183	2·76
1869	85	99	184	2·68
1870	109	105	214	3·00
1871	100	93	193	2·62
1872	130	96	226	3·00
1873	122	128	250	3·27
1874	146	122	268	3·45
1875	168	140	308	3·91
1876	150	153	303	3·80
1877	169	160	329	4·07
1878	182	132	314	3·82
1879	205	178	383	4·59
1880	202	181	383	4·50
Total in 20 years...	2,254	2,083	4,337	3·07

Proportions
of the sexes
who died of
cancer.

576. Cancer is a complaint which usually affects females more than males. In the twenty years of which mention is made in the table, 92 of the former have died of it to every 100 of the latter, whereas in the total population females during the same vicenniad have probably averaged no more than 80 to every 100 males.

Deaths from
phthisis.

577. Also under the head of Constitutional Diseases is classified phthisis or consumption, which in 1880 caused 1,175 deaths, a larger number than had ever been previously set down to that disease in one year. Except during the prevalence of epidemics, phthisis is the occasion of more deaths than any other complaint; in the year under review it caused nearly twice as many deaths as atrophy and debility, those being the complaints which, in order of fatality, stand next to phthisis on the list.*

Death rate
from
phthisis.

578. In the following table, which shows the number of deaths from phthisis in each of the last twenty years, and their proportions to the

* See table following paragraph 565 ante.

total population, the results differ, more especially since 1873, from those given in previous issues of the *Victorian Year-Book*, as the rates have been re-calculated in accordance with amended estimates of population based upon the returns of the recent census. By the present figures it appears that the death rate from this complaint has of late years been increasing, and in 1880 was higher than in any previous year since 1861; also that during the last 7 years the average rate has been over 13, whereas formerly it was only a little more than 12 per 10,000 persons living :—

DEATHS FROM PHTHISIS IN VICTORIA, 1861 TO 1880.

Year.	Deaths from Phthisis.		Year.	Deaths from Phthisis.	
	Total Number.	Number per 10,000 Persons Living.*		Total Number.	Number per 10,000 Persons Living.*
1861 ...	753	13·94	1872 ...	876	11·63
1862 ...	707	12·90	1873 ...	945	12·34
1863 ...	717	12·74	1874 ...	1,011	13·00
1864 ...	686	11·70	1875 ...	1,027	13·04
1865 ...	741	12·12	1876 ...	1,010	12·68
1866 ...	782	12·43	1877 ...	1,088	13·46
1867 ...	793	12·31	1878 ...	1,124	13·68
1868 ...	746	11·25	1879 ...	1,058	12·69
1869 ...	893	12·99	1880 ...	1,175	13·82
1870 ...	888	12·45	Total in } 20 years }	17,861	12·65
1871 ...	841	11·41			

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

579. The following table gives the number of deaths from phthisis at each age and their proportion to the deaths from all causes :—

Ages at death from phthisis.

DEATHS FROM PHTHISIS, 1880.—AGE AT DEATH.

Ages.	Number who Died of Phthisis.			Percentage of Deaths from Phthisis to those from all Causes.†
	Males.	Females.	Total.	
Under 5 years ...	23	18	41	·90
5 to 10 „ ...	7	8	12	3·74
10 „ 15 „ ...	5	7	10	4·84
15 „ 25 „ ...	104	149	181	32·15
25 „ 35 „ ...	140	136	81	35·89
35 „ 45 „ ...	116	109	17	22·57
45 „ 55 „ ...	149	74	...	16·38
55 „ 65 „ ...	76	21	...	8·22
65 „ 75 „ ...	19	7	...	3·16
75 years and upwards...	2	3	...	·88
Unspecified ...	...	2	1	...
Total ...	641	534	343 1,175	10·08

NOTE.—The small figures in the total column denote the Victorians included in each number.

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

† See table following paragraph 547 ante.

‡ Including 1 Aboriginal in each line. § Including 2 Aborigines. ¶ Including 5 Aborigines.

Ages at which phthisis is most fatal.

580. It will be observed that the mortality from this complaint in 1880 was highest between the ages of 15 and 35, but that it was also high between 35 and 55. The value of these facts is, however, affected by the relative proportions of those living at the different ages, which is not at present accurately known.

Period of illness and residence.

581. The following table shows the numbers who died of phthisis in Victoria during 1880, also their ages and duration of illness contrasted with the length of time they had lived in the Australasian colonies * :—

DEATHS FROM PHTHISIS IN VICTORIA, 1880.—AGES AT DEATH AND DURATION OF ILLNESS, CONTRASTED WITH PERIOD OF RESIDENCE IN AUSTRALASIA.

	Period of Residence in Australasian Colonies.													Total Deaths from Phthisis.			
	Under 1 month.	1 to 6 months.	6 to 12 months.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	5 to 10 years.	10 to 15 years.	15 to 20 years.	20 to 25 years.	25 years and upwards.	Not known (not Australian).		Born there.†	Not known (no information re birthplace).	
Ages at Death.	Under 5 years	...	...	...	...	...	...	...	...	...	...	...	...	41	...	41
	5 to 10 "	...	...	...	...	...	...	1	...	...	...	...	...	13	1	15
	10 " 15 "	...	...	...	1	1	...	...	...	...	...	...	...	10	...	12
	15 " 25 "	1	1	...	4	1	1	2	7	11	5	8	...	209	3	253	
	25 " 35 "	2	7	4	4	5	5	4	18	22	25	22	43	6	101	8	276
	35 " 45 "	...	5	1	4	2	3	2	8	27	40	49	43	13	21	7	225
	45 " 55 "	3	...	1	7	5	19	64	92	15	8	9	223
	55 " 65 "	1	1	3	4	28	47	5	2	6	97
	65 " 75 "	2	5	15	3	...	1	26
75 and upwards	...	...	...	...	...	...	...	...	...	2	1	2	...	1	...	6
Unspecified	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Total ...	3	13	5	13	13	9	9	44	68	95	177	242	42	407	35	1,175	
Duration of Illness.	Under 1 month	...	...	1	...	...	...	2	4	4	10	13	2	21	1	58
	1 to 3 months	1	...	...	2	1	...	1	...	1	12	14	1	27	...	61
	3 " 6 "	...	2	1	1	...	...	7	7	10	20	25	...	62	...	135
	6 " 12 "	1	1	1	1	2	5	11	14	25	32	4	81	2	180
	Some months	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
	1 to 2 years	...	2	...	3	1	2	1	8	12	16	25	44	5	73	...	192
	2 " 3 "	...	2	1	2	2	1	1	6	5	13	23	30	6	48	4	144
	3 " 4 "	2	5	3	7	11	15	2	10	...	55
	4 " 5 "	...	1	1	...	1	3	7	1	4	...	18
	5 " 10 "	1	...	...	...	...	...	...	5	6	7	6	2	7	1	35
	10 years and over	...	...	...	...	...	...	...	1	...	3	4	1	2	...	11
Some years, long standing, &c.	...	...	...	1	1	...	...	2	4	2	7	1	7	1	26	
Unknown	1	6	1	3	5	4	4	10	17	20	36	45	17	63	26	258	

* Statistics of the duration of illness in connection with period of residence in Australia were first published in the well-known work by W. Thomson, F.R.C.S. Ed., entitled *Phthisis, and the Supposed Influence of Climate*. Melbourne: Stillwell and Knight, 1870.

† Including 343 natives (10 being Aborigines) of Victoria, 19 (1 being an Aboriginal) of New South Wales, 12 of South Australia, 30 of Tasmania, and 3 of New Zealand.

582. Examining this table, it is found, in regard to the persons of whom full particulars are given,* that in all but 22 instances the period of residence in the Australasian colonies was greater than the duration of illness, and therefore that the complaint must have been contracted there ; also, that in no less than 407 cases, or 34½ per cent. of the whole, the person dying was a native of the colonies. These facts, combined with similar results in previous years, unhappily completely destroy the theory that phthisis is a disease which cannot be generated in Australasia.

Period of residence greater than time of illness.

583. In 1880 the victims to phthisis respecting whom information was given in the registers as to whether the disease was contracted in the colonies were more numerous in Melbourne and suburbs than in the extra-metropolitan districts of Victoria, the numbers being 503 and 426 respectively. Of those who died in Melbourne and suburbs, 488, or 97 per cent., and of those who died in other places, 419, or 98 per cent., are said to have been first attacked by the disease in Australasia. These facts are shown by the following table :—

Phthisis contracted in Australasia and elsewhere.

DEATHS FROM PHTHISIS, 1880.—DISEASE CONTRACTED IN AUSTRALASIA AND ELSEWHERE.

Place where Disease was Contracted.	Persons who Died of Phthisis.†					
	In Melbourne and Suburbs.		In Extra-Metropolitan Districts.		Total in Victoria.	
	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
Australasian colonies	488	97·02	419	98·36	907	97·63
Elsewhere ...	15	2·98	7	1·64	22	2·37
Total ...	503	100·00	426	100·00	929	100·00

584. The period of residence in the Australasian colonies of most of those who died of phthisis in Victoria is available for the five years ended with 1880. The information is complete respecting 5,096 persons, and of these, 1,513, or 30 per cent., were born in Australasia ; 3,221, or 63 per cent., had resided there for upwards of five years ; 168, or a further 3 per cent., had resided there for upwards of two years ; and only 194, or about 4 per cent., had lived there for less than two years. The following table shows the number of persons who died of phthisis in each year in combination with their period of residence in Australasia, those being omitted of whom the term of residence was not stated :—

Time of residence in Australasia.

* Although in 195 cases (exclusive of those born in the colonies), or a sixth of the whole, the duration of illness was unspecified, only 24 of these had resided in the colonies for less than five years, so that the great majority of them also acquired the complaint in Australasia.

† Only the numbers respecting whom full particulars are stated in the death registers.

DEATHS FROM PHTHISIS,* 1876 TO 1880.—PERIOD OF RESIDENCE
IN AUSTRALASIA.

Period of Residence in Australasian Colonies.	Numbers who Died of Phthisis.						
	1876.	1877.	1878.	1879.	1880.	Total in five Years.	Proportion per Cent.
Under 1 month ...	6	4	8	1	3	22	·43
1 month to 1 year ...	25	20	23	18	18	104	2·04
1 year to 2 years ...	18	11	11	15	13	68	1·33
2 years to 5 years ...	33	39	40	25	31	168	3·30
5 years and upwards ...	672	682	650	591	626	3,221	63·21
Born there ...	193	252	316	345	407	1,513	29·69
Total ...	947	1,008	1,048	995	1,098	5,096	100·00

Phthisis in
Melbourne
and
country.

585. In proportion to population, the deaths from phthisis have always been much more numerous in Melbourne and suburbs than in the remainder of the colony, as will be seen by the following figures, which give the results for twenty years:—

DEATHS FROM PHTHISIS PER 10,000 PERSONS LIVING IN MELBOURNE
AND COUNTRY DISTRICTS, 1861 TO 1880.

Year.	Melbourne and Suburbs.	Extra- Metropolitan Districts.	Year.	Melbourne and Suburbs.	Extra- Metropolitan Districts.
1861 ...	23·44	10·63	1872 ...	18·69	8·62
1862 ...	24·64	8·71	1873 ...	20·51	8·77
1863 ...	23·71	8·79	1874 ...	22·04	8·94
1864 ...	20·08	8·70	1875 ...	21·46	9·25
1865 ...	22·11	8·57	1876 ...	22·46	8·28
1866 ...	20·42	9·53	1877 ...	22·74	9·29
1867 ...	21·56	8·87	1878 ...	22·62	9·63
1868 ...	20·83	7·63	1879 ...	21·77	8·45
1869 ...	23·87	8·83	1880 ...	23·95	8·92
1870 ...	22·49	8·56			
1871 ...	22·08	7·20	Means	22·07	8·80

Phthisis in
Melbourne
and United
Kingdom.

586. There is no doubt that for years past the death rate from phthisis in Melbourne and suburbs has been to a certain extent swelled by the presence of persons who started from Europe whilst suffering from the disease in an advanced stage, having been induced to take the voyage to this colony under the hope that benefit might be derived from the Australian climate, but have landed in Melbourne only to die there. Notwithstanding this disturbing element, however, the death rate from phthisis is not so high in Melbourne and suburbs as in London, but it approximates closely to that in the United

* Exclusive of 63 in 1876, 80 in 1877, 76 in 1878, 63 in 1879, and 77 in 1880, of which the necessary particulars were not given in the registers.

Kingdom, which, in 1875, was 22·24, in 1876, 21·45, in 1877, 21·01, and in 1878, 21·34 per 10,000 persons living; but the death rate from phthisis in Ireland, which in 1878 was 19·45, and in the previous ten years averaged 18·77, per 10,000 persons living, is lower than that of Melbourne. The latter, however, is not nearly so high as that prevailing in Scotland, which in 1878 was 28 per 10,000 persons living.

587. Phthisis in Victoria, during the last five years, proved more fatal to males than to females; for whereas in the population females existed in the proportion of about 90 to 100 males, they died of phthisis in 1880 in as low a proportion as 83, and in the previous four years in the proportion of only 74, to 100 males. It is possible, however, that males at the phthisical ages bore a higher proportion to the total number of males living in the colony than females at those ages bore to the total number of females.

Sex of those who died from phthisis.

588. Of the Chinese who died in Victoria in 1880, 25, or 19 per cent., fell victims to phthisis. Of those of all nationalities who died, the proportion from this complaint was 10 per cent.; but it must be remembered that the Chinese in Victoria, with the exception of a very small number of children and old people, are all at the ages at which attacks of phthisis are most common.

Phthisis among Chinese.

589. Eleven deaths of Aborigines in 1880 were set down to phthisis, or 42 per cent. of the whole number recorded. Mr. Henry Jennings, Vice-Chairman of the Board for the Protection of the Aborigines, in his report dated 1st July 1879,* says—"Lung disease" (with which he probably includes phthisis) "is the chief cause of the death of the Aborigines, who, when once affected, very seldom recover;" and Mr. Richard Bennet, in an article entitled *Some Account of Central Australia*,† says, with reference to the Australian Aborigines generally—"From my experience among the blacks, I believe nine-tenths of them die of consumption."

Phthisis among Aborigines.

590. The rate of mortality from phthisis in Victoria would appear, by the calculations in the following table, to have been, over a series of years, slightly above that in Queensland, and much higher than in any other of the Australasian colonies. It will be observed that the figures of the other colonies in the several years exhibit more variation than those of Victoria, also that Queensland is the only colony besides Victoria in which the rate in any of the years exceeded 13 per 10,000 ‡ :—

Phthisis in Australasian colonies.

* See Fifteenth Report of the Board, Parliamentary Paper No. 68, Session 1879.

† See *Victorian Review* for April 1880, p. 934.

‡ It is pointed out by the Registrar-General of Queensland, in his 19th Annual Report, that the death rate from phthisis in that colony is considerably swelled by the prevalence of the disease amongst the Polynesians.

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES,
1873 TO 1879.

Year.	Number of Deaths from Phthisis.					
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
1873 ...	945	12·34	...	...	145	10·35
1874 ...	1,011	13·00	...	...	163	10·51
1875 ...	1,027	13·04	614	10·31	228	13·22
1876 ...	1,010	12·68	616	9·96	260	14·12
1877 ...	1,088	13·46	597	9·24	225	11·53
1878 ...	1,124	13·68	652	9·62	263	12·72
1879 ...	1,058	12·69	746	10·45	281	13·12
Total...	7,263	12·99	3,225	9·91	1,565	12·34
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	153	7·84	115	11·10	206	7·16
1874 ...	179	8·89	101	9·69	270	8·47
1875 ...	209	10·07	114	10·97	339	9·45
1876 ...	226	10·36	102	9·75	307	7·92
1877 ...	203	8·78	127	11·95	326	7·98
1878 ...	267	11·00	115	10·60	326	7·73
1879 ...	271	10·66	90	8·09	399	8·90
Total...	1,508	9·72	764	10·29	2,173	8·26

Local dis-
eases.

591. The death rate under Class III., local diseases, was somewhat below the average. The decrease occurred in deaths from diseases of the nervous, digestive, generative, locomotive, and integumentary systems, but, on the other hand, as in the two previous years, a more than average mortality resulted from diseases of the circulatory, respiratory, and urinary systems. Most deaths in this class have usually been caused by complaints of the brain and nerves, but in the year under review these were exceeded by those from affections of the organs of respiration, in which are included bronchitis, pneumonia, and congestion of the lungs, which together caused 1,321 deaths, and stood sixth, seventh, and seventeenth respectively in the list of causes of death.* In 1880, as in 1879, the death rate from urinary diseases was half as high again as the average, and even exceeded the rate in England and Wales. The most fatal complaint under this head is nephria (Bright's disease), which, in the past year, caused 107 deaths.

Develop-
mental
diseases.

592. Under Class IV., developmental diseases, the death rate from those peculiar to children, Order 1, and from diseases of nutrition, which are also those of children chiefly, Order 4, was much below the average.

* See table following paragraph 565 *ante*.

The death rate from those peculiar to adults, Order 2, was slightly below the average, but the death rate from old age, Order 3, which has for some years past been increasing, was considerably above the average. The increased death rate from old age is easily accounted for by the circumstance that those remaining in the colony of the large number of immigrants who arrived at or about the times of the early gold discoveries are gradually reaching the age when they may be expected to die off. Premature birth—the principal cause of death under Order 1—caused 326 deaths in 1880, which number gives a proportion of over 10 per cent. of the total deaths under 1 year, and amounts to nearly 1½ per cent. of the total births recorded. The principal diseases under Orders 2 and 4—childbirth and atrophy—will be referred to shortly.*

593. Deaths under the head of atrophy and debility, although always numerous, were in 1880, as in the four previous years, below the average. Atrophy and debility. The mortality under this head is almost entirely confined to young children and infants—thus, of the 693 set down thereto in 1880, 618 were under 5 years, 564 were under 1 year, and 281 were under 1 month of age. It is probable, however, that the causes of death amongst children are too often loosely given, and that sufficient pains are not taken to ascertain the primary disease. As a knowledge of the causes of death in childhood is a matter of extreme importance, it is to be desired that medical men would, where possible, define these deaths more accurately. The following are the numbers of both sexes recorded as having died from atrophy and debility in each of the fourteen years ended with 1880 :—

DEATHS FROM ATROPHY AND DEBILITY, 1867 TO 1880.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1867	399	347	746	1876	344	305	649
1868	337	328	665	1877	344	304	648
1869	386	337	723	1878	389	311	700
1870	422	368	790	1879	407	304	711
1871	368	311	679	1880	369	324	693
1872	354	338	692				
1873	378	336	714				
1874	402	337	739	Total in four-	5,312	4,599	9,911
1875	413	349	762	teen years			

594. Notwithstanding the proportions of the sexes of persons at ages to be affected by atrophy and debility were about equal, it will be observed that in every one of the years more males died than females. During the whole period of fourteen years, 90 females died of these complaints to every 100 males. Sex of those who died of atrophy, &c.

* See next paragraph, and paragraph 612 post.

Violent
deaths.

595. Deaths from external causes, Class V., although still much higher in proportion to the population than in England and Wales, were in 1880 much below the average. Of the 818 violent deaths recorded in Victoria during that year, 680, or 83 per cent., were ascribed to accident; 19, or 2 per cent., to homicide; 118, or 15 per cent., to suicide; and 1 to execution. Deaths from accidents were formerly more numerous than those from any single disease, but in 1880 they were less than the deaths caused by either phthisis or atrophy; 39 per cent. of these deaths were due to fractures, and 28 per cent. to drowning. Homicides were below, but suicides were above, the average; only thrice in the last fourteen years did the number of the latter exceed 100, viz., in 1876, 1879, and in the year under review.

Violent
deaths in
detail.

596. 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 1880 and the previous decenniad, the sexes of those who died being distinguished:—

VIOLENT DEATHS, 1870 TO 1880.

Causes of Death.	Year 1880.			Ten Years: 1870 to 1879.		
	Males.	Females.	Total.	Males.	Females.	Total.
Accidents:—						
Fractures and contusions	247	22	269	2,942	241	3,183
Gunshot wounds ...	12	1	13	} 221	36	257
Cuts, stabs, &c. ...	11	2	13			
Burns and scalds ...	37	47	84	367	506	873
Sunstroke ...	8	3	11	154	59	213
Lightning ...	3	...	3	22	3	25
Poison ...	9	10	19	116	62	178
Snake, insect—bite ...	2	...	2	25	13	38
Drowning ...	147	45	192	1,624	386	2,010
Suffocation ...	39	18	57	437	219	656
Others ...	13	4	17	93	28	121
Total ...	528	152	680	6,001	1,553	7,554
Homicide ...	13*	6	19	125	75	200
Suicide:—						
Gunshot wounds ...	10	...	10	64	...	64
Cuts, stabs, &c. ...	23	1	24	155	21	176
Poison ...	15	1	16	146	47	193
Drowning ...	21	6	27	142	69	211
Hanging ...	36	4	40	209	19	228
Otherwise ...	...	1	1	31	4	35
Total ...	105	13	118	747	160	907
Execution ...	1	...	1	23	...	23
Grand Total ...	647	171	818	6,896	1,788	8,684

* Including three outlaws who were killed by the police.

597. During the eleven years ended with 1880, 76,006 males and 56,623 females died of specified causes ; and it results from these figures, and those in the foregoing table, that, of the males, 1 in every 10 died a violent death ; 1 in every 12 died of an accident ; 1 in every 551 was a victim to homicide ; 1 in every 89 committed suicide ; and 1 in every 3,167 was executed. Of the females, 1 in every 29 died a violent death ; 1 in every 33 died of an accident ; 1 in every 699 died by the hand of another ; 1 in every 327 committed suicide ; but, happily, not one was executed.

Violent deaths in proportion to total deaths.

598. Males are much more subject to violent deaths than females. Of those who so died in 1880, 647, or 79 per cent., belonged to the male, and 171, or 21 per cent., to the female sex.

Violent deaths of males and females.

599. 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 is murdered, about 2 males are murdered ; where 1 female commits suicide, 4 males do so. Only 1 woman has been executed in the colony since its first settlement ; but in the eleven years to which reference is made in the table 24 males were executed.

Violent deaths : proportion of males and females.

600. The only violent deaths which habitually affect females more than males are those resulting from burns and scalds. All other circumstances which occasion sudden deaths bear more hardly upon males than upon females.

Burns and scalds.

601. One hundred and eighteen persons took their own lives in 1880, and 108 in the previous year. During the ten years ended with 1879 the mean annual number of deaths by suicide was 91.

Suicidal deaths.

602. Hanging is the most common mode by which men commit suicide, cutting or stabbing the next, drowning and taking poison with almost equal frequency the next, shooting the next. Females most frequently take their lives by drowning, next so by taking poison, next by stabbing or hanging, and not once in the 173 cases named in the table by shooting.

Modes of committing suicide.

603. Suicide frequently occurs amongst the Chinese. Five men of this race committed that act in 1880, viz., 1 by drowning and the remainder by hanging. The total number of Chinese males in the colony was ascertained at the recent census to be 11,871 ; so that those who committed suicide during the year were in the proportion of about 4 to every 10,000.

Suicides of Chinese.

604. According to the results in the following table it would appear that, in proportion to population, suicide is more common in Victoria

Suicides in Australasian colonies.

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 enquiry, 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 suicides and their proportion to every 10,000 of the population during the seven years ended with 1879 recorded in all the Australasian colonies except Western Australia :—

DEATHS FROM SUICIDE IN AUSTRALASIAN COLONIES,
1873 TO 1879.

Year.	Number of Deaths from Suicide.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	97	1·27	41	·75	22	1·57
1874 ...	97	1·25	64	1·12	10	·64
1875 ...	91	1·16	55	·92	23	1·33
1876 ...	100	1·26	61	·99	24	1·30
1877 ...	92	1·14	66	1·02	27	1·38
1878 ...	87	1·06	48	·71	29	1·40
1879 ...	108	1·30	62	·86	40	1·87
Total ...	672	1·20	397	·91	175	1·38
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	10	·51	6	·58	20	·70
1874 ...	22	1·09	6	·58	20	·63
1875 ...	24	1·15	6	·58	29	·81
1876 ...	15	·69	6	·57	42	1·08
1877 ...	17	·73	10	·94	32	·78
1878 ...	18	·74	8	·74	37	·88
1879 ...	18	·71	5	·45	42	·94
Total ...	124	·80	47	·63	222	·84

605. It will be observed that, according to the records, the suicides which take place annually in Victoria and Queensland are almost invariably above 1 per 10,000 persons living, but those which take place in the other colonies are generally below that proportion, which indeed was not once reached in Tasmania, only once in New Zealand, and only twice in New South Wales and South Australia during the seven years named in the table.

606. It will be readily believed that violent deaths are not so frequent in Victoria now as in the early days of the gold discoveries. By the following figures, however, which, with the exception of those in the first line, have been extracted from the appendix to the 40th Report of the Registrar-General of England, such deaths appear still to be more common there than in any European country. Fatal accidents in Victoria seem to occur with more frequency than in any of the countries, and suicides than in any except Switzerland. Homicide, relatively to population, appears to be about equal to the same circumstance in Sweden and Prussia, but to be less rife than in Switzerland, Finland, Bavaria, or Italy. It must be remembered, however, that the proportions in the table have been calculated in relation to the events occurring in one year only, and might not hold good if those in a series of years were taken into account :—

Violent
deaths in
European
countries.

DEATH RATE FROM VIOLENCE IN VICTORIA AND IN CERTAIN
EUROPEAN COUNTRIES.*

Countries.	Proportion to 100,000 Living of Deaths from—			
	Violence of all kinds.	Accident and Negligence.	Homicide.	Suicide.
Victoria	96·2	80·0	2·2	13·9
Switzerland	92·4	68·9	3·9	19·6
United Kingdom	77·5	69·7	1·6	6·2
England and Wales	75·7	66·7	1·7	7·3
Scotland	72·0	68·2	·1	3·7
Ireland	39·1	35·3	1·7	2·1
Norway	72·4	64·1	1·3	7·0
Finland	62·6	55·7	3·5	3·4
Sweden	61·9	50·7	2·0	9·2
Prussia	61·6	46·1	2·1	13·4
Bavaria	51·9	37·7	3·9	10·3
Belgium	48·3	38·5	1·6	8·2
Austria	47·1	...	...	11·3
Italy	24·0	14·9	5·4	3·7

607. 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 twenty-two years ended with 1880, embracing the whole period of the existence of railways in Victoria :—

Railway
accidents.

* The proportions have been calculated upon the occurrences in Norway during 1873, in Scotland during 1875, in Finland during 1874, in Prussia during 1875, in Victoria during 1880, and in other countries during 1876.

DEATHS AND INJURIES FROM RAILWAY ACCIDENTS, 1859 TO 1880.*

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own miscon- duct or want of caution.	Total.	From causes beyond their own control.	From their own miscon- duct or want of caution.	Total.	At crossings.	Trespassers.	Miscellane- ous.
1859 to 1868	37	...	...	...	3	19	22	1	14	...
1869	4	...	...	...	...	2	2	...	1	1
1870	2	...	...	...	...	1	1	...	1	...
1871	6	...	...	...	...	2	2	...	2	2
1872	3	...	...	...	...	...	...	...	3	...
1873	...	...	...	...	...	...	...	...	...	...
1874	10	...	...	...	4	...	4	1	4	1
1875	11	...	...	...	...	6	6	...	4	1
1876	23	...	...	...	3	10	13	2	6	2
1877	22	...	1	1	3	10	13	...	8	...
1878	16	...	...	...	...	7	7	2	6	1
1879	21	...	...	...	1	8	9	2	9	1
1880	18	...	...	...	...	7	7	3	6	2
Total killed	173	...	1	1	14	72	86	11	64	11

PERSONS KILLED.

PERSONS INJURED.										
1859 to 1868	84	22	2	24	5	45	50	1	7	2
1869	...	...	...	...	...	...	...	...	...	...
1870	4	...	...	...	4	...	4	...	...	...
1871	3	...	...	...	...	1	1	...	1	1
1872	32	28	2	30	1	1	2	...	...	...
1873	1	...	...	...	...	1	1	...	...	...
1874	1	...	...	...	...	1	1	...	...	...
1875	8	...	...	...	6	1	7	...	1	...
1876	27	1	1	2	4	15	19	...	5	1
1877	49	36	...	36	3	5	8	1	2	2
1878	40	22	3	25	6	5	11	...	1	3
1879	45	7	2	9	11	20	31	3	1	1
1880	20	5	...	5	1	7	8	2	3	2
Total injured	314	121	10	131	41	102	143	7	21	12

608. It will be observed that, in the whole period of twenty-two years, exclusive of accidents at crossings or to trespassers, 173 persons were killed and 314 were injured on the State lines of railway, and that 73 of the former and 112 of the latter met their death or injury in consequence of their own misconduct or want of caution. Only 1 passenger was killed throughout the period, but as many as 86 railway or con-

* As this table does not extend beyond 1880, the particulars of the casualties resulting from the railway accident of the 30th August 1881 are not included. On that occasion, portion of the Brighton express train got off the line near Jolimont, when three carriages were precipitated over a low embankment, causing the loss of four lives, and injuries of a more or less serious character to about thirty other passengers.

tractors' servants were killed ; the former, and all but 14 of the latter, having been so in consequence of their own carelessness. The passengers injured numbered 131, and the railway servants 22 more ; as many as 102 of the latter, but only 10 of the former, suffered from their own action. At crossings only 11 persons were killed and 7 injured, which must be considered very small numbers, taking into account the many level crossings on the lines. As many as 64 trespassers were killed ; these no doubt included persons who committed suicide by placing themselves in the way of trains. The trespassers injured numbered less than a third of those killed.

609. In the seven years ended with 1880, embracing the whole period the Regulation of Mines Statute 1873 (37 Vict. No. 480) has been in operation, 430 persons lost their lives, and 1,093 persons were injured from accidents connected with mining operations. The following were the numbers in each year and their proportion to the number of miners at work :—

Mining accidents.

DEATHS AND INJURIES FROM MINING ACCIDENTS, 1874 TO 1880.

Year.	Average number of Miners at work.	Number of Persons—			Numbers per 1,000 Miners at work—		
		Killed.	Injured.	Total.	Killed.	Injured.	Total.
1874 ...	46,512	90	245	335	1·93	5·26	7·20
1875 ...	42,058	83	217	300	1·97	5·15	7·13
1876 ...	41,531	55	170	225	1·32	4·10	5·42
1877 ...	38,860	64	154	218	1·65	3·96	5·61
1878 ...	37,212	40	106	146	1·07	2·85	3·92
1879 ...	37,195	48	112	160	1·29	3·01	4·30
1880 ...	38,076	50	89	139	1·32	2·34	3·65
Means ...	40,206	61	156	217	1·51	3·88	5·40

610. On comparing the numbers in the early with those in the later years, it is satisfactory to note a considerable diminution in the cases of death and injury from mining accidents. Not only have the actual numbers decreased, but their proportion to the miners at work is much smaller. In the seven years to which reference is made, 1 miner in every 659 lost his life, whilst in 1880 this proportion had fallen to 1 in 762. Both proportions contrast favorably with the deaths from mining accidents in Great Britain and Ireland, where, according to the report of Her Majesty's Inspectors of Mines for 1879, 1 person in every 490 employed in and about mines lost his life by accident during the year. This is exclusive of accidents in coal mines, in respect to which the proportion of fatal accidents is much higher.

Diminution in mining accidents.

Causes of
mining
accidents.

611. The immediate causes of the mining accidents from which death or injury resulted in Victoria during the same seven years were as follow :—

CAUSES OF MINING ACCIDENTS, 1874 TO 1880.

Nature of Accident.	Number of Persons—		
	Killed.	Injured.	Total.
Fall of earth or rock underground	181	331	512
" " on surface	66	61	127
" materials down shafts	20	78	98
" " " passes or jump-ups... ..	...	16	16
Falling down shafts	70	93	163
" " winzes or shoots	8	35	43
" and slipping underground ... ..	...	18	18
" " at surface ... ..	...	14	14
Cage accidents	19	53	72
Timber accidents	9	18	27
Truck accidents ... ..	...	22	22
Machinery in motion	10	49	59
Explosion of blasts—gunpowder	11	82	93
" " guncotton	1	10	11
" " dynamite	1	4	5
" " lithofracteur	5	11	16
" " rockburster ... ..	...	2	2
" " other explosives, or not named	3	17	20
" explosives not blasts	3	20	23
" boilers ... ..	...	5	5
" fire damp	1	19	20
Foul air	3	...	3
Undescribed	19	135	154
Total	430	1,093	1,523

Deaths in
childbed.

612. 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 child-bearing without specific disease, it is set down as of Childbirth, Class IV., Order 2; but, if it should arise from puerperal fever, it is placed under the head of Metria, Class I., Order 1. The deaths from child-bearing were unusually numerous in proportion to the births during the seven years ended with 1878; but, in 1879, they were only slightly above, and, in 1880, were below the average. The following are the deaths and death rate from these complaints during the last seventeen years :—

DEATHS OF WOMEN IN CHILDBIRTH, 1864 TO 1880.

Year.	Number of Mothers who died of—			Deaths of Mothers to every 10,000 Children Born Alive.
	Childbirth.	Metria.	Total.	
1864	100	21	121	47·12
1865	99	24	123	47·46
1866	112	26	138	55·18
1867	117	20	137	53·51
1868	110	23	133	48·82
1869	105	18	123	47·23
1870	115	9	124	45·67
1871	90	12	102	37·25
1872	123	16	139	50·80
1873	127	44	171	60·85
1874	142	109	251	93·66
1875	154	83	237	88·70
1876	117	48	165	61·64
1877	131	42	173	66·51
1878	149	49	198	74·49
1879	123	38	161	59·99
1880	111	20	131	50·09
Total in seventeen years	2,025	602	2,627	58·20

613. The proportion of women dying in childbed during the whole period of seventeen years was 1 to 172 births, but in 1880 the proportion was 1 to every 200 births. In 1879, the proportion was 1 to every 166 births; in 1878, 1 to every 134 births; in 1877, 1 to every 150 births; and in 1876, 1 to every 162 births; in 1875, 1 to every 113 births; and in 1874, 1 to every 107 births. All these proportions, except those for 1880, are higher than those in England and Wales, where, in the twenty-eight years ended with 1874, 200 births occurred to each death of a mother.* In Scotland 1 woman is stated to have died in childbirth to every 207 births during 1873, and to every 149 in 1874; and in Ireland, during the ten years, 1869–78, 1 to every 151 births.

Deaths in childbed in Victoria and United Kingdom.

614. In the Melbourne Lying-in Hospital, during 1880, 586 women were confined, and 532 infants were born alive. Six deaths of mothers occurred during or shortly after parturition. Thus 1 death of a mother occurred to every 98 deliveries, or to every 89 births. It should be mentioned, however, that maternity hospitals all over the world 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†.

Deaths of women in Lying-in Hospital.

* For an exhaustive enquiry into the causes of death in childbirth, see Dr. Farr's letter published as an appendix to the 39th Annual Report of the Registrar-General, England, pages 241 to 251.

† According to the report of the Lying-in Hospital for 1880, child-bearing was, in most cases where death occurred, complicated with some other disease. One patient is stated to have died of acute bronchitis, 1 of acute tuberculosis, and 1 of septicæmia; 1 was admitted in a dying condition suffering from rupture of the bladder, 1 who was convalescent died suddenly of heart disease, and 1 who was admitted whilst suffering from typhoid fever died of cerebral effusion.

Deaths in
childbed in
Austral-
asian
colonies.

615. Deaths of lying-in women appear to be more common in Victoria than in any other Australasian colony. It should, however, be mentioned that the fact of a woman dying in childbed is not always at once discoverable from the death registers. Some medical men appear to endeavor to conceal the fact of their losing patients in this manner, and enter the cause of death as debility, exhaustion, blood-poisoning, phlebitis, peritonitis, &c., omitting to state that these circumstances were consequent upon child-bearing until specially asked whether this was the case. The causes of death of females at child-bearing ages should be carefully scrutinized, and enquiries made respecting all entries which appear doubtful. It is questionable whether in some of the other colonies this scrutiny is as complete as it is in Victoria, and hence it is probable that the full extent of the mortality in childbirth occurring in such colonies is not known. The following table contains a statement of the deaths recorded as having occurred from childbirth and metria in all the Australasian colonies except Western Australia during the seven years ended with 1879, and the proportion of such deaths to every 10,000 children born alive in each colony :—

DEATHS FROM CHILDBIRTH AND METRIA IN AUSTRALASIAN COLONIES, 1873 TO 1879.

Year.	Number of Deaths from Childbirth and Metria.					
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.
1873 ...	171	60·85	...	...	23	40·21
1874 ...	251	93·66	...	...	33	51·70
1875 ...	237	88·70	149	66·14	37	55·17
1876 ...	165	61·64	186	79·84	43	62·29
1877 ...	173	66·51	113	47·38	53	73·93
1878 ...	198	74·49	103	40·67	46	62·19
1879 ...	161	59·99	90	33·42	38	48·28
Total...	1,356	72·20	641	52·57	273	56·70
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	22	30·96	26	85·30	52	46·34
1874 ...	38	49·38	20	64·58	74	57·61
1875 ...	54	72·89	32	103·06	93	64·41
1876 ...	49	59·58	20	63·51	74	45·77
1877 ...	45	52·08	25	77·86	74	43·90
1878 ...	41	44·17	16	45·69	85	47·83
1879 ...	50	50·49	11	30·86	81	44·83
Total...	299	51·32	150	66·15	533	49·64

616. There are 34 general hospitals in Victoria, 8 of which are also benevolent asylums. The total number of cases of sickness treated in these institutions during 1880 was 15,120, and the number of deaths was 1,413. In 1879, the cases of sickness treated numbered 14,984, and the deaths 1,452. There was thus 1 death to every 10·7 cases of sickness treated in hospitals during 1880, as against 1 death to every 10·3 cases of sickness treated therein during the previous year.

Sickness and deaths in general hospitals.

617. The following table gives a list of the various hospitals throughout the colony, also a statement of the number of cases treated, the number of deaths which occurred in 1880, and the proportion of deaths to cases in each hospital during that and the previous year :—

Death rate in each hospital.

SICKNESS AND MORTALITY IN GENERAL HOSPITALS.

Name of Hospital.	Year 1880.			Percentage of Mortality to Cases treated, 1879.
	Number of Cases treated.	Number of Deaths.	Percentage of Mortality to Cases treated.	
Alexandra	18	...	...	...
Amherst	219	25	11·42	7·10
Ararat	284	14	4·93	5·54
Ballarat	878	98	11·16	10·12
Beechworth	498	37	7·43	7·10
Belfast	53	1	1·89	8·89
Bendigo	1,277	119	9·32	10·95
Castlemaine	741	47	6·34	9·50
Clunes	195	19	9·75	8·71
Creswick	227	14	6·17	8·71
Daylesford	194	5	2·58	8·67
Dunolly	265	16	6·04	10·68
Geelong	963	66	6·85	10·22
Hamilton	564	29	5·14	5·67
Heathcote	87	11	12·64	12·36
Horsham	219	17	7·76	8·97
Inglewood	325	23	7·08	4·64
Kilmore	138	15	10·87	14·38
Kyneton	525	27	5·14	6·80
Maldon	51	8	15·69	10·91
Mansfield	113	3	2·65	5·56
Maryborough	356	32	8·99	6·21
Melbourne	4,096	573	13·99	11·99
Melbourne (Alfred)	1,090	75	6·88	9·45
Melbourne (Homœopathic)	145	4	2·76	6·01
Mooroopna	204	14	6·86	6·45
Pleasant Creek	307	23	7·49	10·63
Portland	87	4	4·60	11·11
Sale	218	22	10·09	10·38
St. Arnaud	202	20	9·90	11·17
Swan Hill	115	6	5·22	6·50
Wangaratta	240	30	12·50	6·97
Warrnambool	134	11	8·21	6·35
Wood's Point	92	5	5·43	4·07
Total	15,120	1,413	9·35	9·69

Highest and
lowest
death rates.

618. In proportion to the cases treated, the greatest mortality occurred in the Maldon and Melbourne Hospitals; and, with the exception of the Alexandra Hospital, where no deaths took place, either in 1879 or 1880, the least in the Belfast, Daylesford, Mansfield, and Melbourne Homœopathic Hospitals. In 1879 the rate of mortality was highest in the Kilmore, Heathcote, and Melbourne Hospitals; and, with the exception of the Alexandra Hospital, lowest in the Wood's Point and Inglewood Hospitals.

Sickness and
deaths in
hospital
for women.

619. The patients treated in the Hospital for Diseases of Women and Children attached to the Lying-in Hospital numbered 348 in 1879, and 275 in 1880. The deaths in the same institution numbered 13 in the former, and 15 in the latter year. Therefore, 1 patient in 27 died in 1879, and 1 in 18 in 1880.

Deaths of
mothers in
Lying-in
Hospital.

620. In the Melbourne Lying-in Hospital 638 women were confined in 1879, and 586 in 1880. Nine died in the former year, and 6 in the latter. Thus, 1 woman in 71 died in 1879, and 1 woman in 98 in 1880. From the founding of the institution to the end of 1880, 9,188 women were accouched therein, of whom 119 died, or 1 death to every 77 confinements.*

Deaths of
infants in
Lying-in
Hospital

621. The infants born alive in the Lying-in Hospital numbered 602 in 1879 and 532 in 1880, and of these, 47 in the former and 30 in the latter year died before leaving the institution; thus 1 infant in 13 died in 1879 and 1 infant in 18 in 1880.†

Sickness and
deaths in
children's
hospital.

622. In the Melbourne Hospital for Sick Children 389 cases were treated, and 25 deaths occurred, in 1879; 438 cases were treated, and 36 deaths occurred, in 1880. These numbers furnish proportions of 1 death to every 16 patients in the former, and 1 death to every 12 patients in the latter year.

Sickness and
deaths in
benevolent
asylums.

623. Cases of sickness in benevolent asylums numbered 2,688 in 1879, and 1,178 in 1880; deaths numbered 176 and 141. The deaths were thus to the cases treated in the proportion of 1 to 15 in 1879, and of 1 to 8 in 1880.

Sickness and
deaths in
Immigrants'
Home.

624. In the Melbourne Immigrants' Home the cases of sickness in 1879 amounted to 959, and the deaths to 76, or 1 death to every 13 cases of sickness. In 1880 the cases of sickness in this institution numbered 623, and the deaths 84, or 1 death to every 7 cases of sickness.

Sickness and
deaths in
orphan
asylums.

625. In 1879 the cases of sickness in orphan asylums numbered 204, and the deaths 3. In 1880 these numbers were 293 and 5 respectively. Thus, in 1879, 1 death occurred to every 68 cases of sickness, and, in 1880, 1 death to every 59 cases of sickness.

* See paragraph 614 *ante*.

† See paragraph 557 *ante*.

626. In hospitals for the insane during 1879 the cases of sickness numbered 2,011, and during 1880 they numbered 2,298. The deaths amounted to 225 at the former period, and 221 at the latter, or an average of 1 death to every 9 cases of sickness in 1879, and 1 to every 10 cases in 1880.

Sickness and deaths in lunatic asylums.

627. In gaols and penal establishments 5,473 cases of sickness occurred in 1879, and 5,485 in 1880. The deaths in these two years respectively were 38 and 43. Thus, 1 death occurred to every 144 cases in 1879, and 1 death to every 128 cases in 1880. The proportions of deaths to cases of sickness are smaller in these than in any other public institutions; but it is also probable that the cases of sickness dealt with are, on the average, of a lighter character than those treated in the other institutions.

Sickness and deaths in gaols.

628. Altogether the number of deaths in penal or charitable institutions in 1880 was 2,047, or 1 to every 6 deaths which took place in Victoria during the year. The deaths in such institutions were in the three previous years in the same proportion as in 1880, in 1876 in that of 1 to every $6\frac{1}{2}$, in 1875 in that of 1 to every $7\frac{1}{3}$, and in 1874 and 1873 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 1880:—

Deaths in public institutions.

DEATHS IN PUBLIC INSTITUTIONS, 1880.

Number of Deaths.		Number of Deaths.	
General hospitals ...	1,413	Hospitals for the insane ...	221
Hospital for Diseases of Women and Children ...	15	Female refuges ...	24†
Lying-in Hospital ...	36*	Industrial and reformatory schools ...	25
Hospital for Sick Children ...	36	Gaols ...	40
Benevolent asylums ...	141	Penal establishments ...	3
Melbourne Immigrants' Home	84		
Orphan asylums ...	5	Total ...	2,047
Blind asylum ...	3		
Eye and Ear Hospital ...	1		

NOTE.—In 1880 no death occurred in the Deaf and Dumb Asylum.

629. In England and Wales during 1880, 1 out of every 10 deaths registered occurred in a work-house, hospital, or lunatic asylum. Of such deaths, 65 per cent. occurred in the first of these institutions, 26 per cent. in the second, and 9 per cent. in the third.

Deaths in public institutions in England.

630. The number of cases of successful vaccination in 1880 was 19,132; and, as the number of births was 26,148, it appears that 73 per cent. of the children born were vaccinated. Part of the remainder are accounted for by death—1,589, or 6 per cent. of those born, having died before they were 3 months old, and 2,193, or 8 per cent., before they were 6 months old. The vaccinations amounted in 1880 to 73 per

Vaccinations.

* This includes the deaths of 30 infants born in the institution.

† This includes the deaths of 21 children of inmates of the Female Refuge, Madeline street.

cent. of the births, in 1879 and 1878 to 82 per cent., in 1877 to 87 per cent., in 1876 to 80 per cent., in 1875 to 82 per cent., in 1874 to 83 per cent., and in 1873 to something less than 80 per cent.

Memorandum on vaccination.

631. The question as to the efficacy of vaccination in affording protection against small-pox; as to the danger of conveyance of other diseases by vaccination; and as to the desirability of obtaining the lymph direct from the cow, was discussed in the Legislative Assembly of Victoria on the 17th June 1880, and in consequence the Central Board of Health published a memorandum* in which they showed that the evidence as to the protective efficacy of vaccination was simply overwhelming; that vaccination when properly performed cannot convey any disease except vaccinia; and that the vaccine lymph now in use has not deteriorated or become contaminated by its repeated transmission through the human body, therefore it is unnecessary to resort to the cow for a fresh supply.

Meteorological observations, 1880.

632. The following are the results of meteorological observations taken at different stations throughout the colony during 1880. These places are arranged in the table in the order of their altitude above the level of the sea. The last two 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 AT VARIOUS STATIONS, 1880.

Stations.	Height above Sea-level.	Temperature in the Shade.		
		Max.	Min.	Mean.
	feet.	°	°	°
Portland	37·0	108·0	32	57·4
Melbourne	91·3	106·5	29	57·8
Cape Otway	270·0	104·0	38	55·7
Wilson's Promontory	300·0	96·0	40	56·3
Sandhurst	758·0	106·5	32	58·3
Ballarat	1,438·0	108·5	28	56·3

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	29·976	194	34·20	·737	4·0
Melbourne	29·920	147	28·48	·717	6·0
Cape Otway	29·724	160	36·64	·883	8·0
Wilson's Promontory	29·587	201	56·60	·761	5·8
Sandhurst	29·208	100	22·39	·744	4·2
Ballarat	28·501	132	29·34	·641	5·9

* Parliamentary Paper No. 96, Session-1880-81.

633. The following are the results for Melbourne in each of the Meteorology in Melbourne, 1864 to 1880. seventeen years ended with 1880 :—

METEOROLOGICAL OBSERVATIONS AT MELBOURNE.—RETURN FOR SEVENTEEN 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
Means	105·65	29·93	57·23	29·933	130	25·805	·715	5·9

634. It will be noticed that in 1880, according to observations taken Observations in 1880 compared with 17-year means. at the Melbourne Observatory, the maximum temperature was about a degree above, and the minimum temperature about a degree below, the mean of the maxima and minima in 17 years; that the mean temperature, the mean atmospheric pressure, the mean relative humidity, and the mean amount of cloud were all a fraction above the average of the same period; also that rain fell on 17 more days and 2½ more inches of rain fell than the average annual number during the period.

635. During the period of 17 years a higher temperature than the Observations in 1880 and former years compared. maximum of 1880 was experienced in seven, and a lower one than the minimum in three, different years; the mean temperature was equalled in one and exceeded in one year; in two previous years the mean atmospheric pressure was lower than in 1880; the number of days' rain was exceeded in one year, and the amount of rainfall in four years; the mean relative humidity was equalled in five and exceeded in three years; and the mean amount of cloud was equalled in three and exceeded in three years.

636. An extended account of the meteorology and climate of Victoria Meteorology elsewhere treated on. will be found in the *Victorian Year-Book*, 1874, paragraphs 54 to 95.