

PART IV.—VITAL STATISTICS.

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

363. It is found convenient to deal with the records according to the periods in which the marriages, births, and deaths 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 in the former case closely, and in the latter case entirely, agree with the actual occurrences during any period. 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 date of birth; the effect of which is, not that the numbers in one period differ much from those in another not distant period of similar duration, but that, in view of the length of time over which the non-registration of a birth 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.

364. The marriages celebrated in Victoria during 1881 numbered 5,896, as against 5,286 in the previous year. The excess in favor of 1881 was thus 610.

365. More marriages took place in 1881 than in any previous year. The number solemnized annually had been almost stationary during the seven years prior to 1880, but in that year an advance was made which has been more than sustained since. In 1881, as has been already stated, the marriages numbered within 104 of 6,000; in only three previous years did the number reach as high as 5,000.*

366. The number of marriages compared with the total population is generally called the marriage rate. This for many years had been

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

Registration system for marriages, births, and deaths.

Time of registration dealt with in compiling statistics.

Marriages, 1881.

Marriages, 1881 and former years.

Marriage rate.

declining in Victoria, for, whilst in the three years prior to 1863 it was above 8 per 1,000 of both sexes and all ages, from 1863 to 1865 it was between 7 and 8, and between 1868 and 1878 it was between 6 and 7, per 1,000. It reached its lowest point, 5·98, in 1879, revived in 1880 to 6·22, and further advanced in 1881 to 6·79, this being the highest rate recorded during the past twelve years. The following table gives the number of marriages and number of persons married per 1,000 of the population during each of the twenty-two years ended with 1881 :—

ANNUAL MARRIAGE RATE, 1860 TO 1881.

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
1881	6·79	13·58
Average of twenty-two years...	6·78	13·56

367. The frequency of marriage in a community depends primarily upon the number of single males at marriageable ages existing therein, modified by the extent to which such males find themselves in prosperous circumstances ; therefore, as has been shown in previous issues of this work,* marriage rates calculated upon a comparison of the marriages with the total population, which is the ordinary method pursued in all countries which compile vital statistics, and is the principle on which those embodied in the last table have been computed, are not reliable, especially in young communities, in the composition of which great and sudden changes sometimes take place in consequence

Marriage rates sometimes misleading.

* See *Victorian Year-Book*, 1879-80, pages 103 and 104, and *Victorian Year-Book*, 1880-1, pages 199 and 200.

of accessions of population from without, followed by periods in which immigration is at a standstill. A more correct method of calculating the marriage rate is to compare the marriages with the number of marriageable males, by which means the children, the married men, and the females—all of which are disturbing elements in the calculation when made in the ordinary way—are left out of account. There are circumstances which may cause variations in the rate calculated in this manner, such as an abnormally large or small proportion of males between 21 and 30—which is essentially the marrying age—or of widowers, the tendency of whom to marry is much greater than that of bachelors; but, notwithstanding these objections, the test, upon the whole, is a much safer one than if based on a marriage rate calculated upon the whole population.

Proportion of marriages to population and single men.

368. The following table gives a statement of the marriage rate in the last five census years,* calculated, first, by comparing the number of marriages with the total population enumerated, and, secondly, by comparing the number of marriages with the number of marriageable men. The numbers refer only to population of European birth or extraction, the Chinese and Aborigines, and the marriages in which they took part, having been eliminated therefrom:—

PROPORTION OF MARRIAGES TO POPULATION AND TO MARRIAGEABLE MALES, 1854 TO 1881.

Year of Census.	Exclusive of Chinese and Aborigines.				
	Total Population.	Bachelors aged 20 and upwards, and Widowers at all ages.	Marriages in Census years*	Proportion of Marriages.	
				Per 1,000 of the Population.	Per 1,000 Bachelors and Widowers.
1854	234,361	70,865	3,696	15·77	52·16
1857	383,668	95,427	4,465	11·64	46·79
1861	513,896	106,940	4,528	8·81	42·34
1871	712,263	89,921	4,715	6·62	52·43
1881	849,438	99,824	5,732	6·75	57·42

Tendency to marry greater than at any former period.

369. 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, until 1881, when, as compared with 1871, a slight revival is indicated. Supposing the frequency of marriage to denote prosperity, a consideration of this column alone would lead to the conclusion that at the last two periods the colony was in a depressed condition, not only as compared with the time when the excitement caused by the early gold discoveries often led to matrimony being entered into recklessly, but

* Periods commencing six months before and ending six months after the date of each census.

as compared with 1861, when that excitement had subsided. The numbers in the last column, however, tell a very different tale, those for 1861 showing that, at that period, marriage, taking into account those of an age and condition fit to contract it, was less common than at any other; and the latest period was that at which the marriage rate, calculated according to the more correct principle, was higher than at any previous period for which records are available.

370. I have spoken of females as amongst the disturbing elements which ought to be eliminated in making calculations of the marriage rate, and this statement will doubtless cause surprise to many; but nothing is more certain than that, in countries where monogamy prevails, a comparatively small proportion of females—much smaller than is generally supposed—suffices to enable every man desirous of marrying to obtain a wife. At the present time, when, in proportion to the single men living, the number marrying is higher than at any previous period of the colony's history, only 1 in 17 actually does marry annually, and there is no reason to suppose that, if the total number of females in the colony was equal to or even exceeded that of males, the marriages would be more numerous, or, if it was reduced by half, that the marriages would be fewer than they are now. This will be better understood by reference to the following table, which shows the number of marriageable females, and the proportion of them which married in each of the last five census years:—

Marriage rate of females.

PROPORTION OF MARRIAGES TO MARRIAGEABLE FEMALES, 1854 to 1881.

Year of Census.	Exclusive of Chinese and Aborigines.	
	Spinsters aged 15 and upwards and Widows at all ages.	Proportion of Marriages per 1,000 Spinsters and Widows.*
1854	15,083	245·04
1857	26,317	169·66
1861	37,006	122·36
1871	65,386	72·11
1881	119,360	48·02

371. It will be seen that the fact of marriageable females being numerous has at no period caused any increase in their marriage rate; but, on the contrary, as the number of such females has increased, the rate at which they have married has largely declined. A comparison of this and the previous table will show that in 1881, for the first time, marriageable females exceeded marriageable males, the excess being nearly 20,000, or about a fifth. Notwithstanding this, however, only

Female marriage rate declining.

* For number of marriages on which these calculations are based, see last table.

5,732 out of the whole number, amounting to over 119,000, got married in the year; the proportion of females marrying to those ready to marry being much smaller than at any previous period.

372. The declension in the female marriage rate will be better realized when it is considered that in 1854 about 1 in 4 of all the spinsters and widows in the colony married in the year—which proportion, three years after, had fallen to 1 in 6; ten years later it had fallen to 1 in 8; ten years still later it had fallen to 1 in 14; and ten years later, viz., in 1881, it had reached the exceedingly low point of 1 in 21. The tide has probably now turned; the youthful native born male population is growing up to manhood, and is commencing to fill the gap in early adult life caused by the passing on to later periods of the immigrants who, at the time of the discovery of the first goldfields, came to Victoria unaccompanied by persons at younger ages to supply their places as they passed onward or disappeared altogether from the scene; and it may be expected that, if the colony continues to enjoy a fair amount of prosperity, the marriages will increase in proportion to the available females, as they have already done in proportion to the available males.

373. The following table gives a statement of the number of marriages to every 1,000 of the population of the various Australasian colonies for each year from 1865 to 1880, except Western Australia, for which colony it is given for the last nine of those years:—

MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1865 TO 1880.*

Year.	Number of Marriages † per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	7·29	8·90	13·27	9·45	...	6·27	10·47
1866 ...	6·71	8·22	11·61	8·12	...	5·93	10·32
1867 ...	6·91	7·79	9·54	8·20	...	6·10	9·69
1868 ...	6·99	8·17	8·33	7·37	...	6·57	9·35
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
1880 ...	6·22	7·72	6·97	8·69	7·42	7·38	6·71
Means ...	6·52	7·85	8·69	8·06	6·77	6·71	8·36

* For the number of marriages in the various colonies during the nine years ended with 1881, see General Summary of Australasian Statistics (third folding sheet) *ante*.

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

Probability of female marriage rate reviving.

Marriage rates in Australasian colonies.

374. In every one of the neighboring colonies the marriage rate is higher than in Victoria, and as Victoria is certainly second to none of the others in point of wealth and prosperity, this may create surprise in the minds of those who fail to realize the fact that marriage rates, calculated upon the total population, do not afford an indication of the amount of prosperity in a community so much as of the proportion which marriageable men bear to it as a whole. There is little doubt that this proportion is lower in Victoria than in any one of those colonies, the reason of which is to be found mainly in the fact that New South Wales, Queensland, South Australia, and New Zealand have, for years past, introduced large numbers of adults at the cost of the State, and, as is always the case when immigration is subsidized, these have been accompanied or followed by a steady stream of unassisted immigrants. As regards Western Australia and Tasmania, they are comparatively settled communities, with populations probably in a nearly normal condition as regards age, and, consequently, containing proportionally as large a number of single men as are to be found under the natural condition of things existing in old established countries. Besides, not one of the neighboring colonies has been subjected, in the early years of its history, to so large an influx of adult male immigrants unaccompanied by persons at younger ages, followed by a cessation of immigration, as has taken place in Victoria at and since the time of the early gold discoveries. This colony, however, as the young population is growing to a marriageable age, is rapidly assuming a normal condition, and this is already bringing about an improvement in the marriage rate, which, with perhaps occasional brief interruptions, will assuredly continue until marriages bear as high a proportion to the total population as they do in any of the neighboring colonies.

Reasons for marriage rates being higher in other colonies than in Victoria.

375. It will be observed that the marriage rate in Victoria declined with much regularity throughout the period to which the table refers until it reached a minimum in 1879. In 1880 it recovered itself slightly, and, according to the figures in a previous table,* it rose still higher in 1881. In all the other colonies except New South Wales and Tasmania the rate was lower in 1880 than in the previous year, whilst in two of them, viz., Queensland and New Zealand, it was lower than in any year of the period. The last named, in which, a few years since, the marriage rate was higher than in any other Australasian colony, had fallen in 1880 to the lowest position but one. In South Australia, Western Australia, and Tasmania the rates were high, although in the two first they had fallen slightly as compared with those in the previous year.

Comparison of marriage rates of colonies in 1880 and former years.

* See table following paragraph 366 ante.

376. 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 sixteen years :—

Order in 1880.	Order in a Series of Years.
1. South Australia.	1. Queensland.
2. New South Wales.	2. New Zealand.
3. Western Australia.	3. South Australia.
4. Tasmania.	4. New South Wales.
5. Queensland.	5. Western Australia.
6. New Zealand.	6. Tasmania.
7. Victoria.	7. Victoria.

377. It will be noticed that Victoria is at the bottom of both lists, but all the other colonies change their places. Queensland and New Zealand, which, during a series of years, stood first and second, had fallen in 1880 to the fifth and sixth positions, whilst South Australia, Western Australia, and Tasmania, which, during a series of years, had stood third, fifth, and sixth respectively, rose in 1880 to the first, third, and fourth positions.

378. The marriage rate in 1880 of the colonies situated on the Australian continent, taken as a whole, shows a considerable improvement upon the very low rate which prevailed in 1879, and was also higher than in any year since the first to which the table relates; but in those colonies with the addition of Tasmania and New Zealand the marriage rate, although higher than in 1879, was lower than in any other of the years mentioned, as will be seen by the following table :—

**MARRIAGE RATES IN AUSTRALIA AND AUSTRALASIA,
1873 TO 1880.**

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
1880	7·15	7·08
Means	7·08	7·22

379. Returns of marriages, births, and deaths are obtainable for few British colonies outside of Australasia. The following are the marriage rates in those colonies — which, it is to be regretted, are, for the most part, of only minor importance—for which such

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

Order of colonies in respect to marriage rates.

Positions of colonies as regards marriage rates.

Marriage rates in Australia and Australasia.

Marriage rates in certain British possessions.

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.

	Years.	Annual Rate per 1,000 of the Population.*		Years.	Annual Rate per 1,000 of the Population.*
Ceylon	... 1867-76	... 7.3	West Indies—		
Mauritius	... 1871-75	... 2.5	St. Vincent	1872-76	... 6.3
Seychelles	... 1875-77	... 8.7	Barbadoes	... 1872-77	... 3.7
Bermudas	... 1871-75	... 8.3	Grenada	... 1871-75	... 5.6
West Indies—			Dominica	... 1871-75	... 6.9
St. Lucia	... 1878-79	... 5.2	Trinidad	... 1871-75	... 3.8

380. The following table gives a statement of the marriage rates in England, Scotland, and Ireland for each of the twelve years ended with 1879, and gives similar information for each of the eleven years ended with 1878 in such foreign 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 1879.

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
1879 ...	7.2	6.5	4.3	...	...	...	...	...	...	...	...	...	...	...	...
Means	8.2	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

* 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) recorded 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.

Low Euro-
pean mar-
riage rate.

381. 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 1879 than in any year since 1847.*

Australasian
and Euro-
pean mar-
riage rates
compared.

382. 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 three of the Australasian colonies, viz., Queensland, New Zealand, and South Australia, did the mean marriage rate, during the sixteen years ended with 1880, exceed 8 per 1,000, the rate in the first two being considerably greater than, and in the last about the same as, in Holland and France. The average rate in New South Wales is about the same as in Denmark and Switzerland, which are 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.

Marriage
rate in
United
Kingdom.

383. The following, according to the reports of the Registrar-General of England, is the marriage rate of the United Kingdom during the nine years ended with 1879. 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 1879 than in any previous year named :—

MARRIAGE RATE IN THE UNITED KINGDOM, 1871 TO 1879.

				Marriages per 1,000 of the Population.		Marriages per 1,000 of the Population.	
1871	...	...	8·21	1877	...	...	7·32
1872	...	...	7·98	1878	...	...	7·09
1873	...	...	8·03	1879	...	...	6·69
1874	...	...	7·79				—
1875	...	...	7·67	Mean	...	...	7·61
1876	...	...	7·70				—

* In 1880, returns of which are at hand, the marriage rate in England had risen to 7·5.

† See footnote (†) to table following paragraph 380 *ante*.

384. Although rural rather than urban life tends to the promotion of marriage, it happens that, since the marriage ceremony is generally performed in towns, whatever may be the ordinary residence of the persons marrying, the marriage rate recorded there is much higher than that in the country. In 1881 it was in country towns nearly four times, and in the metropolis almost three and a half times, as high as in rural districts, as will be seen by the following 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 :—

Marriage rates in town and country.

MARRIAGES IN URBAN AND COUNTRY DISTRICTS, 1881.

Districts.	Estimated Mean Population.	Marriages, 1881.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs	284,874	2,742	9·63
Towns outside Melbourne and suburbs	188,000	2,052	10·91
Country districts	396,068	1,102	2·78
Total	868,942	5,896	6·79

385. Marriages in Victoria have generally been more numerous in the autumn than in the spring quarter, and least numerous in the summer and winter quarters. In 1881, however, the number in the spring was greater than in the autumn 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.

MARRIAGES IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1881.		Percentage in Ten Years: 1871 to 1880.
		Number of Marriages.	Percentage.	
Summer ...	March	1,437	24·37	24·43
Autumn ...	June	1,525	25·87	26·19
Winter ...	September	1,332	22·59	23·81
Spring ...	December	1,602	27·17	25·57
	Year	5,896	100·00	100·00

386. 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

Former condition of persons married.

in each of these groups during 1881 and the percentage during the previous decennial period :—

FORMER CONDITION OF PERSONS MARRIED.

Previous Condition.	Year 1881.		Percentage in Ten Years : 1871 to 1880.
	Number of Marriages.	Percentage.	
Bachelors and spinsters	4,901	83·12	80·59
Bachelors and widows	316	5·36	7·10
Widowers and spinsters	444	7·53	7·75
Widowers and widows	235	3·99	4·56
Total	5,896	100·00	100·00

Divorced persons.

387. 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. Seven divorced males and 4 divorced females were married in 1881 ; five of the divorced males married spinsters, and one a widow ; whilst 2 of the divorced females married bachelors, and 1 a widower. In the remaining case the divorced parties were reunited.

Deserted husbands and wives.

388. Persons whose wives or husbands have not been heard of for a period of seven years may marry again without rendering themselves liable to be prosecuted for bigamy ; but such unions are subject to the serious disadvantage that the issue by the second marriage would be illegitimate, and the marriage itself void, if it should turn out that the first husband or wife was alive at the time thereof. Four males and 10 females availed themselves of this provision in 1881. The former, of whom one married a widow, and the remainder spinsters, had not heard of their former wives for 7, 9, 10, and 24 years respectively. Of the females, 9 married bachelors, and 1 a widower ; 3 had not heard of their former husbands for 7 years, 2 for 8 years, and the remainder had not heard of theirs for 11, 16, 20, 24, and 27 years respectively. In the previous year, 3 deserted males and 10 deserted females remarried.

Remarriages.

389. In 1881, 679 widowers and 551 widows re-entered the marriage state. During the last eight 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, which is confirmed by the results of the recent census. 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 1881 :—

REMARRIAGES, 1871 TO 1881.

Year.	Number of Remarriages of—		Year.	Number of Remarriages of—	
	Widowers.	Widows.		Widowers.	Widows.
1871 ...	587	605	1878 ...	634	585
1872 ...	522	552	1879 ...	637	553
1873 ...	586	591	1880 ...	603	520
1874 ...	602	593	1881 ...	679	551
1875 ...	614	583			
1876 ...	678	623			
1877 ...	666	600			
			Total ...	6,808	6,356

390. The marriages of 6 Aboriginal males with Aboriginal females are included in the returns of 1881. In the previous year, 9 such marriages took place. Marriages of
Aborigines.

391. Only 4 Chinese males were married in Victoria in the year 1881, as against 13 in 1880, 11 in 1879, 13 in 1878, and 20 in 1877. During the fifteen years prior to the year under review, 254 Chinamen 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 :— Marriages of
Chinese.

NATIONALITY OF WOMEN MARRYING CHINESE, 1866 TO 1881.

Birthplace of Wives.	Number of Marriages of Chinese Males.		
	Fifteen Years : 1866 to 1880.	Year 1881.	Total : 1866 to 1881.
Victoria ...	105	3	108
Other Australian colonies ...	45	...	45
England ...	50	1	51
Scotland ...	15	...	15
Ireland ...	24	...	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 ...	5	...	5
Total ...	254	4	258

Marriages
by different
sects.

392. The marriage ceremony in Victoria may be performed either by the registered clergy of any religious sect or by lay registrars. In 1881, 89 per cent. of the marriages were celebrated according to the former and 11 per cent. according to the latter system. Lay marriages are becoming more and more popular. The number performed during 1881 exceeded by 59 the number in 1880, and was greater than 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 1881, and during the previous ten years :—

MARRIAGES BY DIFFERENT DENOMINATIONS.

Marriages performed according to the usages of the—	Marriages celebrated in—			
	Year 1881.		Ten Years : 1871 to 1880.	
	Number.	Percentage.	Number.	Percentage.
Church of England	1,553	26·34	12,264	24·63
Presbyterians	1,069	18·13	10,186	20·46
Wesleyans	962	16·32	8,155	16·38
Bible Christians	129	2·19	840	1·69
Independents	276	4·68	2,698	5·42
Baptists	237	4·02	1,840	3·70
Lutherans	58	·98	508	1·02
Unitarians	4	·07	9	·02
Society of Friends ... ..	...	...	4	·01
Calvinistic Methodists	8	·13	82	·16
Roman Catholics	869	14·74	8,568	17·21
Jews	18	·31	211	·42
Other sects	66	1·12	528	1·06
Lay registrars	647	10·97	3,891	7·82
Total	5,896	100·00	49,784	100·00

Duplicate
marriages.

393. 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. One such instance was discovered in the returns for 1881, in which case a couple who had been previously united by a lay registrar were married a second time according to the Jewish rites.

Sects of
Aboriginals
married.

394. Of the 6 Aboriginal marriages which took place in 1881, 3 were solemnized according to the rites of the Moravians, 2 according to those of the Church of England, and 1 according to those of Wesleyans.

Sects of
Chinese
married.

395. Of the marriages of Chinese in 1881, 2 were celebrated according to the rites of the Church of England, 1 according to those of the Wesleyans, and 1 was performed by a lay registrar.

396. The returns of the recent census afford an opportunity of comparing the number of marriages performed according to the rites of each particular denomination with the numbers of that denomination in the population, and by taking the mean of the returns of that census and the preceding one, and of the marriages which were performed in the interval which elapsed between the two censuses, the same information is obtained extending over a period of ten years. The result is given in the following table :—

Marriages by different sects.

PROPORTION OF MARRIAGES TO NUMBERS OF EACH DENOMINATION.

Religious Denomination.	Year 1881.			Average number of—		
	Persons of each Denomination	Marriages celebrated.		Persons of each Denomination (1871 and 1881).	Marriages celebrated annually (1871 to 1880).	
		Number	Proportion per 1,000 persons living.		Number.	Proportion per 1,000 persons living.
Church of England ...	311,291	1,553	4·99	284,563	1,226·4	4·31
Presbyterians...	132,591	1,069	8·06	122,787	1,018·6	8·30
Wesleyans ...	108,393	962	8·88	99,209	815·5	8·22
Bible Christians ...	6,660	129	19·37	5,427	84·0	15·48
Independents ...	19,878	276	13·89	19,034	269·8	14·17
Baptists ...	20,373	237	11·63	18,342	184·0	10·03
Lutherans ...	11,149	58	5·20	10,854	50·8	4·68
Unitarians ...	942	4	4·25	979	·9	·92
Society of Friends ...	282	...	...	308	·4	1·30
Calvinistic Methodists ...	712	8	11·24	1,072	8·2	7·65
Roman Catholics ...	203,480	869	4·27	187,050	856·8	4·58
Jews ...	4,330	18	4·16	3,950	21·1	5·34
Other sects ...	8,465	66	...	7,430	52·8	...
Residue ...	33,800*	647†	...	35,932*	389·1†	...
Total ...	862,346	5,896	6·84	796,937	4,978·4	6·25

397. It will be observed that the denomination which solemnizes most marriages in proportion to its numbers in the population is the Bible Christian, and next to it the Independent, the Baptist, and the Calvinistic Methodist, in the order named. In all these cases, except that of the Independent, the proportion in 1881 is higher than that shown for the decenniad. In proportion to their respective numbers, the marriages performed in 1881 according to the rites of the Church of England were more numerous, and of the Wesleyans, Presbyterians, and Lutherans were much more numerous, than those performed according to the rites of the Roman Catholic Church. In the same year the Jews performed fewer marriages in proportion to their numbers than any other denomination.

Sects which perform most marriages and vice versa.

* Including Pagans, those of no denomination and of no religion, and the unspecified.

† Marriages by lay registrars.

Signing with marks.

398. 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 1881, the proportion of those who signed with marks to the total numbers married being also shown:—

SIGNING MARRIAGE REGISTER WITH MARKS, 1881.

Persons Married.	Numbers Married.	Signing with Marks.	
		Total Number.	Number in every 100 Married.
Bridegrooms	5,896	171	2·90
Brides	5,896	245	4·16
Mean	5,896	208	3·53

Increased numbers signing in writing.

399. 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 1881 slightly greater than in 1880, 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. Generally, more males than females sign in writing, but an exception to this rule took place in 1880, as will be seen by the following figures, which show the proportions for the last nine years:—

NUMBERS SIGNING WITH MARKS PER 100 MARRIED, 1873 TO 1881.

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
1881	2·90	4·16	3·53

Signing with marks, 1853 to 1872.

400. 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

401. The marriages in which marks instead of writing were made use of in 1881 numbered 373, but in only 43 of these, or rather more than a ninth, did both parties use marks. In the 330 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 sixteenth of the whole, in the case of only about 1 in every 137 marriages could neither party write.

Cases of both signing with marks.

402. In the case of the 6 marriages of Aborigines celebrated in 1881, all signed with marks except one of the males and one of the females.

Signatures of Aborigines.

403. 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 1881 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 1881.			Ten Years: 1871 to 1880.		
	Men.	Women.	Mean.	Men.	Women.	Mean.
Church of England ...	2·45	2·83	2·64	4·54	6·11	5·33
Presbyterians ...	2·15	2·62	2·38	3·67	5·97	4·82
Wesleyans ...	1·45	2·81	2·13	} 4·15	5·33	4·74
Bible Christians ...	3·10	4·65	3·87			
Independents ...	1·45	2·17	1·81	3·37	5·49	4·43
Baptists ...	·42	2·11	1·26	3·48	5·22	4·35
Lutherans ...	...	3·45	1·72	1·77	4·13	2·95
Calvinistic Methodists ...	12·50*	...	6·25*	1·22	6·10	3·66
Roman Catholics ...	5·52	7·59	6·55	10·14	15·43	12·79
Jews ...	...	...	...	·95	·47	·71
Other sects ...	4·54	6·06	5·30	7·01	3·79	5·40
Lay registrars ...	5·41	8·81	7·11	6·60	12·93	9·77
Total ...	2·90	4·15	3·52	5·31	7·93	6·62

404. It will be observed that the proportion of those signing with marks is higher amongst marriages according to the rites of the

Roman Catholic and civil marriages.

* Only 1 case of a Calvinistic Methodist signing with a mark occurred in 1881; but the proportion is high owing to the small number of marriages.

Roman Catholic Church than amongst those celebrated by any other religious sect, but that the numbers in 1881 show a very considerable improvement as compared with the previous ten years. The proportion amongst civil marriages, although usually lower, was in 1881 higher than amongst marriages by Roman Catholics, but these also show some improvement in this respect of late years.

Marriages by Unitarians, Calvinists, and Jews. 405. In the 13 marriages by Unitarians which took place in the eleven years ended with 1881, 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 90 marriages by Calvinistic Methodists, all but two of the males signed in writing, but 5 of the females signed with marks. In the 229 marriages of Jews only 3 persons signed with marks.

Signing with marks in Australasian colonies. 406. A statement of the numbers who sign the marriage register with marks is published in all the Australasian colonies except Western Australia and Tasmania, and from the figures given the following percentages for the four years 1877 to 1880 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 1880.

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
	1880	4·18	4·09	4·13
2. New Zealand ...	1877	3·95	8·54	6·25
	1878	2·96	6·85	4·90
	1879	3·31	6·41	4·86
	1880	2·77	5·38	4·08
3. South Australia ...	1877	6·14	7·89	7·01
	1878	5·09	7·00	6·04
	1879	6·48	6·93	6·70
	1880	5·19	6·81	6·00
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
	1880	6·07	7·27	6·67
5. Queensland ...	1877	7·78	14·15	10·97
	1878	6·23	13·30	9·76
	1879	6·86	11·97	9·41
	1880	5·82	12·09	8·95

407. By these figures it appears that, in the matter of signature to the marriage register, the colonies generally show improvement from year to year, which has, moreover, been most marked in the case of New Zealand and New South Wales ; also that in 1880, taking the mean of the two sexes, the proportion signing with writing in all the colonies was greater than in any previous year named. In New Zealand the proportion of men signing with marks is less, and that of women is greater, than in Victoria. This resulted in the mean of the sexes, for the first time, in 1880 being smaller in the former than in the latter, but only by a very small fraction. Over the period of four years the average number unable to sign in writing was smaller in Victoria than in New Zealand or any other colony.

Victoria the least illiterate colony.

408. 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

409. From the figures it would seem that Scotland is before and Ireland much behind England in point of adult education, but that all are very far behind even the most backward of the Australasian colonies. In England, in the five 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 was found to exist in the same year in any of the colonies named except New South Wales. As regards females, the highest state of proficiency prevailed in the Surrey district, where the percentage signing with marks was 8·1, which was a lower proportion than in New South Wales or Queensland.

Illiteracy in United Kingdom and colonies compared.

410. 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 ever

Signing with marks in France.

100 marriages during 1877 were — males, 18·52 ; females, 29·60 ; mean, 24·06.

Adult education in Victoria superior to elsewhere.

411. 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 not less advanced in this respect than any other European countries. There is, moreover, every reason to expect that as the children educated under the compulsory system of public instruction established in 1873 arrive at marriageable ages, it will become a rare occurrence for a marriage to be attested otherwise than in writing.

Ages of persons married.

412. The age of both bride and bridegroom was specified in the case of all but 75 of the 5,896 marriages which took place in 1881.* In 61 of the defective entries the age of neither party was given ; in 9 cases the age of the husband was stated, not that of the wife ; and in 5 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, 1881.

Ages of Husbands.	Ages of Wives.															Total Husbands.			
	15 to 16.	16 to 17.	17 to 18.	18 to 19.	19 to 20.	20 to 21.	21 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.		65 to 70.	70 to 75.	Unspecified.
17 to 18 years...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
18 to 19 "	...	1	3	2	1	1	1	...	...	...	...	...	...	...	...	...	...	...	9
19 to 20 "	...	1	7	6	10	4	11	...	...	...	...	...	...	...	...	...	...	...	39
20 to 21 "	...	2	1	8	9	18	20	31	2	...	...	...	...	...	...	...	...	...	91
21 to 25 "	...	6	15	64	145	229	228	1096	157	15	3	2	1	...	...	...	...	2	1963
25 to 30 "	...	3	10	31	83	152	172	904	411	60	13	6	...	...	...	...	...	3	1848
30 to 35 "	...	2	3	12	18	36	45	289	226	61	29	3	1	...	...	...	...	3	728
35 to 40 "	1	3	1	13	18	123	104	66	49	12	5	...	...	...	...	1	396
40 to 45 "	1	4	5	6	65	52	54	32	34	10	3	...	...	...	...	266
45 to 50 "	2	4	2	34	40	32	41	24	23	7	4	2	...	...	215
50 to 55 "	3	3	1	9	21	13	29	21	22	8	3	2	...	...	135
55 to 60 "	1	...	...	2	6	9	13	12	14	6	8	6	1	...	78
60 to 65 "	1	1	1	5	3	6	7	2	5	1	...	32
65 to 70 "	2	3	4	2	1	3	...	...	15
70 to 75 "	1	3	...	1	...	...	1	3	...	...	9
75 to 80 "	1	...	1	...	...	1	...	1	4
Unspecified	3	1	1	1	...	...	...	...	...	...	...	...	...	61†	66
Total wives...	13	34	129	273	475	498	2567	1021	314	217	121	87	33	19	22	2	1	70	5896

NOTE.—This table may be read thus :—Three men between 50 and 55 married girls between 18 and 19 ; a woman between 45 and 50 married a man between 21 and 25, &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 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.”

† Including 5 female minors.

413. An examination of the 5,821 cases in which the ages of both parties are specified will show that in 1,727 instances, or 29 per cent. of the whole, both parties to the marriage were about the same age; in 397 instances, or 7 per cent. of the whole, the wife was older than the husband; and in 3,747 instances, or 64 per cent. of the whole, the husband was older than the wife.

Relative ages of husband and wife.

414. It also appears that 5,416, or more than nine-tenths of the bridegrooms, were between the ages of 21 and 50, and that 3,811, or nearly two-thirds of them, were between the ages of 21 and 30; and that 5,365, or about nine-tenths of the brides, were between the ages of 18 and 40; and that 3,588, or less than two-thirds, were between the ages of 21 and 30; and, further, that only 50 of the bridegrooms, but as many as 924 of the brides, were under 20 years of age.

Age at which marriage is contracted.

415. 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. Two of the males, however, who married in 1881 had not reached their eighteenth year, and 13 of the females had not reached their sixteenth; as many as 141 of the males, or 1 in every 42, and no fewer than 1,427 of the females, or not quite a fourth, had not attained the full age of 21 years. These proportions fluctuate from year to year.

Marriages of minors.

416. As the proportion of minors at marriageable ages existing in the population may vary greatly in different countries, and in the same country at different times, it will readily be understood that a comparison of the marriages of minors with the total number of marriages does not afford an infallible test of the tendency to marry under age, to determine which accurately the number of minors marrying should be compared with the number of marriageable minors in the population. This has been done for the last two census years, and the result is given in the following table:—

Marriages of minors.

MARRIAGES OF MINORS, 1871 AND 1881.

Census Years.	Number of Marriageable Minors.		Number of Minors who Married.		Proportion of Minors who Married to every 1,000 Marriageable Minors Living.	
	Males Aged 17 to 21.	Females Aged 15 to 21.	Males.	Females.	Males.	Females.
1871 ...	19,816	30,306	96	1,254	4.84	41.38
1881 ...	37,675	57,863	141	1,427	3.74	24.66

417. According to the table, the proportion of minors marrying has become greatly reduced during the ten years preceding the recent census. The change applies to both sexes, but as marriages of

Decreasing tendency to marry under age.

male minors have never been numerous in Victoria, the diminished proportion chiefly affects the females. It should, however, be mentioned that 1881 is not a fairly representative year, the marriages of minors in it having been below the average. There is no doubt, however, that such marriages have much decreased; they reached the highest point in 1875, and have declined ever since.

Marriages of minors in Victoria and England.

418. From the experience of Victoria in the last ten years, it would appear that, in proportion to the total numbers marrying, more females but fewer males marry under age in this colony than in England and Wales. This is shown by the figures in the following table:—

MARRIAGES OF MINORS IN VICTORIA AND ENGLAND AND WALES.

Persons Married.	In every 100 Marriages, Numbers under 21 Years of Age.		
	In Victoria.		In England and Wales.
	Year 1881.	Ten Years: 1871 to 1880.	Ten Years: 1868 to 1877.
Bridegrooms ...	2·40	2·52	7·90
Brides ...	24·20	28·32	21·91
Mean ...	13·30	15·42	14·90

Ages of minors marrying in Victoria and England.

419. By means of the returns of the recent census, it has been possible to analyze still further the marriages of minors, and to show the proportion of the males and females at each year of age who contract them to the total number of males and females living at the same age. Similar results for England and Wales are available,* and are contrasted in the following table with the results relating to Victoria:—

AGES OF MINORS† MARRYING IN VICTORIA AND ENGLAND AND WALES.

Age last Birthday.	Victoria.				Proportion of Marriages per 1,000 Marriageable Minors			
	Marriageable Minors at Census of 1881.		Minors who Married. (Mean of Years 1880 and 1881.)		Males.		Females.	
	Males.	Females.	Males.	Females.	Victoria. (Mean of 1880 and 1881.)	England and Wales. (Mean of 1870 to 1872.)	Victoria. (Mean of 1880 and 1881.)	England and Wales. (Mean of 1870 to 1872.)
15	...	10,076	...	11	...	...	1·09	·18
16	...	10,209	...	40	...	·02	3·92	1·53
17	9,718	10,100	4	137	·41	·41	13·56	9·33
18	9,763	9,966	10	267	1·02	4·04	26·79	36·39
19	9,580	9,352	36	424	3·76	20·34	45·34	72·46
20	8,614	8,160	102	494	11·84	52·98	60·54	105·84
Total...	37,675	57,863	152	1,373	4·03	18·32	23·73	34·08

* See 35th annual report of the Registrar-General of England, page xii.

† In this table, and that following paragraph 416, marriageable minors have been considered to be males from 17 to 21, females 15 to 21. In England there were 4 marriages of males at 16, but there were none at that age in Victoria.

420. It appears that in the case of both males and females the tendency to marry under age is much greater in England and Wales than in Victoria. This, as regards females, is the reverse of the result obtained by comparing the marriages of those under 21 with the total number married.* Except at 17 years, when the proportions are equal, the English proportions relating to males are higher at each age than those of Victoria, but in the first three years of minority the Victorian proportions relating to females are higher than those of England. This, however, is much more than made up in the three succeeding years.

Marriage rate of minors lower in Victoria than England.

421. The births registered in Victoria during 1881 numbered 27,145, as against 26,148 in 1880. The increase in the year under review, as compared with the previous one, was thus 997.

Births, 1881.

422. The number of births in 1881 was the highest in the last eight years; it was, however, exceeded in five of the years prior to that period, viz.—1873, when the births numbered 28,100; 1872, when they numbered 27,361; 1871, when they numbered 27,382; 1870, when they numbered 27,151; and 1868, when they numbered 27,243.†

Births in 1881 and former years.

423. The birth rate had been declining steadily for many years until 1881. It recovered itself slightly in that year, being higher than in 1880, but still lower than in any previous year. The following are the figures for the last twenty-two years:—

Birth rate.

ANNUAL BIRTH RATE, 1860 TO 1881.

						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
1881	...	...	...	...	...	31·24
Average of twenty-two years					...	36·93

* See table following paragraph 418 ante.

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

Proportion of births to population and to married women.

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

PROPORTION OF BIRTHS TO POPULATION AND TO MARRIED WOMEN.

Year of Census.	Enumerated Population.	Married Women under 45 Years of Age.	Legitimate Births.	Proportion of Legitimate Births.	
				Per 1,000 of the Population.	Per 1,000 Married Women under 45 Years of Age.
1871	731,528	88,561	26,805	36·64	302·67
1881	862,346	84,831	25,675	29·77	302·66

Reason for decline of birth rate.

425. It will be noticed that the married women at reproductive ages were fewer by 3,730 in 1881 than in 1871, that the proportion of births to such women, viz., $302\frac{2}{3}$ per 1,000, was exactly the same in both years, but that the proportion of births to the total population was considerably less in 1881 than in 1871. Thus, while the birth rate, based upon a comparison of the births with the married women, remained perfectly steady, that rate based upon a comparison of the births with the population showed a falling-off of nearly 7 per 1,000. The reduction in the birth rate, calculated in the ordinary way, which has been noticed for years past, is therefore conclusively shown to be due to a deficiency in the community of married women at the fruitful period of life. As both marriage and birth rates improved in 1881, it may fairly be hoped that the lowest point has been reached, and that an increase in the number of married women will lead to a corresponding increase in births.

Birth rates in Australasian colonies.

426. Returns of the births in all the Australasian colonies are available to the end of 1880, 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 1865 to 1880, or as many years between those periods as the figures are available for :—

BIRTHS RATES IN AUSTRALASIAN COLONIES, 1865 TO 1880.*

Year.	Number of Births per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	42.40	42.99	43.65	43.90	...	32.56	41.12
1866 ...	39.76	40.22	44.86	42.38	...	29.15	42.89
1867 ...	39.75	41.67	45.66	41.87	...	30.34	42.18
1868 ...	41.08	40.43	43.03	41.51	...	30.03	42.14
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
1880 ...	30.75	39.04	36.92	38.94	32.35	32.91	40.78
Means ...	36.16	39.22	40.75	39.04	32.35	30.42	41.15

427. The birth rates of all the colonies are low as compared with those quoted for the early years named in the table; but it is probable that in New South Wales, Queensland, South Australia, and New Zealand the rates are still abnormally high. The rate in Victoria was never so low as in the last of the years named, which has already been accounted for by the falling-off shown to have taken place in the number of mothers. It is probable that the birth rate in Tasmania, which has revived since 1873, was for a time affected by a similar cause.

Diminished birth rate in all the colonies.

428. 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 sixteen years. It will be observed that Victoria is absolutely last on the list for 1880, and stands fifth in the sixteen-year series:—

Order of colonies in respect to birth rates.

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO BIRTH RATES.

Order in 1880.

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

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 nine years ended with 1881, see General Summary of Australasian Statistics (third folding sheet) ante.

Birth rate in
Australia
and Aus-
tralasia.

429. In the Australasian colonies, taken as a whole, the birth rate had from 1873 to 1877 shown a marked decline. There has, however, been a slight improvement since 1877, as will be seen by the following figures :—

BIRTH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1880.

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
1880	35·33	36·20
Means	35·33	36·00

Birth rates in
British
possessions.

430. 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 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	1878	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.

431. A statement of the birth rates in England, Scotland, and Ireland for each of the twelve years ended with 1879, and in certain foreign countries for each of the eleven years ended with 1878, is given

* Registrations incomplete.

† Including still births.

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

BIRTH RATES IN EUROPEAN COUNTRIES, 1868 TO 1879.

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
1879...	35·1	34·4	25·2	...	...	...	...	...	...	...	...	...	...	...	...
Means	35·6	35·1	26·6	30·9	29·9	39·1	42·9	38·6	39·9	31·6	32·1	35·8	25·6	35·1	36·8

432. 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.§ It will be remarked that in 1879 the birth rate in England was lower than in any of the years named in the table except 1869 and 1871, || the birth rate in Scotland than in any of the other years except 1869, and the birth rate in Ireland than in any of those years except 1878.

Discrepancies between birth and marriage rates in European countries.

* 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 380 *ante*.

‡ See footnote (†) to table following paragraph 380 *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 recognized 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.”

|| In 1880, returns of which are at hand, the birth rate in England was 34·6, or lower than in any year named in the table.

Australasian and European birth rates compared.

433. The birth rate of Victoria, taken over a series of years, approximates to that in Italy, is lower than that in 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., New Zealand, Queensland, New South Wales, and South Australia—the rate is about equal to that in Central Europe (excepting Hungary)—the rate in the two former approximating to that in Germany, and in the two latter to that in Austria. 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.

434. According to the reports of the Registrar-General of England, the following is the birth rate of the United Kingdom during the nine years ended with 1879 :—

BIRTH RATE IN THE UNITED KINGDOM, 1871 TO 1879.

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	1879	...	33·5
1874	...	34·5			—
1875	...	34·0	Mean	...	34·3
1876	...	34·9			—

Birth rates in town and country, 1881.

435. The following table shows the births and birth rates in the metropolis, the extra-metropolitan towns, and the country districts of Victoria during 1881 ; also the estimated population of such divisions about the middle of that year :—

BIRTHS IN URBAN AND COUNTRY DISTRICTS, 1881.

Districts.	Estimated Mean Population.	Births, 1881.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs (Greater Melbourne)	284,874	9,237	32·42
Extra-Metropolitan Towns	188,000	6,589	35·05
Country districts ...	396,068	11,319	28·58
Total ...	868,942	27,145	31·24

Birth rates in town and country, 1873 to 1881.

436. The next table shows the birth rates in the same three divisions of the colony during each of the last nine years. 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 later years, however, the metropolitan rate was much above that of the country districts, but was still below that of the extra-metropolitan towns :—

BIRTH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1881.

Year.	Number of Births per 1,000 of the Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	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
1881 ...	32·42	35·05	28·58	31·24

437. The mean population, the number of births, and the birth rate during 1881; also the birth rate during the ten years, 1871 to 1880, in the different municipalities, &c., forming the component parts of the district of Greater Melbourne, are shown in the following table:—

Birth rates in metropolitan sub-districts.

BIRTH RATES IN GREATER MELBOURNE, 1871 TO 1881.

Sub-districts.	Year 1881.			Ten Years: 1871 to 1880.
	Estimated Mean Population.	Births.		Annual Births per 1,000 of Population.
		Total Number.	Number per 1,000 of the Population.	
Melbourne City ...	65,118	1,624	24·94	27·57
Hotham Town ...	17,298	630	36·42	34·03
Fitzroy City ...	23,294	771	33·10	34·57
Collingwood City ...	23,960	810	33·81	36·28
Richmond City ...	23,568	804	34·11	35·96
Brunswick Borough ...	6,277	243	38·71	38·66
Prahran City ...	21,345	676	31·67	32·38
Emerald Hill Town ...	25,581	789	30·84	32·02
Sandridge Borough ...	8,831	344	38·95	38·99
St. Kilda Borough ...	11,718	301	25·69	29·03
Brighton Borough ...	4,797	141	29·39	31·14
Essendon and Flemington Borough	5,126	190	37·07	37·72
Hawthorn Borough ...	6,086	181	29·74	34·13
Kew Borough ...	3,527	93	26·37	26·95
Footscray Borough ...	6,081	244	40·12	45·62
Williamstown Borough ...	9,081	346	38·10	38·88
Remainder of district ...	18,310	501	27·36	25·83
<i>Hospitals, asylums, &c.*</i> ...	3,398†	549	...	...
Shipping in Hobson's Bay and river	1,478†	...	...	·05
Total ...	284,874	9,237	32·42	33·50

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

† Census figures.

Birth rates
in sub-dis-
tricts, 1871
to 1880.

438. It will be observed that during the ten years ended with 1880 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 six municipalities, viz., Fitzroy, Hotham, Prahran, Emerald Hill, Brighton, and Hawthorn, 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., not quite 26 per 1,000, which was even lower than in the rural districts of the colony.*

Birth rates
in sub-dis-
tricts, 1881.

439. During 1881, the rates in all the sub-districts, except Hotham, Brunswick, and the "Remainder of District," were lower than they were in the previous decenniad. The sub-district with the highest birth rate was still Footscray ; those with the lowest rates were Melbourne City, St. Kilda, and Kew ; whilst the "Remainder of District" had a higher rate than any of them.

Birth rate in
London.

440. 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.

441. The births of males in Victoria during 1881 numbered 13,903, those of females 13,242. These numbers furnish a proportion of 105 boys to 100 girls. In the previous ten years 137,275 births of males and 131,435 births of females were registered, giving a proportion of 104·4 boys to 100 girls.

Births of
males and
females in
United
Kingdom.

442. 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 1879, 105·1 boys were born to 100 girls ; and in Ireland, during 1879, 106·7 boys were born to 100 girls.

Twins and
triplets.

443. In 1881, 231 twin births and 3 triple births were registered. In the eleven years ended with 1881, 2,657 cases of twins and 24 cases of triplets were recorded, the total number of births in the same period having been 295,855. There were thus 293,150 confinements in the eleven years, and it follows that 1 mother in every 110 gave birth to twins, and 1 mother in every 12,215 was delivered of three children at a birth.

Illegitimate
births.

444. The illegitimate children born in 1881 numbered 1,382, or 1 in every 20 births registered, a proportion which was higher than in any previous year. The illegitimate births in 1880 and 1879 were set down as 1 in 21 ; in 1878 as 1 in 24 ; in 1877 as 1 in 26 ; in 1876 as 1 in 27 ; in

* See table following paragraph 436 ante.

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 returns prior to 1879 did not show the full extent to which illegitimacy prevailed, and that portion, at any rate, of the apparent increase during the last three years may have resulted from the fact of the scrutiny having been closer than it was before that period.* In the last twelve years, out of 323,006 infants born, 12,006 were traced as having been born out of wedlock, which numbers furnish a proportion of 1 illegitimate child to every 27 births.

445. It was shown in a previous table† that the legitimate births registered in the last two census years were in the proportion of 302 $\frac{2}{3}$ to every 1,000 married women living at the reproductive period of life. Assuming that the illegitimate births bear the same proportion to unmarried women, it follows from the number of such births in 1881 that, exclusive of public prostitutes, who, as they rarely have children, are omitted from the computation, at least 4,564 single women at the fruitful or child-bearing ages were living in concubinage. The total number of unmarried women and widows between 15 and 45 years of age at the date of the census of 1881 was 101,446. It therefore follows that 1 out of every 22 of these was living immorally.

Women living in concubinage.

446. 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 nine years:—

Illegitimacy and concubinage, 1873 to 1881.

ILLEGITIMACY AND CONCUBINAGE, 1873 TO 1881.

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	2,951	4·54
1874	984	3·67	3,251	4·41
1875	779	2·92	2,573	3·36
1876	975	3·64	3,221	4·02
1877	1,010	3·88	3,337	3·85
1878	1,103	4·15	3,644	4·20
1879	1,304	4·86	4,308	4·78
1880	1,254	4·80	4,143	4·39
1881	1,382	5·09	4,564	4·45
Means	1,076	4·02	3,555	4·22

* 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 table following paragraph 424 ante.

Illegitimacy
in Austral-
asian
colonies.

447. Besides Victoria, the only Australasian colonies which publish statistics of illegitimacy are apparently New South Wales, Queensland, and New Zealand. According to these, which possibly may not in every case represent the whole truth,* 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 nine years ended with 1880 :—

ILLEGITIMACY IN AUSTRALASIAN COLONIES, 1872 TO 1880.

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
1880	4·80	4·35	4·31	2·43
Means	3·79	4·19	3·44	1·94

Illegitimacy
in United
Kingdom.

448. 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

* See paragraph 444 ante.

449. 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 1881, in the metropolitan district about 1 birth in 12, in extra-metropolitan towns 1 birth in 20, but in country districts only 1 birth in 37, was registered as illegitimate. In the previous year the proportions were 1 in 13, 1 in 22, and 1 in 35 respectively.

Illegitimacy in town and country.

450. 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 1881 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 1881.		Percentage in Ten Years: 1871 to 1880.
		Number of Births.	Percentage.	
Summer	March ...	6,565	24·18	23·74
Autumn	June ...	7,024	25·88	25·10
Winter	September ...	7,126	26·25	27·15
Spring	December ...	6,430	23·69	24·01
	Year ...	27,145	100·00	100·00

451. The deaths in 1881 numbered 12,302, as against 11,652 in 1880. The increase in the year under notice was thus 650.

Deaths, 1881.

452. Deaths were less numerous in 1881 than in any of the four years 1875 to 1878; they, however, exceeded the number recorded in any other year.*

Deaths, 1881 and former years.

453. The births in 1881 exceeded the deaths by 14,843, or 121 per cent., as against 124 per cent. in 1880. In the sixteen years ended with 1881 the proportion averaged 124 per cent. The following were the births and deaths in each of those sixteen years and the excess of the former 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.

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

EXCESS OF BIRTHS OVER DEATHS, 1866 TO 1881.

Year.	Births.	Deaths.	Excess of Births over Deaths.	
			Numerical.	Centesimal.
				Per Cent.
1866	25,010	12,286	12,724	104
1867	25,608	11,733	13,875	118
1868	27,243	10,067	17,176	171
1869	26,040	10,630	15,410	145
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	124
1881	27,145	12,302	14,843	121
Total in 16 years	426,907	190,008	236,899	124

454. 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 too much 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 1880, 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
Austral-
asian
colonies.

EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN COLONIES,
1873 TO 1880.

Colony.	Excess of Births over Deaths.								Mean of Eight Years.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	
	per cent.	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	256	228
2. South Australia	170	124	84	132	167	148	177	162	146
3. New South Wales	182	156	109	108	142	135	164	151	143
4. Queensland ...	154	128	63	99	113	75	145	172	119
5. Victoria ...	144	119	75	97	104	109	121	124	112
6. Western Australia	94	80	61	140	111	121	138	144	111
7. Tasmania ...	103	83	49	82	58	106	111	104	87

455. 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, part of which difference is probably due to the Australian climate being more healthy and the circumstances of the colonies more favorable to longevity, and part to the fact that the countries named contain a larger proportion than the colonies of the young and the very old. 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.	
			per cent.
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

456. In Victoria, deaths of males in 1881 numbered 7,024, and deaths of females, 5,278. These numbers furnish a proportion of 75 females

Deaths of males and females.

* See also paragraph 432 ante.

to every 100 males, as against 76 in the previous year. Females in 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.

457. The following table shows the death rate of males and females, and of both sexes, during each of the past twenty-one years. 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 1881.

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
1881 ...	456,107	412,835	7,024	5,278	15·40	12·78	14·16
Average of twenty-one years ...					16·91	15·22	16·12

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.

458. 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 the death rate to be in the proportion of about 17 per 1,000 persons living. It should, however, be borne in mind that death rates based merely upon the total population,

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

† See 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. Also *Victorian Year-Book*, 1875, paragraph 342; *Victorian Year-Book*, 1876-7, paragraph 169; and *Victorian Year-Book*, 1877-8, paragraph 271.

Annual
death rate.

Normal
death rate.

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. It will be remarked that the mortality exceeded 17 per 1,000 seven times in the twenty-one years named in the table, but over the whole period it has been very little over 16 per 1,000, In the last five years it has never been so high as 16 per 1,000, whilst in three of those years it was below 15 and in one below 14 per 1,000.

459. It has happened that the last two census years, viz., 1871 and 1881, were years of exceptionally low mortality. In 1871 the death rate of both males and females was the lowest recorded during the whole period of twenty-one years, after which and the death rate in 1880 the next lowest death rate was in 1881. However satisfactory it may be on general grounds that a low rate of mortality should prevail at any time, such a circumstance occurring at two successive census periods is apt to mislead those who attempt, without due allowance, to base conclusions upon the relation which exists between the number of deaths and the population of the colony, as derived from the results of census years alone.

Low mortality in census years 1871 and 1881.

460. The following table shows the death rates of the different Australasian colonies during the sixteen years ended with 1880 :—

Death rates in Australasian colonies.

DEATH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1880.*

Year.	Number of Deaths per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865	16·97	16·41	21·42	14·30	...	13·40	15·13
1866	19·37	17·47	25·67	17·20	...	13·79	12·86
1867	18·06	19·64	17·80	17·48	..	14·48	12·78
1868	15·00	15·83	17·36	14·41	...	14·70	11·94
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
1880	13·70	15·57	13·59	14·85	13·24	16·12	11·46
Means	15·87	15·59	17·86	15·16	15·39	15·25	12·38

* For the number of deaths in the various colonies during the nine years ended with 1881, see General Summary of Australasian Statistics (third folding sheet) ante.

Fluctuations
in the death
rate coinci-
dent in
different
colonies.

461. Considerable fluctuations in the death rates will be noticed from year to year, there being in this respect, however, evidently some connection between the different colonies, especially those on the Australian continent. Thus a high rate of mortality prevailed in all the continental colonies in 1866 and 1867, which in Queensland extended also to 1868, and was caused by the presence of a severe epidemic of measles and scarlatina; Tasmania and New Zealand appear on this occasion to have escaped, as their death rates were not affected. In 1875 and 1876 the same complaints caused a high death rate in all the colonies of the group, New Zealand, however, having been affected only in the first of those years, but Queensland and Tasmania were affected not only in both of them but in 1877, and the former also in 1878. In like manner, low death rates prevailed in all the colonies about 1870 and 1871, extending in the case of some of them to 1872, also about 1879 and 1880.

Normal
death rate
in colonies.

462. In the sixteen years over which the observations extend, the normal death rate of 17 per 1,000 persons living was reached in Queensland nine times, in Victoria, New South Wales, and South Australia four times, in Tasmania twice, and in New Zealand not at all. In the last nine of those years it was reached twice in Western Australia. Queensland is the only colony in which, over a series of years, the death rate has exceeded 17 per 1,000.

Order of
colonies in
respect to
death rates.

463. 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 sixteen years. The colony with the lowest rate is placed first, and that with the highest last. It will be noticed that Victoria occupies the third place in the list for 1880, and the sixth in that showing the average over a series of years :—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO DEATH RATES.

Order in 1880.	Order over a Series of Years.
1. New Zealand.	1. New Zealand.
2. Western Australia.	2. South Australia.
3. Victoria.	3. Tasmania.
4. Queensland.	4. Western Australia.
5. South Australia.	5. New South Wales.
6. New South Wales.	6. Victoria.
7. Tasmania.	7. Queensland.

Death rate
in Australia
and Aus-
tralia.

464. The death rate of the colonies situated upon the continent of Australia taken in combination, and the death rate of those colonies with the addition of Tasmania and New Zealand, are shown in the following table for the eight years ended with 1880 :—

DEATH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1880.

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
1880	14·47	14·01
Means	15·73	15·26

465. It will be noticed that only in 1875 and 1876 did the mortality on the Australian continent exceed 17 per 1,000, and only in the first of these years did it exceed that rate upon the continent combined with the colonies of Tasmania and New Zealand.

Normal death rate in Australia and Australasia.

466. 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 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

Death rates
in European
countries.

467. 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, 1868 to 1879.

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
1879...	20·1	20·2	19·6	...	...	...	...	...	...	...	...	...	...	...	...
Means	21·7	22·0	17·5	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 Euro-
pean death
rate in
1877 and
1878.

468. 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

* 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.

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.

469. The death rate of the United Kingdom, according to the Reports of the Registrar-General of England, was as follows during each of the nine years ended with 1879. It will be observed that 1877 was the year in which the death rate was lowest:—

Death rate in United Kingdom.

DEATH RATE IN THE UNITED KINGDOM, 1871 TO 1879.

			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	1879	...	...	20·5
1874	...	...	21·6				—
1875	...	...	22·2	Mean	...	...	21·1
1876	...	...	20·5				—

470. In every country the death rate is higher in towns than it is in the extra-urban districts. This circumstance, although no doubt partly attributable to the superior healthfulness and immunity from contagion prevailing in the latter, is also to a great extent due to the fact that hospitals and charitable institutions, which are frequented by patients from the country as well as by town residents, are generally situated in the towns; and further, that outside of charitable institutions many persons die who have come from the country on the approach of serious illness for the sake of the superior nursing and medical attendance to be obtained in town. In 1881, the death rate was somewhat higher in the country towns than in Melbourne and suburbs, but in both it was very much higher than in the country districts. The following are the figures for that year:—

Death rates in town and country, 1881.

DEATHS IN URBAN AND COUNTRY DISTRICTS, 1881.

Districts.	Estimated Mean Population.	Deaths, 1881.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs (Greater Melbourne)	284,874	5,505	19·32
Extra-metropolitan Towns	188,000	3,676	19·55
Country districts ...	396,068	3,121	7·88
Total ...	868,942	12,302	14·16

Death rate
in town and
country,
1873 to 1881.

471. The number of deaths per 1,000 of the estimated population of the metropolitan towns (Greater Melbourne), the extra-metropolitan towns, and the country districts of Victoria is given in the following table for each of the last nine years:—

DEATH RATES IN URBAN AND COUNTRY DISTRICTS,
1873 TO 1881.

Years.	Number of Deaths per 1,000 of the Estimated Population.			
	Greater Melbourne	Extra-Metropolitan Towns.	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
1881 ...	19·32	19·55	7·88	14·16

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.

472. It will be noticed that in five of the years the death rate in Melbourne and suburbs was above that in the other town districts; but in the other four years, including 1881, the death-rate in the extra-metropolitan towns was the higher. The greater mortality in proportion to population prevailing in the urban than in the country districts is very striking in all the years. In the former the mortality was invariably much above the normal 17 per 1,000 persons living, whilst in country districts it was always very considerably below that rate.

Death rates
in Mel-
bourne and
suburbs.

473. The following table shows the mean population, the number of deaths, and the proportion of the latter to the former in 1881, also the number of deaths to every 1,000 persons living during the period of ten years commencing with 1871 and ending with 1880, in each of the different municipalities and other sub-districts forming the component parts of the district of Melbourne and suburbs (Greater Melbourne). In order to render the rates of the various districts comparable as far as possible, the deaths in hospitals and similar institutions have been eliminated in the districts where they occurred, but are shown separately near the end of the table:—

DEATH RATES IN GREATER MELBOURNE, 1871 TO 1881.

Sub-districts.	Year 1881.			Ten Years: 1871 to 1880.
	Estimated Mean Population.	Deaths.		Annual Deaths per 1,000 of Mean Population.
		Total Number.	Number per 1,000 of the Population.*	
Melbourne City	65,118	1,056	16.22	16.71
Hotham Town	17,298	273	15.78	17.34
Fitzroy City	23,294	414	17.77	18.63
Collingwood City	23,960	421	17.57	20.14
Richmond City	23,568	389	16.50	17.44
Brunswick Borough	6,277	101	16.09	14.62
Prahran City	21,345	345	16.16	16.89
Emerald Hill Town	25,581	414	16.18	16.53
Sandridge Borough	8,831	159	18.00	17.46
St. Kilda Borough	11,718	137	11.69	14.01
Brighton Borough	4,797	54	11.26	14.00
Essendon and Flemington Borough	5,126	79	15.41	17.84
Hawthorn Borough	6,086	71	11.67	16.94
Kew Borough	3,527	37	10.49	11.84
Footscray Borough	6,081	93	15.29	16.75
Williamstown Borough	9,081	141	15.53	17.94
Remainder of district	18,310	182	9.94	11.85
<i>Hospitals, asylums, &c.</i> †	3,398 †	1,133	...	...
Shipping in Hobson's Bay and river	1,478 †	6	4.06	4.09
Total	284,874	5,505	19.32	20.39

474. It will be observed that in 1881 the death rate in every sub-district of Greater Melbourne, except Brunswick and Sandridge, was below the average of the previous ten years. Low death rate, 1881.

475. The only sub-district which had, according to the average of ten 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, the next in the shipping town of Williamstown, and the next in the rural suburb of Essendon and Flemington. In 1881, the highest death rate was in the shipping town of Sandridge, whilst Collingwood and Fitzroy maintained the next highest rates; but the rates in Williamstown, and Essendon and Flemington, were comparatively low. The lowest death rate, both during 1881 and the period of ten years, was in the shipping; the next in the portion of the district not included in any city, town, or borough; the next during 1881 in Kew; the next in Brighton; and the next in Hawthorn and St. Kilda. During the period of ten years, after the Places in which death rate was highest and lowest.

* In order to compare the death rate with density of population, see also paragraph 86 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."

‡ Census figures.

shipping, the lowest death rate was in Kew and the "remainder of district"; the next in Brighton and St. Kilda; and the next in Brunswick.

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

476. The death rate of Greater Melbourne, taken as a whole, in the calculation of which the deaths in charitable institutions are included, was a fraction over 19 per 1,000 persons living in 1881, and a fraction over 20 per 1,000 in the preceding period of ten years. During the last-named period the annual death rate was over 17 per 1,000 in 7 out of the 18 sub-districts, viz., Collingwood, Fitzroy, Williamstown, Essendon and Flemington, Sandridge, Richmond, and Hotham; but during 1881 it was over 17 per 1,000 in only three sub-districts, viz., Sandridge, Collingwood, and Fitzroy. In considering the death rate of the individual districts, the hospitals, asylums, &c., have been eliminated.

Death rates
in towns of
United
Kingdom.

477. The average mortality of Greater Melbourne 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 it are Portsmouth and Brighton:—

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.

478. 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 order of fatality was March, December, January, whilst more deaths occurred in May than in April or February. The number of deaths in each month of 1881, 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 1881.		Percentage in Ten Years: 1871 to 1880.
	Number of Deaths.	Percentage.	
January	1,090	8·86	10·29
February	1,002	8·14	9·09
March	1,179	9·58	10·17
April	1,014	8·24	9·73
May	1,029	8·37	8·55
June	1,019	8·28	7·44
July	978	7·96	7·89
August	968	7·87	7·37
September... ..	953	7·75	6·81
October	982	7·98	7·09
November	918	7·46	7·12
December	1,170	9·51	8·45
Year	12,302	100·00	100·00

479. In Victoria the summer is, especially 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:—

Deaths at different seasons.

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

Seasons.*	Melbourne, Victoria.	Greenwich, England.	Deaths per 100 at all Seasons.				
			Victoria.		England and Wales.	Scotland.	Ireland.
	Mean Temperature in Shade.	Year 1881.	Average of Ten Years: 1871 to 1880.	Average of Thirty-one Years.	Average of Ten Years.	Average of Five Years.	
Summer ...	65·2	60·5	26·59	29·55	23·24	22·34	20·21
Autumn ...	53·8	44·3	24·89	25·72	24·65	24·71	23·45
Winter ...	50·2	40·0	23·57	22·07	27·49	27·95	30·19
Spring ...	60·3	52·8	24·95	22·66	24·62	25·00	26·15
Year ...	57·6	49·4	100·00	100·00	100·00	100·00	100·00

* 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.

Deaths at
each age,
1881.

480. The following table shows the number of deaths at various periods of age registered in Victoria during the year 1881, and the proportion of the deaths at each age to the total at all ages :—

DEATHS AT EACH AGE, 1881.

Ages.	Number of Deaths at each Age, 1881.			Percentage of Deaths at each Age.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years ...	2,368	2,038	4,406	33·71	38·61	35·82
5 years to 10 years ...	176	201	377	2·51	3·81	3·06
10 " 15 " ...	124	115	239	1·77	2·18	1·94
15 " 25 " ...	442	473	915	6·29	8·96	7·44
25 " 35 " ...	430	438	868	6·12	8·30	7·06
35 " 45 " ...	570	522	1,092	8·12	9·89	8·88
45 " 55 " ...	968	505	1,473	13·78	9·57	11·97
55 " 65 " ...	930	378	1,308	13·24	7·16	10·63
65 " 75 " ...	643	336	979	9·15	6·37	7·96
75 years and upwards ...	373	272	645	5·31	5·15	5·24
Total ...	7,024	5,278	12,302	100·00	100·00	100·00

Proportion of
deaths at
different
ages.

481. It will be noticed that a third of the males and nearly two-fifths of the females who died had not reached their fifth year, that a fourth of the males and a third of the females were between 5 and 45 years of age, that more than a fourth of the males but only a sixth of the females were between 45 and 65 years of age, and that a seventh of the males and a ninth of the females were over 65 years of age ; also that, as a rule, the females who died were younger than the males—about half the former being under and half over 20 years of age, whilst about half the latter were under and half over 35 years of age.

Proportion of
deaths at
each age to
population.

482. It was mentioned in a former paragraph* that death rates based upon the population of a country are apt to mislead, unless the ages of the persons of whom that population is composed are taken into account. The exact ages of the population of Victoria having been ascertained at the censuses of 1871 and 1881, an opportunity is afforded of securing an accurate result by comparing at each age the numbers of the population with the deaths. This has been done for males and females in quinquennial periods up to 75 years of age for the year 1881, and for the mean of the antecedent period of ten years, and the results are shown in the following table :—

* See paragraph 458 ante.

PROPORTION OF DEATHS AT EACH AGE TO POPULATION, 1871 AND 1881.

Ages.	Mean Population.		Deaths.		Deaths per 1,000 living at each age.	
	Ten years: 1871 to 1881*	Year 1881.	Mean of 10 years: 1871 to 1880.	Year 1881.	Mean of 10 years: 1871 to 1880.	Year 1881.
MALES.						
Under 5 years	58,391	57,846	2,764·3	2,368	47·34	40·94
5 to 10 "	54,196	54,888	330·6	176	6·10	3·21
10 to 15 "	48,671	54,765	160·7	124	3·30	2·26
15 to 20 "	37,855	50,523	167·7	187	4·43	3·70
20 to 25 "	32,298	41,449	173·9	255	5·38	6·15
25 to 30 "	28,179	27,482	189·3	222	6·72	8·08
30 to 35 "	27,945	22,633	237·5	208	8·50	9·19
35 to 40 "	30,919	23,434	322·0	233	10·42	9·95
40 to 45 "	30,412	25,948	425·2	337	13·98	12·99
45 to 50 "	25,223	28,596	436·3	430	17·30	15·04
50 to 55 "	21,505	26,863	436·0	538	20·28	20·03
55 to 60 "	12,353	16,299	350·0	468	28·33	28·71
60 to 65 "	9,190	12,313	323·1	462	35·16	37·51
65 to 70 "	4,605	6,305	249·9	343	54·28	54·40
70 to 75 "	2,845	3,764	200·6	300	70·50	79·71
75 and upwards	1,980	2,999	248·7	373	...	...
All ages ...	426,567	456,107	7,015·8	7,024	16·45	15·40
FEMALES.						
Under 5 years	57,055	56,359	2,407·1	2,038	42·19	36·16
5 to 10 "	53,708	54,496	322·3	201	6·00	3·69
10 to 15 "	48,248	54,222	159·1	115	3·30	2·12
15 to 20 "	39,741	51,908	170·6	210	4·29	4·05
20 to 25 "	34,371	43,868	185·4	263	5·39	6·00
25 to 30 "	26,194	27,025	202·4	219	7·73	8·10
30 to 35 "	23,027	21,954	216·0	219	9·38	9·98
35 to 40 "	22,598	21,571	249·4	247	11·04	11·45
40 to 45 "	19,595	21,329	246·9	275	12·60	12·89
45 to 50 "	15,403	19,684	213·8	270	13·88	13·72
50 to 55 "	11,912	15,507	177·1	235	14·87	15·15
55 to 60 "	6,951	9,256	145·0	185	20·86	19·99
60 to 65 "	5,394	7,116	153·8	193	28·51	27·13
65 to 70 "	2,846	3,864	118·0	174	41·46	45·03
70 to 75 "	1,923	2,562	111·4	162	57·93	63·23
75 and upwards	1,406	2,114	162·9	272	...	...
All ages ...	370,372	412,835	5,241·2	5,278	14·15	12·78

483. It has already been stated that 1881 was a year of exceptionally low mortality.† It is therefore not surprising to find that in the case of both males and females the death rate in it was lower than the mean death rate of the previous decenniad. This was specially marked at the younger ages, the mortality at under 5 being upwards of 6 per 1,000 and at from 5 to 10 nearly 3 per 1,000 less in 1881 than in the decennial period. A reduced mortality, however, did not occur at all

Death rate in 1881 and previous decenniad compared.

* The figures in this column being derived from the numbers returned at the censuses of 1871 and 1881, both of which were taken at the beginning of April, represent the mean of a decennial period commencing and ending three months later than that for which the deaths are given in the next column but one, viz., that ended with the 31st December 1880.

† See paragraph 459 ante.

the age-periods, the death rate in 1881 being higher than in the previous decenniad at from 20 to 35 and 55 to 75 in the case of males, and at from 20 to 45, 50 to 55, and 65 to 75 in the case of females.

484. The total mortality of males exceeded that of females by about $2\frac{1}{3}$ per 1,000 in the decennial period, and by nearly $2\frac{2}{3}$ per 1,000 in 1881. At some of the ages, however, the death rate of females was the greater. This was the case at from 20 to 40 in the decennial period, and at from 5 to 10, 15 to 20, and 25 to 40 in 1881. In the former, moreover, the death rate of females at from 10 to 15 was exactly equal to that of males at the same ages.

485. In the following table the death rates of males and females at quinquennial periods of age up to 25 years of age, and at decennial periods after that age, during the decenniad ended with 1880, are compared with similar results during the decenniad ended with 1870, the increase or decrease of the rate at each age being also shown:—

DEATH RATE AT EACH AGE IN THE LAST TWO DECENNIADS.

Ages.	Number of Deaths per 1,000 Males and Females living at different ages.					
	Males.			Females.		
	Mean of 10 years, 1861 to 1870.	Mean of 10 years, 1871 to 1880.	Increase + Decrease —	Mean of 10 years, 1861 to 1870.	Mean of 10 years, 1871 to 1880.	Increase + Decrease —
Under 5 years ...	55·08	47·34	— 7·74	49·66	42·19	— 7·47
5 to 10 „ ...	7·52	6·10	— 1·42	6·95	6·00	— ·95
10 to 15 „ ...	3·27	3·30	+ ·03	3·25	3·30	+ ·05
15 to 20 „ ...	4·22	4·43	+ ·21	3·65	4·29	+ ·64
20 to 25 „ ...	5·50	5·38	— ·12	5·89	5·39	— ·50
25 to 35 „ ...	7·85	7·60	— ·25	8·28	8·50	+ ·22
35 to 45 „ ...	12·09	12·18	+ ·09	11·12	11·76	+ ·64
45 to 55 „ ...	17·52	18·67	+ 1·15	13·20	14·31	+ 1·11
55 to 65 „ ...	29·71	31·24	+ 1·53	21·98	24·20	+ 2·22
65 to 75 „ ...	53·79	60·47	+ 6·68	43·10	48·10	+ 5·00
75 to 85 „ ...	111·71	114·80	+ 3·09	93·02	102·94	+ 9·92
All ages ...	16·68	16·45	— ·23	16·13	14·15	— 1·98

486. The whole mortality of both males and females, especially the latter, was less in proportion to population in the decenniad ended with 1880 than in that ended with 1870.

487. In the second decenniad, as compared with the first, a substantial decrease took place in the death rate of children under 5, and a less marked one in that of children from 5 to 10; also a slight decrease in the death rate of males at from 20 to 35, and of females at from 20 to 25, but at all the other ages—especially the higher ones—the death rate of both males and females was greater at the latter period than at the former.

488. As compared with their respective numbers in the population, the mortality of males was greater than that of females in the first decenniad at all the ages except from 20 to 35, and in the second decenniad at all the ages except from 10 to 15 (when the mortality of the two sexes was identical) and from 20 to 35.

Death rate of males greater than of females at most ages.

489. In the next table the death rates of males and females at different ages in Victoria, England and Wales, and France, are compared, the observations for Victoria extending over 20 years, those for England and Wales over 25 years, and those for France over 10 years :—

Death rate in Victoria, England, and France.

DEATH RATE IN VICTORIA, ENGLAND, AND FRANCE.

Ages.	Number of Deaths per 1,000 of the Population.					
	Males.			Females.		
	Victoria. Mean of 20 years.	England and Wales. Mean of 25 years.	France. Mean of 10 years.	Victoria. Mean of 20 years.	England and Wales. Mean of 25 years.	France. Mean of 10 years.
Under 5 years ...	51.21	72.8	84.55	45.92	63.1	75.45
5 to 10 " ...	6.81	8.5	10.49	6.47	8.2	11.04
10 to 15 " ...	3.28	4.7	5.36	3.27	4.8	6.41
15 to 20 " ...	4.32	6.5	10.34	3.97	7.0	8.41
20 to 25 " ...	5.44	8.8		5.64	8.7	
25 to 35 " ...	7.72	9.9	10.02	8.39	9.9	9.69
35 to 45 " ...	12.13	13.3	10.96	11.44	12.1	11.03
45 to 55 " ...	18.09	18.6	14.76	13.75	15.6	14.88
55 to 65 " ...	30.48	31.0	29.19	23.09	28.2	27.27
65 to 75 " ...	57.13	67.7	60.69	45.60	57.2	63.49
75 to 85 " ...	113.25	146.6	160.22	97.98	133.9	153.76
All ages ...	16.56	23.5	23.80	15.14	21.4	23.19

490. It will be observed that in Victoria the total mortality of males is less by 7 per 1,000 than that of England, and by 7 per 1,000 than that of France ; and the total mortality of females is less by 6 per 1,000 than that of England, and by 8 per 1,000 than that of France ; also that at none of the age-periods is the mortality of either males or females as high in Victoria as in England, but at from 35 to 65 it is higher than in France in the case of the males, and at from 35 to 45 it is higher in the case of the females.

Death rate in Victoria less than in England and France.

491. It is very commonly believed that the conditions of life in Victoria are more fatal to children than those conditions in older countries, but the figures in the table prove the fallacy of this opinion so far as England and France are concerned—the low mortality in Victoria, as compared with that obtaining in either of those countries, being more marked at the age-periods under 10 years than at any other time of life.

Death rate of children less in Victoria than in England or France.

Death rate of males and females in three countries compared.

492. According to the table, the death rate of females exceeds that of males at from 20 to 35 in Victoria, at from 10 to 20 in England and Wales, and at from 5 to 15, from 35 to 55, and from 65 to 75 in France; moreover, in England and Wales, at from 25 to 35 the death rate of males and females is equal. At all other periods of life the death rate of males exceeds that of females in the countries named.

Infantile mortality, 1881.

493. The death rate of infants in 1881 was lower than in the four preceding years, and was also below the average. The total number who died under 1 year of age was 3,119, and as the births numbered 27,145, it follows that 1 infant died to every 9 births, or 11·49 infants to every 100 births. In the fifteen years 1866 to 1880, the proportion of infants dying before completing their first year was 12·40 to every 100 births.*

Mortality of male and female infants.

494. It has been already stated that more boys are born than girls, but the balance of the sexes is to a certain extent maintained by more male than female infants dying. This is shown in the following table, which contains a statement of the number of births of boys and girls, the number of deaths of each before completing their first year, and the proportion of the deaths of infants of either sex to the number of births of infants of the same sex:—

MORTALITY OF MALE AND FEMALE INFANTS, 1871 TO 1881.

Year.	Births.		Deaths at under 1 Year of Age.			
			Total Number.		Number per 100 Births.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1871 ...	14,000	13,382	1,710	1,404	12·21	10·49
1872 ...	13,831	13,530	1,801	1,533	13·02	11·33
1873 ...	14,234	13,866	1,679	1,502	11·80	10·83
1874 ...	13,659	13,141	1,839	1,502	13·46	11·43
1875 ...	13,683	13,037	2,071	1,740	15·14	13·35
1876 ...	13,759	13,010	1,637	1,343	11·90	10·32
1877 ...	13,272	12,738	1,838	1,461	13·85	11·47
1878 ...	13,752	12,829	1,763	1,499	12·82	11·68
1879 ...	13,727	13,112	1,817	1,402	13·24	10·69
1880 ...	13,358	12,790	1,669	1,436	12·49	11·23
1881 ...	13,903	13,242	1,696	1,423	12·20	10·75
Sums and Means }	151,178	144,677	19,520	16,245	12·91	11·23

Mortality of male greater than of female infants.

495. According to a previous paragraph † the births of male infants in a series of years were in the proportion of 104 to 100 female infants, and the numbers in this table point to a proportion of 120 deaths of the former to 100 of the latter. It will be noticed that in every one of the

* See table following paragraph 502 post.

† See paragraph 441 ante.

years deaths of male infants very much exceeded those of female infants; and as the numbers living were about equal, the excess, if any, being in favor of male infants, the greater tendency of boys than of girls to die before completing one year of life may be considered to be invariable

496. In proportion to every 1,000 born, the number of male infants dying varied from 118 in 1873 to 151 in 1875, and that of female infants dying from 103 in 1876 to 134 in 1875, the number dying per 1,000 births during the 11 years being 129 of the former and 112 of the latter. The high mortality of infants in 1875 was caused by an epidemic of measles which prevailed in that year. The next year was one in which the general mortality was much increased by an epidemic of scarlatina, but infants under 1 year appear not to have been at all affected thereby, as their mortality in 1876 was remarkably low.

Proportion of infants dying to births.

497. In classifying the deaths of infants, those are distinguished which occur at under 1 month of age, at from 1 to 3 months, at from 3 to 6 months, and at from 6 to 12 months. The numbers of these during the 11 years ended with 1881 are shown in the following table, together with the proportion of deaths at each of those periods of age and the number at each such period to every 100 births:—

Deaths of infants at different ages.

AGE AT DEATH OF MALE AND FEMALE INFANTS, 1871 TO 1881.

Ages.		Deaths at under 1 Year of Age.				
		Ten Years 1871 to 1880.	Year 1881.	Total in 11 Years, 1871 to 1881.		
				Number.	Percentage at each Age.	Number per 100 Births.
Boys.						
Under 1 month	...	6,100	582	6,682	34·23	4·42
1 to 3 months	...	3,057	321	3,378	17·30	2·23
3 to 6 „	...	3,408	384	3,792	19·43	2·51
6 to 12 „	...	5,259	409	5,668	29·04	3·75
Total	...	17,824	1,696	19,520	100·00	12·91
GIRLS.						
Under 1 month	...	4,539	466	5,005	30·81	3·46
1 to 3 months	...	2,529	271	2,800	17·23	1·94
3 to 6 „	...	2,970	301	3,271	20·14	2·26
6 to 12 „	...	4,784	385	5,169	31·82	3·57
Total	...	14,822	1,423	16,245	100·00	11·23

498. During the period of 11 years the deaths of male infants exceeded those of female infants at each of the periods of age. This was more especially the case in the first month of life, when the excess of

More deaths of male than female infants at all ages.

the former was fully a third; in the next two months this excess was reduced to about a fifth, in the next three months to about a seventh, and in the next six months to something less than a tenth.

Periods at which infants die.

499. Over a third of the male and nearly a third of the female infants who died did so in the first month after birth; about a sixth of both males and females died in the next two months; about a fifth of both males and females died in the next three months; between a third and a fourth of the males and nearly a third of the females died in the next six months.

Deaths in first month and second six months of life.

500. More male infants died in the first month of life than in the whole of the second six months, but the female infants who died in the second six months slightly exceeded those who died in the first month.

Probable mortality of infants.

501. As a practical result of these calculations it may be mentioned that of every 20,000 newly-born boys and girls in equal numbers, 442 of the former and 346 of the latter may be expected to die before they are a month old; 223 more boys and 194 more girls may be expected to die between 1 month and 3 months of age; 251 more boys and 226 more girls between 3 and 6 months; 375 more boys and 357 more girls between 6 and 12 months. At the end of a year it is probable that 1,291 of the boys and 1,123 of the girls will have died, and 8,709 of the former and 8,877 of the latter will be still living.

Infantile mortality in Australasian colonies.

502. It has been pointed out in previous issues of this work 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 two years of which the records are at hand, was below the average, but was still above that in any of the other colonies. The infantile death rate, in the last of those years, calculated in a similar manner, was also below the average in Victoria, Queensland, and New Zealand, but was above it in New South Wales and Tasmania, 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 fifteen years ended with 1880. All the calculations were made in the office of the Government Statist, Melbourne:—

* 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.			NEW SOUTH WALES.			QUEENSLAND.			
1866	25,010	3,838	15.35	16,950	1,939	11.44	4,127	690	16.72
1867	25,608	3,534	13.80	18,317	2,269	12.39	4,476	578	12.91
1868	27,243	3,054	11.21	18,485	1,791	9.69	4,460	552	12.38
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
1880	26,148	3,105	11.86	28,162	3,200	11.36	8,196	865	10.55
Sums and means	399,762	49,559	12.40	326,758	35,386	10.83	89,436	11,538	12.90

Year.	SOUTH AUSTRALIA.			TASMANIA.			NEW ZEALAND.		
	Births.	Total Number.	Number to 100 Births.	Births.	Total Number.	Number to 100 Births.	Births.	Total Number.	Number to 100 Births.
1866	6,782	1,178	17.37	2,805	264	9.41	8,466	849	10.03
1867	7,041	1,254	17.81	2,971	267	8.98	8,918	873	9.79
1868	7,247	1,084	14.96	2,990	351	11.73	9,391	899	9.57
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
1880	10,262	1,393	13.57	3,739	420	11.23	19,341	1,805	9.33
Sums and means	117,775	17,732	15.06	47,157	4,861	10.31	194,866	19,345	9.93

503. 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 second and third 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 respect to infantile mortality.

ORDER OF COLONIES IN REFERENCE TO INFANTILE MORTALITY.

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

504. 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.

505. 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 (Greater Melbourne) during the nine years ended with 1881 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 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 nine years named:—

INFANTILE MORTALITY IN AND OUTSIDE OF GREATER MELBOURNE,
1873 TO 1881.

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.
	Greater Melbourne.			Victoria, outside Greater Melbourne.		
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
1881 ...	9,237	1,514	16·39	17,908	1,605	8·96
Sums and means }	76,024	12,766	16·79	165,046	16,551	10·03

506. As compared with the births, the infantile mortality of Greater Melbourne is, on the average, higher 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 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

507. In the Lying-in Hospital, Melbourne, 560 children were born alive during 1881, and of these, 54, or over 9½ per cent., died before leaving the institution. In 1880, 5½ per cent.; in 1879, 8 per cent.; in 1878, 6½ 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 infants in Lying-in Hospital.

508. The deaths of Chinese recorded in 1881 amounted to 112, one being a female, and those of Aborigines to 20. The former furnishes a proportion of 9·24 and the latter of 25·64 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 14·16.

Deaths of Chinese and Aborigines.

509. The low mortality of the Chinese is accounted for by the fact that the Chinese population in Victoria consists almost entirely of persons at the middle or strongest period of life. In 1881 the youngest Chinese who died was between 20 and 25 years of age, the oldest was said to be between 75 and 80. Of the Aborigines who died two were under 5 and one was stated to have attained the age of 80.

Ages at death of Chinese and Aborigines.

510. During the 11 years ended with 1881, deaths of male children under 5 years of age averaged 2,728, and deaths of female children under that age averaged 2,374 annually—the former being in the proportion of about 39 per cent. and the latter of about 46 per cent. to the total number of deaths at all ages. The following table shows the number of such

Deaths of children under 5.

* On the 3rd April 1881 the Chinese numbered 12,128; Aborigines, 780.

deaths at each year of age and their proportion to the deaths at all ages in each of the 11 years :—

DEATHS OF CHILDREN UNDER 5 YEARS OF AGE, 1871 TO 1881.

Years.	Years of Age at Death (last birthday).					Total Deaths under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion per 100 Deaths at All Ages.
MALES.							
1871 ...	1,710	463	135	79	77	2,464	42·15
1872 ...	1,801	486	155	120	102	2,664	42·23
1873 ...	1,679	456	186	146	97	2,564	39·06
1874 ...	1,839	504	184	159	128	2,814	40·43
1875 ...	2,071	917	383	234	217	3,822	44·78
1876 ...	1,637	511	312	261	210	2,931	38·04
1877 ...	1,838	512	216	123	108	2,797	38·08
1878 ...	1,763	465	176	140	87	2,631	36·65
1879 ...	1,817	353	159	117	94	2,540	36·12
1880 ...	1,669	414	156	103	74	2,416	36·55
1881 ...	1,696	357	141	102	72	2,368	33·71
Sums ...	19,520	5,438	2,203	1,584	1,266	30,011	...
Means ...	1,775	494	200	144	115	2,728	39·40
FEMALES.							
1871 ...	1,404	413	136	94	68	2,115	51·93
1872 ...	1,533	473	155	106	94	2,361	52·20
1873 ...	1,502	427	160	132	119	2,340	47·41
1874 ...	1,502	472	171	135	99	2,379	45·58
1875 ...	1,740	864	408	256	169	3,437	51·22
1876 ...	1,343	469	275	217	177	2,481	42·46
1877 ...	1,461	484	171	148	102	2,366	43·57
1878 ...	1,499	481	204	108	95	2,387	43·22
1879 ...	1,402	353	156	100	89	2,100	41·28
1880 ...	1,436	386	143	89	51	2,105	41·75
1881 ...	1,423	331	124	95	65	2,038	38·61
Sums ...	16,245	5,153	2,103	1,480	1,128	26,109	...
Means ...	1,477	468	191	135	103	2,374	45·93

More boys die than girls.

511. During the period to which the table refers, deaths of boys under 5 exceeded those of girls under 5 by about 4,000, or 15 per cent. The former in all the years bore a smaller proportion to the total deaths of males than the latter did to the total deaths of females, a circumstance no doubt mainly due to the small proportion of old people in the female population as compared with that in the male. In none of the years did the mortality of boys under 5 exceed 45 per cent., but in three of them that of girls under 5 exceeded 50 per cent. of the whole mortality of their respective sexes. The epidemic period, the centre of which was 1875, is easily recognized by the increased mortality which occurred thereat.

Number of children under 5 and their deaths,

512. The average number of boys and girls at each year of age under 5, living during the period of 11 years embraced in the last table,

are compared in the next table with the average number of deaths of boys and girls at those ages which occurred annually during the same period :—

NUMBER AND DEATHS OF CHILDREN UNDER 5 YEARS OF AGE, 1871 TO 1881.

Age last Birthday.	Males.				Females.			
	Mean Number of Children living at each age, 1871 & 1881.	Mean Annual Number of Deaths at each age, 1871 to 1881.	Per-centage of Deaths at each age.	Number of Deaths per 1,000 Children living.	Mean Number of Children living at each age, 1871 & 1881.	Mean Annual Number of Deaths at each age, 1871 to 1881.	Per-centage of Deaths at each age.	Number of Deaths per 1,000 Children living.
0 ...	12,152	1,775	65·07	146·07*	11,809	1,477	62·22	125·07*
1 ...	11,228	494	18·11	43·99	11,004	468	19·71	42·53
2 ...	11,943	200	7·33	16·75	11,635	191	8·04	16·42
3 ...	11,807	144	5·28	12·20	11,469	135	5·69	11·77
4 ...	11,261	115	4·21	10·21	11,138	103	4·34	9·25
Total ...	58,391	2,728	100·00	46·72	57,055	2,374	100·00	41·61

513. During the period to which the table refers, the mean number of children of both sexes under 5 living was 115,446, and the mean number of deaths of such children was 5,102, whence it results that 44 in every 1,000 children under 5, or about 1 in 23, died annually. In every 1,000 boys the proportion who died annually was 47, or 1 in 21 ; in every 1,000 girls it was 42, or 1 in 24.

Proportion of children dying annually.

514. Of every 1,000 boys under 1 year of age, 146, and of every 1,000 girls under 1 year of age, 125, died annually. These are larger proportions than those quoted in the table showing the comparison of deaths of children under 1 with the births, the proportions in which were 129 deaths of male infants and 112 deaths of female infants to every 1,000 births of infants of those sexes respectively.

Proportion of boys and girls dying

515. In proportion to their respective numbers in the population, more boys than girls died at every year of age, the difference per 1,000 living being as much as 21 at under 1, but only about 1½ at from 1 to 2, and less than 1 at subsequent ages.

More boys died than girls.

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

Boys and girls dying under 1.

517. Of the whole number of children who died before they attained the age of 5, nearly two-thirds, viz., 65 per cent. of the boys and 62

Proportion of deaths of children at each age.

* These results being based upon infants living instead of births, naturally differ from those in total line of last column of table following paragraph 497 ante.

per cent. of the girls, were under 1 year of age ; less than a fifth of the boys and about a fifth of the girls were between 1 and 2 ; about a fourteenth of the boys and about a twelfth of the girls were between 2 and 3 ; 1 in 19 of the boys and 1 in 18 of the girls were between 3 and 4 ; 1 in 24 of the boys and 1 in 23 of the girls were between 4 and 5.

Probable mortality of children under 5.

518. It results from actuarial calculations based upon the figures in this and a previous table* that of every 20,000 boys and girls in equal numbers born in Victoria, 1,291 boys and 1,123 girls may be expected to die before they complete a year of life, 374 more boys and 369 more girls before they complete 2 years, 138 more boys and 139 more girls before they complete 3 years, 99 more boys and 98 more girls before they complete 4 years, and 83 more boys and 76 more girls before they complete 5 years. At the end of that period it is probable that 1,985 of the boys and 1,805 of the girls will have died and 8,015 of the boys and 8,195 of the girls will be still living.

Deaths of octogenarians 1881.

519. In 1881, deaths of 200 males and 158 females who had passed their eightieth year were recorded, which numbers are above the average, even if allowance be made for the increase since 1871 in the number of octogenarians living. Sixty-three of the males and 66 of the females had passed their eighty-fifth year, 26 of the males and 25 of the females had passed their ninetieth year, and 1 of the males and 3 of the females had passed their hundredth year.

Deaths of octogenarians 1870 to 1880.

520. In the 10 years ended with 1880, 1,091 males and 793 females died in Victoria at the age of 80 or upwards. The deaths of males and females at all ages during the same period numbered 70,158 and 52,412 respectively, therefore 1 male in every 64, and 1 female in every 66, lived to be upwards of 80 years of age. In the 8 years ended with 1880, that age was attained by 956 males, or 1 in 61, and by 695 females, or 1 in 63. In the same 8 years, 370 of the males, or 1 in 157, and 294 of the females, or 1 in 149, lived to be 85 years of age or upwards ; 105 of the males, or 1 in 552, and 94 of the females, or 1 in 466, lived to be 90 years of age or upwards ; 46 of the males, or 1 in 1,261, and 29 of the females, or 1 in 1,511, lived to be 95 years of age or upwards ; and 10 of the males, or 1 in 5,800, and 10 of the females, or 1 in 4,382, lived to be upwards of 100 years of age.

Ages of persons over 80 who died.

521. The precise ages of the persons of 80 years and upwards who died in 1871 and 1872 were not noted at the time the death returns were tabulated, and cannot now be ascertained without going back to the registers, but the following table gives a statement of the ages of those who died in the subsequent years of the decenniad and in the year 1881 :—

* See table following paragraph 497 *ante*, from which probable deaths at under 1 year of age have been taken. Probability of deaths at other ages under 5 has been calculated from the numbers in the last table.

DEATHS OF OCTOGENARIANS, 1871 TO 1881.

Years of Age.	Ten years ended with 1880.		Year 1881.		Total 1871 to 1881.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
80	211	121	42	23	253	144	397
81	100	74	35	24	135	98	233
82	102	79	17	18	119	97	216
83	80	59	21	16	101	75	176
84	93	68	22	11	115	79	194
85	78	64	13	6	91	70	161
86	52	47	11	14	63	61	124
87	55	35	10	11	65	46	111
88	47	34	1	4	48	38	86
89	33	20	2	6	35	26	61
90	22	30	4	7	26	37	63
91	7	10	3	6	10	16	26
92	12	14	6	4	18	18	36
93	8	5	1	3	9	8	17
94	10	6	4	2	14	8	22
95	13	9	3	...	16	9	25
96	9	4	2	...	11	4	15
97	3	4	...	...	3	4	7
98	5	2	...	...	5	2	7
99	6	...	2	...	8	...	8
100	2	4	...	1	2	5	7
101	1	2	...	...	1	2	3
102	3	...	...	...	3	...	3
103	1	1	...	1	1	2	3
104	2	1	...	...	2	1	3
105	1	...	1	...	2	...	2
106	...	1	...	...	...	1	1
110	...	...	...	1	...	1	1
114	...	1	...	...	...	1	1
Unspecified*	135	98	...	...	135	98	233
Total	1,091	793	200	158	1,291	951	2,242

522. The average age at death in 1881 was 30·21 years, or 30 years and 2½ months. For males the average age was 32·63 years, or 32 years and 7½ months, and for females, 25·98 years, or nearly 26 years. 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
" 1881	...	...	...	32·63	...	25·98

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

Classification
of causes of
death.

523. 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.

Nosological
Index.

524. 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.

Victorian
index used
throughout
Australasia.

525. 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.*

Causes of
death classi-
fied.

526. 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 1881, also the total number who died from each cause during the twenty-seven years and a half ended with 1880 :—

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT.

(27½ Years : 1853 to 1880; and Year 1881.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			27½ Years : 1853-1880	Year 1881.		
				Total. †	Chinese.	Abori- gines.
		All causes	285,902	12,302	112	20
		Specified causes	284,227	12,274	111	20
		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	86,062	2,437	5	1
II.	...	CONSTITUTIONAL DISEASES : — Cachectici (καχεξία, bad habit of body). Sporadic diseases; affecting several organs in which new morbid products are often deposited; sometimes hereditary	38,118	1,952	39	4

* 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.

(27½ Years: 1853 to 1880; and Year 1881.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			27½ Years: 1853-1880	Year 1881.		
			Total. *	Chinese.	Aborigines.	
CLASSES—continued.						
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	96,617	5,286	38	8
IV.	...	DEVELOPMENTAL DISEASES:— Metamorphici (μεταμόρφωσις, change of form). Special diseases, the incidental result of the formative, reproductive, and nutritive processes	40,163	1,750	16	7
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	23,267	849	13	...
ORDERS.						
I.	1	<i>Miasmatic diseases:—</i> Miasmatici (μίασμα, stain; defilement)	78,966	2,096	3	1
	2	<i>Enthetic diseases:—</i> Enthetici (ἐνθετος, put in; implanted)	765	41	...	...
	3	<i>Dietic diseases:—</i> Dietici (δίαιτα, way of life; diet)	4,722	222	2	...
	4	<i>Parasitic diseases:—</i> Parasitici (παράσιτος, parasite)	1,609	78	...	...
II.	1	<i>Diathetic diseases:—</i> Diathetici (διάθεσις, condition; diathesis)	7,944	466	12	...
	2	<i>Tubercular diseases:—</i> Phthisisici (φθίσις, wasting away)	30,174	1,486	27	...
III.	1	<i>Brain diseases:—</i> Cephalici (κεφαλή, head) ...	30,743	1,409	5	...
	2	<i>Heart diseases:—</i> Cardiaci (καρδιά, heart) ...	13,186	842	6	...
	3	<i>Lung diseases:—</i> Pneumonici (πνεύμων, lung)	27,392	1,639	19	7
	4	<i>Bowel diseases:—</i> Enterici (έντερον, intestine)	20,320	1,033	7	...
	5	<i>Kidney diseases:—</i> Nephritici (νεφρός, kidney)	3,215	286	...	1
	6	<i>Gennetic diseases:—</i> Aidoici (αἰδοῖα, pudenda)	491	12	...	...
	7	<i>Bone and muscle diseases:—</i> Myostici (μῦς, muscle; ὀστέον, bone)	676	26	1	...
	8	<i>Skin diseases:—</i> Chrotici (χρῶς, skin) ...	594	39	...	...
IV.	1	<i>Developmental diseases of children:—</i> Paidiaci (παιδιά, youth)	13,438	436	...	...
	2	<i>Developmental diseases of women:—</i> Gyniaci (γυνή, woman)	2,824	161	1	...
	3	<i>Developmental diseases of old people:—</i> Geratici (γῆρας, old age)	4,249	416	5	5

* The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(27½ Years: 1853 to 1880; and Year 1881.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			27½ Years: 1853-1880	Year 1881.		
				Total. *	Chinese.	Aborigines.
ORDERS—<i>continued.</i>						
IV.	4	<i>Diseases of nutrition</i> :—Atrophici (ἀτροφία, atrophy)	19,652	737	10	2
V.	1	<i>Accident</i> :—Tychici (τύχη, chance) ...	20,918	730	7	...
	2	<i>Battle</i> :—Polemici (πόλεμος, battle; fight) ...	...	...	...	...
	3	<i>Homicide</i> :—Androphonici (άνήρ, man; φονεύω, I kill)	493	16	...	...
	4	<i>Suicide</i> :—Autophonici (αὐτός, self; φονεύω, I kill)	1,783	102	6	...
	5	<i>Execution</i> :—Demiotici (δημιώτης, executioner)	73	1	...	...
DISEASES, ETC.						
I.	1	Small-pox	21	...	...	...
		Chicken-pox	40	2	...	...
		Measles	4,099	62	...	...
		Scarlatina	8,710	86	...	...
		Diphtheria	8,032	114	...	...
		Quinsy	611	6	...	...
		Croup	4,135	125	...	...
		Whooping-cough	4,477	167	...	...
		Typhoid fever, &c.	11,343	351	...	...
		Erysipelas	1,065	87	...	...
		Metria	711	78	...	...
		Carbuncle, boil, &c.	71	9	...	...
		Influenza, coryza, catarrh	893	14	...	...
		Dysentery	12,508	115	3	1
		Diarrhœa	18,318	671	...	...
		Cholera	1,290	61	...	...
		Ague	97	3	...	...
	Remittent fever	695	9	...	...
	Rheumatism	1,382	103	...	...
	Miasmatic diseases not classed	468	33	...	...
	2	Syphilis	594	36	...	...
		Gonorrhœa, stricture of the urethra	169	5	...	...
		Glanders	2	...	...	...
3	Privation	433	15	2	...	
	Want of breast-milk	2,160	130	...	...
	Purpura and scurvy	285	11	...	...
	Alcoholism	1,815	65	...	...
	Other dietic diseases	29	†1	...	...
4	Thrush	984	30	...	...
	Worms, &c.	61	...	...	...
	Hydatids	544	48	...	...
	Other parasitic diseases	20	...	...	...
II.	1	Gout	179	15	...	...
		Dropsy... ..	2,085	‡ 61	...	...
		Cancer... ..	4,616	351	12	...

* The Chinese and Aborigines are included in this column.

† This was a case of goitre.

‡ Including 1 case of beri-beri.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(27½ Years: 1853 to 1880; and Year 1881.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			27½ Years: 1853-1880	Total. *	Chinese.	Aborigines.
		DISEASES, ETC.—<i>continued.</i>				
		Tumor	428	28	...	...
		Polypus	11	...	...	...
		Noma	66	1	...	...
		Mortification	390	10	...	...
		Other diathetic diseases	169	...	...	...
	2	Scrofula	1,034	34	2	...
		Tabes mesenterica	2,262	71	...	...
		Phthisis	21,868	1,199	25	4
		Hydrocephalus	4,242	159	...	...
		Other tubercular diseases	768	23	...	...
III.	1	Cephalitis	4,708	253	1	...
		Apoplexy	5,193	304	1	...
		Paralysis	2,610	186	...	...
		Insanity †	255	7	...	...
		Chorea	45	3	...	...
		Epilepsy	1,162	49	...	...
		Convulsions	9,859	284	...	...
		Other diseases of the nervous system	6,911	323	3	...
	2	Pericarditis	747	39	...	...
		Aneurism	1,547	67	2	...
		Other diseases of the circulatory system	10,892	736	4	...
	3	Laryngitis	881	31	...	1
		Bronchitis	8,736	553	2	2
		Pleurisy	1,546	99	4	...
		Pneumonia	11,373	648	6	4
		Congestion of the lungs, pulmonary apoplexy	2,621	201	1	...
		Asthma	715	54	6	...
		Other diseases of the respiratory system	1,520	53	...	...
	4	Gastritis	2,706	146	...	...
		Enteritis	5,116	188	3	...
		Peritonitis	1,606	83	1	...
		Ascites	436	8	...	...
		Ulceration of intestines	399	21	...	...
		Hernia	405	29	...	...
		Ileus	822	37	...	...
		Intussusception	179	18	...	...
		Stricture of intestines	78	10	...	...
		Fistula	41	...	...	...
		Stomach diseases undefined	1,342	55	1	...
		Pancreas disease	13	3	...	...
		Hepatitis	2,247	100	...	...
		Jaundice, gallstone	900	50	...	...
		Liver disease undefined	3,935	282	2	...
		Spleen disease	95	3	...	...
	5	Nephritis	377	28	...	1
		Ischuria	65	5	...	...
		Nephria	1,000	140	...	...
		Diabetes	234	12	...	...

* 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.*
(27½ Years : 1853 to 1880 ; and Year 1881.)

Class.	Order.	Causes of Death.	Number of Deaths.						
			27½ Years : 1853-1880	Total *	Chinese.	Aborigines.			
		<i>DISEASES, ETC.—continued.</i>							
III.	5	Stone, gravel	97	13	...	...	
		Cystitis	325	27	...	...	
		Other diseases of the urinary organs	1,117	61	...	...	
	6	Ovarian dropsy	106	6	...	...	
		Other diseases of the generative organs	385	6	...	...	
	7	Arthritis	137	7	...	...	
		Ostitis, periostitis	40	2	...	...	
		Other diseases of the locomotive system	499	17	1	...			
	8	Phlegmon, whitlow	51	1	...	...	
		Ulcer	185	14	...	...	
		Other diseases of the skin	358	24	...	...	
IV.	1	Premature birth... ..	5,337	325	...	...	
		Cyanosis	357	19	...	...	
		Spina bifida	231	12	...	...	
		Other malformations	685	20	...	...	
		Teething	6,817	60	...	...	
		Other developmental diseases of children	11	...	...	...
	2	Paramenia	91	6	1	...			
		Childbirth	2,732	155	...	...	
		Other developmental diseases of adults	1	...	...	...
	3	Old age	4,249	416	5	5			
	4	Atrophy and debility	19,652	737	10	2			
V.	1	Fractures, contusions, &c.	7,213	342	5	...			
		Wounds	520	31	...	...	
		Burns and scalds	2,200	82	1	...			
		Sunstroke	412	18	...	...	
		Struck by lightning	38	7	...	...	
		Poison	378	17	...	...	
		Snake or insect bite	72	5	...	...	
		Drowning	4,747	176	1	...			
		Suffocation	1,555	46	...	...	
		Other or unspecified accidents	3,783	6	...	...	
	3	Murder, manslaughter, and justifiable homicide	493	16	...	...	
	4	Wounds	528	28	...	...	
		Poison	331	18	...	...	
		Drowning	346	24	...	...	
		Hanging	510	28	6	...			
		Suicide by other means	68	4	...	...	
	5	Judicial hanging	73	1	...	...	
...	...	<i>Causes not specified</i>	1,675	28	1	...			

527. The next table shows the same causes of death, arranged in the order of their fatality, during 1881, with the numbers who died from each cause in that year, and during the twenty-seven years and a half ended with 1880, also the order of fatality of the different causes during that period :—

* The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN ORDER OF FATALITY.

(27½ Years : 1853 to 1880 ; and Year 1881.)

Order of Fatality.		Causes of Death in Order of Fatality, 1881.	Number of Deaths.	
27½ Years : 1853-1880.	Year 1881.		27½ Years : 1853-1880.	Year 1881.
1	1	Phthisis	21,868	1,199
3	2	Atrophy and debility	19,652	737
8	3	Diseases of the organs of circulation not classed	10,892	736
2	4	Accidents	20,918	730
4	5	Diarrhœa	18,318	671
6	6	Pneumonia	11,373	648
10	7	Bronchitis	8,736	553
21	8	Old age	4,249	416
19	9	Cancer	4,616	351
7		Typhoid fever, &c.	11,343	351
15	10	Premature birth	5,337	325
13	11	Diseases of the nervous system not classed	6,911	323
16	12	Apoplexy	5,193	304
9	13	Convulsions	9,859	284
25	14	Diseases of the liver not classed	3,935	282
18	15	Cephalitis	4,708	253
26	16	Childbirth and metria	3,443	233
28	17	Congestion of lungs, pulmonary apoplexy	2,621	201
17	18	Enteritis	5,116	188
29	19	Paralysis	2,610	186
20	20	Whooping-cough	4,477	167
22	21	Hydrocephalus	4,242	159
27	22	Gastritis	2,706	146
48	23	Nephria	1,000	140
32	24	Want of breast-milk	2,160	130
23	25	Croup	4,135	125
5	26	Dysentery	12,508	115
12	27	Diphtheria	8,032	114
40	28	Rheumatism	1,382	103
35	29	Suicide	1,783	102
31	30	Hepatitis	2,247	100
38	31	Pleurisy	1,546	99
46	32	Erysipelas	1,065	87
11	33	Scarlatina	8,710	86
36	34	Peritonitis	1,606	83
30	35	Tabes mesenterica	2,262	71
37	36	Aneurism	1,547	67
34	37	Alcoholism	1,815	65
24	38	Measles	4,099	62
45	39	Diseases of the urinary organs not classed	1,117	61
42		Cholera	1,290	61
33		Dropsy	2,085	61
14	40	Teething	6,817	60
41	41	Diseases of the stomach not classed	1,342	55
57	42	Asthma	715	54
39	43	Diseases of the respiratory system not classed	1,520	53
43	44	Malformations	1,273	51
50	45	Jaundice, gall-stone	900	50
44	46	Epilepsy	1,162	49
60	47	Hydatids	544	48
55	48	Venereal diseases	763	41
56	49	Pericarditis	747	39
53	50	Ileus	822	37
47	51	Scrofula	1,034	34
63	52	Miasmatic diseases not classed	468	33

CAUSES OF DEATH IN ORDER OF FATALITY—*continued.*
(27½ Years: 1853 to 1880; and Year 1881.)

Order of Fatality.		Causes of Death in Order of Fatality, 1881.	Number of Deaths.	
27½ Years: 1853-1880.	Year 1881.		27½ Years: 1853-1880.	Year 1881.
52	53	Laryngitis	881	31
49	54	Thrush	984	30
67	55	Hernia	405	29
71	56	Nephritis	377	28
66		Tumor	428	28
73	57	Cystitis	325	27
72	58	Skin diseases not classed	358	24
54	59	Tubercular diseases not classed	768	23
68	60	Ulceration of intestines	399	21
78	61	Intussusception	179	18
61	62	Diseases of locomotive system not classed	499	17
62	63	Murder, manslaughter, and justifiable homicide	493	16
78	64	Gout	179	15
65		Privation	433	15
77	65	Ulcer	185	14
51		Influenza, coryza, catarrh	893	14
82	66	Stone, gravel	97	13
76	67	Diabetes	234	12
74	68	Purpura and scurvy	285	11
85	69	Stricture of the intestines	78	10
69		Mortification	390	10
87	70	Carbuncle, boil	71	9
58		Remittent fever	695	9
64	71	Ascites	436	8
80	72	Arthritis	137	7
75		Insanity	255	7
84	73	Paramenia	91	6
81		Ovarian dropsy	106	6
59		Quinsy	611	6
70	74	Diseases of the organs of generation not classed	385	6
89		Ischuria	65	5
92	75	Chorea	45	3
98		Pancreas disease	13	3
82		Ague	97	3
83	76	Spleen disease	95	3
94		Chicken-pox, &c.	40	2
94	77	Ostitis, periostitis	40	2
86		Execution	73	1
88	77	Noma	66	1
91		Phlegmon, whitlow	51	1
95	...	Dietic diseases not classed	29	1
79		Diathetic diseases not classed	169	...
90	...	Worms, &c.	61	...
93	...	Fistula	41	...
96	...	Small-pox	21	...
97	...	Parasitic diseases not classed	20	...
99	...	Polypus	11	...
...		Developmental diseases of children not classed	11	...
100	...	Glanders	2	...
101	...	Developmental diseases of women not classed ...	1	...
Deaths from specified causes			284,227	12,274
Deaths from unspecified causes			1,675	28
Deaths from all causes			285,902	12,302

528. 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 1881 and to the twenty-seven years and a half ended with 1880, and the results for England and Wales to the twenty-five years ended with 1874:—

Death rate from various causes in Victoria and England.

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 1881.	Average of 27½ Years: 1853 to 1880.	Average of 25 Years: 1850 to 1874.
		All causes	1,415·74	1,665·42	2,228·28
		Specified causes	1,142·53	1,655·66	2,205·66
		CLASSES.			
I.	...	Zymotic diseases	280·46	501·33	503·87
II.	...	Constitutional diseases	224·64	222·04	420·54
III.	...	Local diseases	608·32	562·81	849·97
IV.	...	Developmental diseases	201·39	233·95	355·15
V.	...	Violent deaths	97·71	135·53	76·13
		ORDERS AND DISEASES.*			
I.	1	Miasmatic diseases	241·21	459·99	478·94
		Measles	7·14	23·88	42·82
		Scarlatina	9·90	50·74	} 103·80
		Diphtheria	13·12	46·79	
		Croup	14·39	24·09	24·06
		Whooping-cough	19·22	26·08	51·46
		Typhoid fever, &c.	40·39	66·07	50·39†
		Dysentery	13·23	72·86	6·72
		Diarrhœa	77·22	106·71	89·06
		Metria (<i>see also</i> Childbirth and metria <i>infra</i>)	8·98	4·14	5·99
	2	Enthetic diseases (venereal diseases, &c.)	4·72	4·46	7·47
	3	Dietic diseases (privation, want of breast-milk, alcoholism, &c.)	25·55	27·51	11·36
	4	Parasitic diseases (thrush, hydatids, &c.)	8·98	9·37	6·10
II.	1	Diathetic diseases	53·63	46·27	84·25
		Dropsy	7·02	12·15	38·51
		Cancer, &c.	40·39	29·45	36·92
	2	Tubercular diseases	171·01	175·77	336·29
		Phthisis	137·98	127·38	256·72
		Hydrocephalus	18·30	24·71	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 1881.	Average of 27½ Years: 1853 to 1880.	Average of 25 Years: 1850 to 1874.
		ORDERS AND DISEASES— <i>continued.</i>			
III.	...	Diseases of the systems—			
	1	Nervous (brain diseases, &c.) ...	162·15	179·08	280·79
	2	Circulatory (heart diseases, &c.)	96·90	76·81	94·97
	3	Respiratory (lung diseases, &c.)...	188·62	159·56	327·31
	4	Digestive (stomach, bowels—diseases, &c.)	118·88	118·37	100·53
	5	Urinary (kidney, bladder—diseases, &c.)	32·91	18·73	27·26
	6	Generative (ovarian dropsy, &c.)	1·38	2·86	5·70
	7	Locomotive (arthritis, ostitis, &c.)	2·99	3·94	7·74
	8	Integumentary (phlegmon, ulcer, &c.)	4·49	3·46	5·70
IV.	...	Developmental diseases—			
	1	Of children (malformation, teething, &c.)	50·18	78·28	87·01
	2	Of women	18·53	16·45	11·63
		Childbirth (<i>see also</i> Childbirth also metria <i>infra</i>)	17·84	15·92	11·20
	3	Of old people (old age) ...	47·87	24·75	137·37
	4	Diseases of nutrition (atrophy and debility)	84·82	114·48	119·14
V.	1	Accident or negligence	84·01	121·85	} 76·13
	3	Homicide	1·84	2·87	
	4	Suicide	11·74	10·39	
	5	Execution	·12	·42	
I. IV.	1 } 2 }	Childbirth and metria	26·81	20·06	17·19

Results compared.

529. 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:—Some of the zymotic diseases—namely dysentery, diarrhoea, and typhoid fever, diseases of the dietic order (including want of breast-milk and alcoholism), and 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.

Zymotic diseases.

530. The death rate from zymotic diseases was, as in the two previous years, considerably below the average. Ever since the abatement of the fatal epidemics of measles and scarlatina, which commenced in 1874, and continued until 1876, the death rate from this class of complaints has been decreasing, and, although on the average as

high as in England, it has been in the last five years much lower than in that country. The mortality from diarrhoea, dysentery, and typhoid fever, which of all zymotic diseases are the most fatal in Victoria, where also they are on the average much more prevalent than in England—their order of fatality amongst diseases generally being fourth, fifth, and seventh* respectively—was much below the average, most especially in the case of dysentery, which fell to as low as the twenty-sixth place* in 1881. The death rate from scarlatina, diphtheria, and croup, moreover, although usually as high as, was in the last two years considerably below, the English rate. On the other hand, venereal diseases and metria or puerperal fever were the only zymotic complaints in 1881 from which the mortality was above the average. The latter, which was especially fatal in 1881, will be referred to hereafter.†

531. The following table shows the number of deaths from zymotic diseases particularly affecting children which occurred during the eighteen years ended with 1881 :—

Zymotic diseases affecting children.

DEATHS FROM ZYMOTIC DISEASES CHIEFLY AFFECTING CHILDREN, 1864 TO 1881.

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
1881 ...	62	86	114	125	167	115	671	1,340
Total in } 18 years }	3,268	6,471	6,023	3,055	3,433	5,331	13,947	41,528

532. An epidemic of measles occurred in 1880 and 1881, but its effects were not nearly so serious as on the two previous occasions on which that complaint prevailed, the number of deaths from measles having been only 314 in the last two years as against 1,797 in 1874–5,

* See table following paragraph 527 ante.

† See paragraph 583 et seq. post.

and 1,057 in 1866-7. On its first two visitations the epidemic of measles was followed by one of scarlatina, which proved to be even more fatal than the former complaint; but no such calamity succeeded the recent outbreak of measles. Except scarlatina and diarrhœa, all the complaints named in the table caused fewer deaths in 1881 than in 1880; the fatality of the former, however, was still much below the average, and the latter is almost invariably more fatal during the prevalence of a measles epidemic than at other times.

Typhoid fever.

533. Deaths from typhoid fever in 1881 numbered 351, which was 54 more than in 1880, but less by 39 than the average of the past 15 years. The number in 1881 exceeded that in 1868 and in the three years 1871 to 1873, as well as that in 1880; and as compared with population it exceeded that in 1871, 1873, and 1880, but no other years. The following table shows the number of deaths from typhoid fever, and their proportion to the population, during each of the past fifteen years:—

DEATHS FROM TYPHOID FEVER, 1867 TO 1881.

Year.	Deaths from Typhoid Fever.		Year.	Deaths from Typhoid Fever.	
	Total Number.	Number per 10,000 Persons Living.		Total Number.	Number per 10,000 Person Living.
1867	455	7·06	1876	375	4·71
1868	295	4·45	1877	532	6·58
1869	360	5·24	1878	532	6·48
1870	416	5·83	1879	438	5·25
1871	269	3·65	1880	297	3·49
1872	323	4·29	1881	351	4·04
1873	282	3·68			
1874	470	6·04			
1875	455	5·78	Mean ...	390	5·10

Typhoid fever in England and Wales.

534. 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 periods in this colony.

Zymotic diseases in Australasian colonies.

535. The following is a statement of the death rate from zymotic diseases over a series of years in all the Australasian colonies except Western Australia, respecting which no information is at hand. The colonies are placed in order according to the rate prevailing in each:—

* 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	43·4
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

536. It should be mentioned that the period named in the table can hardly be considered an average one, as it embraces the years from 1874 to 1876, in which epidemics of measles and scarlatina prevailed, which increased the death rate, it is true, more or less in all the colonies, but pressed with especial weight upon Victoria. In the six years ended with 1881 the mortality from zymotic diseases in Victoria was at the rate of 38·6 per 10,000, or slightly above that of New South Wales, and in the last two years it was at the rate of 28·3 per 10,000, or below that of any of the other colonies.

Period unfavorable to Victoria.

537. The following table shows the mortality from typhoid fever in all the Australasian colonies except Western Australia during the eight years ended with 1880, or during as many of those years as the information is available for:—

Typhoid fever in Australasian colonies.

DEATHS FROM TYPHOID FEVER IN AUSTRALASIAN COLONIES, 1873 TO 1880.

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
1880 ...	297	3·49	240	3·33	54	2·43
Total ...	3,381	5·25	2,020	5·14	863	5·80
	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
1880 ...	63	2·39	29	2·55	177	3·73
Total ...	705	3·89	302	3·53	1,472	4·74

Deaths from typhoid fever in the colonies, 1880.

538. In all the colonies except Tasmania and New Zealand the death rate from typhoid fever was lower in 1880 than in any, and in those two colonies than in most, of the years named in the table. Usually it appears to be more fatal in Queensland, Victoria, and New South Wales than it is in the other three colonies.

Constitutional diseases—phthisis.

539. The death rate from Constitutional Diseases, Class II., was slightly above the average. By far the most fatal complaint under this head is phthisis or pulmonary consumption, which in 1881 caused 1,199 deaths, a larger number than had ever been previously set down to it in one year. Except during the prevalence of epidemics, phthisis is the occasion of more deaths than any other disease; in 1881, atrophy and debility, which, in order of fatality, stand next to phthisis on the list of causes of death,* caused only three-fifths of the number of deaths set down to the latter. It should also be borne in mind, as showing its baneful effects as compared with those of the former, that atrophy and debility are diseases of infants and young children, whilst the majority of the victims of phthisis are at the adult period of life.

Deaths from phthisis.

540. The following table shows the number of deaths from phthisis and their proportions to the total population in each of the last twenty-one years :—

DEATHS FROM PHTHISIS IN VICTORIA, 1861 TO 1881.

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	1873 ...	945	12·34
1862 ...	707	12·90	1874 ...	1,011	13·00
1863 ...	717	12·74	1875 ...	1,027	13·04
1864 ...	686	11·70	1876 ...	1,010	12·68
1865 ...	741	12·12	1877 ...	1,088	13·46
1866 ...	782	12·43	1878 ...	1,124	13·68
1867 ...	793	12·31	1879 ...	1,058	12·69
1868 ...	746	11·25	1880 ...	1,175	13·82
1869 ...	893	12·99	1881 ...	1,199	13·80
1870 ...	888	12·45			
1871 ...	841	11·41			
1872 ...	876	11·63	Total in } 21 years }	19,060	12·72

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

Death rate from phthisis.

541. By the figures in the table it appears that the death rate from phthisis was highest in 1861, that it then fell until 1871, but since that period there has been a slight increase. During the whole period of 21 years the deaths from this complaint were in the proportion of 12·72

* See table following paragraph 527 ante.

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

per 10,000 persons living ; during the first 11 of those years that proportion was 12·38 and in the last 10 years it was 13·01.

542. In the *Victorian Year-Book* for 1873* the announcement was hazarded that although the death rate from phthisis calculated upon the total population appeared to be tolerably even from year to year, yet the disease was actually increasing in Victoria, and this conclusion was arrived at by an impression, for which there were good grounds, that persons at ages most subject to be attacked by phthisis were not so numerous in the population as they had been, and consequently the death rate from phthisis, if it pressed upon such persons with no more severity than formerly, ought to have declined, which it had not done. To test the accuracy of this assumption, the following table has been prepared, which shows the numbers living at different ages according to the returns of the last three censuses, the mean number of deaths from phthisis in the respective census years and the years before and after them, and the proportion of the deaths at each age to the numbers living at the same age :—

Death rate from phthisis at different ages.

PROPORTION OF DEATHS FROM PHTHISIS TO POPULATION AT DIFFERENT AGES AT LAST THREE CENSUSES.

Ages.	Enumerated Population.			Mean Annual Number of Deaths from Phthisis.			Proportion of Deaths from Phthisis per 10,000 of the Population.		
	1861.	1871.	1881.	1860-2.	1870-2.	1880-1.	1861.	1871.	1881.
MALES.									
0 to 15 years ...	90,024	155,498	167,019	23	19	30	2·55	1·22	1·80
15 „ 20 „ ...	16,850	26,264	49,445	13	15	34	7·72	5·71	6·88
20 „ 25 „ ...	33,513	24,004	40,593	41	45	84	12·23	18·75	20·69
25 „ 35 „ ...	103,462	62,132	50,115	171	138	140	16·53	22·21	27·94
35 „ 45 „ ...	53,628	73,281	49,382	116	160	123	21·63	21·83	24·91
45 „ 55 „ ...	21,605	38,663	54,793	50	86	153	23·14	22·24	27·92
55 „ 65 „ ...	7,414	15,073	28,013	19	42	85	25·63	27·86	30·34
65 and upwards	2,155	6,135	12,723	5	12	19	23·20	19·56	14·93
Total ...	328,651	401,050	452,083	438	517	668	13·33	12·89	14·78
FEMALES.									
0 to 15 years ...	89,297	153,278	164,743	33	15	27	3·70	·98	1·64
15 „ 20 „ ...	16,343	28,292	51,191	23	35	64	14·07	12·37	12·50
20 „ 25 „ ...	22,688	25,418	43,324	43	49	90	18·95	19·28	20·77
25 „ 35 „ ...	46,858	49,495	48,946	116	109	129	24·76	22·02	26·36
35 „ 45 „ ...	22,639	41,570	42,816	58	90	107	25·62	21·65	24·99
45 „ 55 „ ...	9,196	19,896	34,735	23	39	71	25·01	19·60	20·44
55 „ 65 „ ...	3,541	8,563	16,126	8	9	23	22·59	10·51	14·26
65 and upwards	1,109	3,966	8,382	2	5	8	18·03	12·61	9·54
Total ...	211,671	330,478	410,263	306	351	519	14·46	10·62	12·65

* See *Victorian Year-Book* 1873, paragraph 321.

Decrease of
males at
phthisical
ages.

543. From 25 to 55 may be considered to be essentially the phthisical ages.* It is found that a gradual falling-off dating from 1861 has taken place in the numbers of the male population at these ages, whilst at the same ages the deaths of males from phthisis have been more numerous at each successive census period. The figures are as follow :—

		Number of Males living between 25 and 55.	Number of Deaths of Males from Phthisis between 25 and 55.
1861	...	178,695	337
1871	...	174,076	384
1881	...	154,290	416

Increase of
phthisis
amongst
males.

544. The increase of phthisis amongst the male population is strikingly shown by these figures. The number at the phthisical ages was smaller in 1871 than in 1861 by 4,619, and yet the deaths from phthisis at those ages increased by 47; the number was smaller in 1881 than in 1871 by 19,786, and yet the deaths from phthisis increased by 32.

Increase of
phthisis
amongst
females.

545. In the case of the females the figures in the table also show an increase in the mortality from phthisis at the phthisical ages, although not so marked as in the case of the males, and appearing to date only from 1871. Between that period and 1881 there was an actual decrease in the female population at only one of the age-groups, viz., from 25 to 35—the falling-off being 549; but concurrently with this there was in the same group an increase of 20 in the deaths from phthisis. At the whole period of life which has been taken as the representative one, viz., from 25 to 55, the female population increased, but the mortality from phthisis increased in a still faster ratio, the proportion being 1 death from phthisis in 466 females living in 1871, and 1 in 412 in 1881.

Relative
death rate
from
phthisis
amongst
males and
females.

546. By means of the calculations in the table, it is elicited that the mortality of males from phthisis, at from 15 to 20, is only about half that of females; that, at from 20 to 45, the mortality of males and females from that complaint relatively to their respective numbers is about equal; and that after 45 phthisis presses much more hardly upon males than females. As regards the effects of the complaint upon the population at all ages, it is shown that in 1861 it affected females more than males, but in 1871 and 1881 the reverse was the case, males being much the more heavily affected.

Ages at
death from
phthisis.

547. The following table gives the number of deaths from phthisis at each age in 1881; also the proportion which such deaths bore to the total deaths from all causes in 1881 and in the previous ten years :—

* According to the table, this is strictly true in regard to females, but from 55 to 65 is the period at which the proportion of males dying from phthisis was highest. The present argument, however, is not affected by this circumstance.

DEATHS FROM PHTHISIS, 1881.—AGES AT DEATH.

Ages.	Number who Died from Phthisis, 1881.			Percentage of Deaths from Phthisis to those from all Causes.	
	Males.	Females.	Total.	1881.	Ten Years: 1871-80.
Under 5 years ...	18 13	5 5	18 18	.41	.51
5 to 10 „ ...	5 5	4 5	9 10	2.65	1.40
10 „ 15 „ ...	7 8	11 12	18 20	8.37	5.15
15 „ 20 „ ...	35 36	50 67*	85 103	25.94	21.22
20 „ 25 „ ...	58 96	52 91*	110 187	36.10	32.22
25 „ 35 „ ...	40 140	38 121	78 261	30.07	29.18
35 „ 45 „ ...	8 129	7 103	15 232	21.25	20.27
45 „ 55 „ ...	1 156	1 68	2 224	15.21	13.69
55 „ 65 „ ...	... 93	1 26*	1 119	9.10	8.30
65 „ 75 „ ...	... 15	... 5	... 20	2.04	2.97
75 years and upwards... ..	... 2	... 1	... 3	.47	.83
Unspecified	1 2*	... ..	1 2	...	...
Total	168 695	169 504	337 1,199	9.75	8.29

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

548. From the last column of the table it may be found that whilst at all ages phthisis causes on the average 1 death in 12, it causes a much higher relative mortality at the adult period of life. At from 15 to 20, and 35 to 45, about 1 in 5 ; at from 20 to 25, about 1 in 3 ; at from 25 to 30, nearly 1 in 3 ; at from 45 to 55, about 1 in 7 of the total deaths being due to its effects. Phthisis most fatal to adults.

549. By the small figures in the columns it appears that nearly a third of the persons who died of phthisis in 1881 were natives of Victoria, the males and females being equal. About four-fifths of the former and five-sixths of the latter were between the ages of 15 and 35. Deaths of Victorians from phthisis.

550. 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-one years :— Phthisis in Melbourne and country.

DEATHS FROM PHTHISIS PER 10,000 PERSONS LIVING IN AND OUTSIDE GREATER MELBOURNE, 1861 TO 1881.

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	1881 ...	22.71	9.45
1871 ...	22.08	7.20	Means	22.10	8.83

* Including in each case 1 Aboriginal of Victoria.

Phthisis in
Melbourne
and United
Kingdom.

551. 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 Kingdom, where, per 10,000 persons living, it was 22·24 in 1875, 21·45 in 1876, 21·01 in 1877, and 21·34 in 1878; 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, where in 1878 it was 28 per 10,000 persons living.

Phthisis
among
Chinese.

552. Of the Chinese who died in Victoria in 1881, 25, or 22 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
Aborigines.

553. Four out of the 20 deaths of Aborigines in 1881 were set down to phthisis. 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 in
Austral-
asian
colonies.

554. 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

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

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

Victoria in which the rate in any of the years exceeded 13 per 10,000* :—

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES,
1873 TO 1880.

Year.	Number of Deaths from Phthisis.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
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
1880 ...	1,175	13·82	803	11·13	301	13·56
Total...	8,438	13·10	4,028	10·18	1,866	12·52
	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
1880 ...	277	10·51	113	9·95	447	9·42
Total...	1,785	9·84	877	10·25	2,620	8·44

555. With reference to the high death rate from phthisis shown by the returns of Victoria as compared with that shown by those of the neighboring colonies, it should be pointed out that, under the varying terms used by medical men to indicate the complaint, it is apt to be wrongly classed by inexperienced or careless tabulators. The very care exercised in Victoria to place under the proper head all the deaths which really result from phthisis may possibly be the cause of this colony getting the credit of being more subject to that complaint than other countries wherein the same care may not always be exercised. The very unevenness of the figures relating to some of the colonies causes them to be regarded with a certain amount of suspicion.

Phthisis
returns of
other
colonies
perhaps not
reliable.

* It is pointed out by the Registrar-General of Queensland, in recent Annual Reports, that the death rate from phthisis in that colony is considerably swelled by the prevalence of the disease amongst the Polynesians, nearly one-third of such deaths in 1880 having been caused by phthisis. Excluding the Polynesians from the calculation, the death rate from phthisis in Queensland in 1880 was only 8·25 per 10,000.

Deaths from
cancer.

556. Next to phthisis, the most fatal of the constitutional diseases is cancer. This complaint caused 351 deaths in 1881, which was less by 32 than the number in 1879 or 1880, but was in excess of that in any other year. Cancer in a fatal form has been much increasing of late years; it stood ninth in 1881, eighth in 1880, and ninth in 1879, in the list of causes of death*—its usual place being the nineteenth; and since 1866 the death rate from it has increased steadily from less than 2 to upwards of 4 per 10,000 of the population. The following table shows the number of deaths from cancer, and the number per 10,000 persons living, in each of the last twenty-one years:—

DEATHS FROM CANCER, 1861 TO 1881.

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
1881	172	179	351	4·04
Total in 21 years...	2,426	2,262	4,688	3·13

Proportions
of the sexes
who died of
cancer.

557. Cancer is a complaint which habitually affects females more than males. In the twenty-one years of which mention is made in the table, 93 of the former have died of it to every 100 of the latter, whereas the proportion of females to males at ages at which cancer is most prevalent has always† been considerably below the proportion named.

* See table following paragraph 527 *ante*.

† Females were in the proportion of 64 at the census of 1881, and of 91 at the census of 1881, to every 100 males.

558. The death rate under Class III., local diseases, was above the average. The increase was distributed over all the orders of diseases excepting those affecting the digestive system, which caused about the average number of deaths, and those affecting the nervous, generative, and locomotive systems, the mortality from which was slightly below the average. Diseases of the nerves and brain formerly caused most deaths in this class, but their fatality during the last three years has not been so great as that of diseases of the respiratory system, in which are included pneumonia, bronchitis, and congestion of the lungs, which in 1881 together caused 1,402 deaths, or more than one-ninth of the total mortality, and stood sixth, seventh, and seventeenth respectively in the list of causes of death.* Besides that from diseases of the respiratory system, the increased mortality in 1881, as also in the three previous years, was most marked in the case of diseases of the circulatory and urinary systems—the rate from each of which in 1881 was even greater than in England. Under the latter head the most fatal complaint is nephria (Bright's disease), which caused 140 deaths in 1881 as compared with 107 in 1880.

559. 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. The death rate from those peculiar to adults, Order 2, and the death rate from old age, Order 3, which has for some years past been increasing, were 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; whilst the diminished death rate of infants from premature birth, teething, and other complaints under Order 1 is probably due to the changed circumstances of the colony, which admit of mothers living in greater comfort, and infants being treated with greater care and attention than they were formerly. The deaths from premature births numbered 325 in 1881, which gives a proportion of over 10 per cent. of the total deaths under 1 year, and amounts to $1\frac{1}{2}$ per cent. of the total births recorded. The principal diseases under Orders 2 and 4—childbirth and atrophy—will be referred to shortly.†

* See table following paragraph 527 *ante*.

† See next paragraph, and paragraph 583 *post*.

Atrophy and debility.

560. Deaths under the head of atrophy and debility were in 1881 somewhat above the average. The mortality under this head is almost entirely confined to young children and infants—thus, of the 737 set down thereto in 1881, 648 were under 5 years, 597 were under 1 year, 275 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 fifteen years ended with 1881 :—

DEATHS FROM ATROPHY AND DEBILITY, 1867 TO 1881.

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	1881 ...	392	345	737
1873 ...	378	336	714				
1874 ...	402	337	739	Total in fif-	5,704	4,944	10,648
1875 ...	413	349	762	teen years			

Sex of those who died of atrophy, &c.

561. 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 fifteen years, females died of these complaints in the proportion of 87 to every 100 males.

Violent deaths.

562. Deaths from external causes, Class V., in proportion to population, were formerly twice as numerous in Victoria as in England and Wales; but in recent years the proportion has fallen considerably. Over a series of 27 years the average annual number of violent deaths per 100,000 of the population was 136, but during the last ten years it was only 108, and in the year under review it fell to as low as 98. This last-named rate, however, is higher by more than a fourth than that prevailing in England and Wales, where it averages only 76.

Violent deaths, 1871 to 1881.

563. Of the 849 violent deaths recorded in Victoria during 1881, 730, or 86 per cent., were ascribed to accident; 16, or 2 per cent.,

to homicide; 102, or 12 per cent., to suicide; and 1 to execution. Deaths from accidents were formerly more numerous than those from any single disease, but in 1881 they were less than the deaths caused by either phthisis, atrophy, or heart disease; 47 per cent. of the deaths from accident were due to fractures, and 24 per cent. to drowning. Homicides were much below, but suicides were above, the average; the number of the latter exceeded 100 in each of the last three years, a number which during the last fifteen years was only reached once before, viz., in 1876. 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 1881 and the previous decenniad, the sexes of those who died being distinguished:—

VIOLENT DEATHS, 1871 TO 1881.

Causes of Death.	Year 1881.			Ten Years: 1871 to 1880.		
	Males.	Females.	Total.	Males.	Females.	Total.
Accidents:—						
Fractures and contusions	310	32	342	2,911	241	3,152
Gunshot wounds ...	14	2	16	} 226	36	262
Cuts, stabs, &c. ...	14	1	15			
Burns and scalds ...	43	39	82		371	514	885
Sunstroke ...	9	9	18	158	60	218
Lightning ...	7	...	7	22	3	25
Poison ...	11	6	17	112	66	178
Snake, insect—bite ...	5	...	5	24	13	37
Drowning ...	130	46	176	1,558	379	1,937
Suffocation ...	28	18	46	409	216	625
Others ...	5	1	6	97	31	128
Total ...	576	154	730	5,888	1,559	7,447
Homicide ...	6	10	16	123	67	190
Suicide:—						
Gunshot wounds ...	13	1	14	69	...	69
Cuts, stabs, &c. ...	12	2	14	164	21	185
Poison ...	11	7	18	144	44	188
Drowning ...	15	9	24	151	66	217
Hanging ...	26	2	28	233	23	256
Otherwise ...	3	1	4	31	5	36
Total ...	80	22	102	792	159	951
Execution ...	1	...	1	19	...	19
Grand Total ...	663	186	849	6,822	1,785	8,607

Violent
deaths in
proportion
to total
deaths.

564. During the eleven years ended with 1881, 76,914 males and 57,604 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 596 was a victim to homicide ; 1 in every 88 committed suicide ; and 1 in every 3,845 was executed. Of the females, 1 in every 29 died a violent death ; 1 in every 34 died of an accident ; 1 in every 748 died by the hand of another ; 1 in every 318 committed suicide ; but, happily, not one was executed.

Violent
deaths of
males and
females.

565. Males are much more subject to violent deaths than females. Of those who so died in 1881, 663, or 78 per cent., belonged to the male, and 186, or 22 per cent., to the female sex.

Violent
deaths :
proportion
of males and
females.

566. 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, 5 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 20 males were executed.

Burns and
scalds.

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

Suicidal
deaths.

568. One hundred and two persons took their own lives in 1881, and 118 in the previous year. During the ten years ended with 1880 the mean annual number of deaths by suicide was 95.

Modes of
committing
suicide.

569. 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 hanging or stabbing, but only once in the 181 cases named in the table by shooting.

Suicides of
Chinese.

570. Suicide frequently occurs amongst the Chinese. Six men of this race committed that act in 1881, all by hanging. The total number of Chinese males in the colony was ascertained at the recent census to be 11,869 ; so that those who committed suicide during the year were in the proportion of about 1 in 1,978.

Suicides in
Austral-
asian
colonies.

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

than in any other Australasian colony except Queensland. It should, however, be stated that the death records frequently do not upon the surface show that the death has been suicidal, and close examination, with sometimes further 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 eight years ended with 1880 recorded in all the Australasian colonies except Western Australia :—

DEATHS FROM SUICIDE IN AUSTRALASIAN COLONIES,
1873 TO 1880.

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
1880 ...	118	1·39	68	·94	22	·99
Total ...	790	1·23	465	·91	197	1·32
	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
1880 ...	25	·95	8	·70	38	·80
Total ...	149	·82	55	·64	260	·84

572. 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 eight years named in the table.

Proportion of suicides in different colonies.

Violent
Deaths in
Victoria and
European
countries.

573. 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 seem to occur with more frequency in Victoria than in any of the countries, and suicides than in any except Switzerland. Homicide, relatively to population, appears to be about as prevalent as 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 :—

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

Railway
accidents.

574. 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-three years ended with 1881, embracing the whole period of the existence of railways in Victoria :—

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

DEATHS AND INJURIES FROM RAILWAY ACCIDENTS, 1859 TO 1881.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own misconduct or want of caution.	Total.	From causes beyond their own control.	From their own misconduct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868	37	...	...	...	3	19	22	1	14	...
1869	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
1881	34	4	4	8	...	14	14	3	8	1
Total killed	207	4	5	9	14	86	100	14	72	12

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
1881	64	46	4	50	1	10	11	...	2	1
Total injured	378	167	14	181	42	112	154	7	23	13

575. It will be observed that, in the whole period of twenty-three years, 207 persons were killed and 378 were injured on the State lines of railway, and that, exclusive of trespassers, persons crossing the lines, &c., 91 of the former and 126 of the latter met their death or injury in consequence of their own misconduct or want of caution. Nine passengers and as many as 100 railway or contractors' servants were killed throughout the period, 5 of the former, and 86 of the latter, having been so in consequence of their own carelessness. The passengers

Railway passengers and servants killed and injured.

injured numbered 181, and the railway servants 154, or 27 less ; as many as 112 of the latter, but only 14 of the former, suffered from their own action. At crossings only 14 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 72 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.

Railway accidents, 1881.

576. The casualties resulting from railway accidents were much more numerous in 1881 than in any other year. The most important accident was at Jolimont, when the Brighton express train got off the line, in consequence of which three carriages were precipitated over a low embankment, causing loss of life to 4 persons, and injury of a more or less serious character to 39 others. A collision, moreover, occurred at Beaufort, on which occasion 7 persons were injured.

Mining accidents.

577. In the eight years ended with 1881, embracing the whole period the Regulation of Mines Statute 1873 (37 Vict. No. 480) has been in operation, 502 persons lost their lives, and 1,201 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 :—

DEATHS AND INJURIES FROM MINING ACCIDENTS, 1874 TO 1881.

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
1881	38,436	72	108	180	1·87	2·81	4·68
Means	39,985	63	150	213	1·58	3·75	5·33

Mining accidents, 1881.

578. In 1881, fatal mining accidents were more numerous than in any other year since 1875, but non-fatal ones were less so than in any other year named except 1878 and 1880. In comparison with earlier years, however, the persons killed and injured in and in connection with mines have lately much diminished both in numbers and in proportion to the miners at work.

579. In the eight years to which reference is made, 1 miner in every 635 lost his life annually. This proportion contrasts favorably with a similar one for 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.

Mining accidents in Victoria and England.

580. It appears by the following table that in the eight years named, 852, or 50 per cent., of the mining accidents in Victoria were caused by the fall of earth or materials ; 259, or 15 per cent., by falling down shafts, &c. ; and 215, or 13 per cent., by explosions :—

Causes of mining accidents.

CAUSES OF MINING ACCIDENTS, 1874 TO 1881.

Nature of Accident.	Number of Persons—		
	Killed.	Injured.	Total.
Fall of earth or rock underground	209	370	579
" " on surface	78	65	143
" materials down shafts	27	87	114
" " " passes or jump-ups... ..	...	16	16
Falling down shafts	75	98	173
" " winzes or shoots	9	41	50
" and slipping underground ... ..	...	21	21
" " at surface ... ..	...	15	15
Cage accidents	26	60	86
Timber accidents	9	18	27
Truck accidents ... ..	...	26	26
Machinery in motion	14	52	66
Explosion of blasts—gunpowder	13	89	102
" " guncotton	1	10	11
" " dynamite	3	5	8
" " lithofracteur	6	12	18
" " rockburster ... ..	...	2	2
" " other explosives, or not named	3	17	20
" explosives not blasts	4	25	29
" boilers ... ..	...	5	5
" fire damp	1	19	20
Foul air	3	...	3
Undescribed	21	148	169
Total	502	1,201	1,703

581. The number of deaths of persons over 80 years of age, and their exact ages at death, have been already quoted for 1881 and the previous ten years. The following table shows the causes of death of these persons :—

Causes of death of octogenarians.

CAUSES OF DEATH OF OCTOGENARIANS, 1871 TO 1881.

Causes of Death.	Ten Years ended with 1880.		Year 1881.		Total 1871 to 1881.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
Quinsy ... ..	...	1	...	...	...	1	1
Typhoid Fever, &c.	3	2	...	...	3	2	5
Erysipelas	2	6	1	1	3	7	10
Carbuncle, Boil	1	2	2	...	3	2	5
Influenza, Coryza, Catarrh	4	11	1	...	5	11	16
Dysentery and Diarrhoea	42	33	9	3	51	36	87
Cholera	3	1	3	...	6	1	7
Rheumatism	6	4	1	...	7	4	11
Venereal Diseases	4	...	...	...	4	...	4
Privation	2	...	1	...	3	...	3
Scurvy	1	...	...	...	1	...	1
Intemperance	2	1	...	...	2	1	3
Hydatid	1	...	...	...	1	...	1
Gout	2	...	...	...	2	...	2
Dropsy	16	16	4	2	20	18	38
Cancer	29	9	6	4	35	13	48
Tumor ... ..	...	3	...	...	...	3	3
Mortification	7	3	2	...	9	3	12
Phthisis	2	3	1	...	3	3	6
Abscess, &c.	1	...	...	...	1	...	1
Brain Diseases, &c.	110	83	26	20	136	103	239
Heart Diseases, &c.	50	37	16	9	66	46	112
Lung Diseases, &c.	160	100	23	16	183	116	299
Stomach Diseases, &c.	31	20	6	1	37	21	58
Kidney Diseases, &c.	34	1	13	..	47	1	48
Gennetic Diseases ... ..	...	1	...	...	...	1	1
Skin Diseases, &c.	4	1	...	1	4	2	6
Old Age	550	441	81	97	631	538	1,169
Accidents	19	14	3	4	22	18	40
Suicide	3	...	1	...	4	...	4
Unspecified causes	2	...	...	...	2	...	2
Total	1,091	793	200	158	1,291	951	2,242

Complaints most fatal to octogenarians.

582. It will be noticed that in the case of nearly half the males and more than half the females no complaint was set down except old age. It may, moreover, be ascertained from the figures that about a seventh of the males and about an eighth of the females died of diseases of the organs of respiration, chiefly pneumonia and bronchitis; that about a ninth of both males and females died of affections of the brain and nerves; that about 1 in 20 of the males and 1 in 21 of the females died of disease of the heart; that 1 in 35 of the males and 1 in 45 of the females died of complaints of the organs of digestion; that 1 in 27 of the males but only 1 in 951 of the females died of complaints of the kidneys; that 1 in 25 of the males and 1 in 26 of the females died of dysentery or diarrhoea; that 1 in 37 of the males and 1 in 73 of the

females died of cancer; and that 1 in 64 of the males and 1 in 53 of the females died of dropsy; and that 1 in 59 of the males and 1 in 51 of the females died of accidents.

583. 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. In 1881 the deaths from child-bearing were more numerous, and their proportion to the children born was higher, than in any other year named in the following table except 1874 and 1875:—

DEATHS OF WOMEN IN CHILDBIRTH, 1864 TO 1881.

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
1881	155	78	233	85.84
Total in eighteen years	2,180	680	2,860	59.77

584. It is a remarkable fact that at or about the three periods during the last eighteen years at which epidemics of measles and scarlatina have

Increase of deaths in childbed at epidemic periods.

prevailed in Victoria, viz., 1866-7, 1874-5, and 1880-1, the mortality of child-bearing women has largely increased. Whether this is only a coincidence, or whether there is any connection between the two circumstances, is a matter which merits the consideration of the medical faculty. It should be mentioned that the last visitation differed somewhat from the two previous ones, as the epidemic was solely one of measles, and deaths of child-bearing women did not increase in numbers concurrently with it, but in the year following that in which it was at its worst.

585. The proportion of women dying in childbed during the whole period of eighteen years was 1 to 167 births, but in 1881 the proportion was as high as 1 to every 116 births. In 1880, the proportion was 1 to every 200 births; in 1879, 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 that 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.

586. In the Melbourne Lying-in Hospital, 601 women were confined, and 560 infants were born alive, in 1881. Twenty-one deaths of mothers occurred during or shortly after parturition. Thus 1 death of a mother occurred to every 29 deliveries, or to every 27 births. This is a very high rate of mortality, it being three times as high as in the previous year, and even twice as high as in the year 1874, when the mortality of child-bearing women in the colony generally was at its maximum. In this institution, in 1880, 1 death of a mother took place to every 98 deliveries or 89 births; in 1879, 1 to 71 deliveries or 67 births; in 1878, 1 to 92 deliveries or 86 births; in 1877, 1 to 65 deliveries or 61 births; in 1876, 1 to 68 deliveries or 65 births; in 1875, 1 to 67 deliveries or 62 births; and in 1874, 1 to 64 deliveries or 60 births. It should be mentioned that, all over the world, maternity hospitals are subject to receive a worse class of cases than the average of those dealt with outside, women not unfrequently being brought in such a state as to render their recovery from the first almost hopeless; therefore, in all such institutions, the death rate of the inmates is higher

* 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.

Deaths in
childbed in
Victoria and
United
Kingdom.

Deaths of
women in
Lying-in
Hospital.

than that which prevails amongst child-bearing women in the general population.

587. Besides the numbers confined in the Lying-in Hospital in 1881, 76 women were accouched by midwives connected with the institution at their own homes or in houses provided by the committee, the services of the resident surgeon of the hospital being called in when complications arose. Out of this number 2 deaths occurred, or 1 to every 38 deliveries.

Out-door patients of Lying-in Hospital.

588. Of the 23 women who died in 1881 after being confined in the Lying-in Hospital, or outside under the supervision of its officers, 2 are stated to have succumbed to puerperal convulsions, 3 to placenta prævia, 3 to puerperal mania, 7 to peritonitis, 2 to exhaustive diarrhoea, 1 to cancer of the uterus, 1 to pneumonia and typhoid fever, 1, who had heart disease, to embolism of the pulmonary artery, 1 to acute bronchitis on which pneumonia and finally pleurisy supervened, 1 to chronic lung disease, and 1 fretted herself to death. The last 5 are considered by the committee of management to have died of causes not connected with their confinement. The committee further state that, of those who died, 2 were in an unconscious condition, 1 was almost moribund, and 1 was in a low state from flooding on admission; also that the victims to puerperal mania were all single girls in a low mental condition when they were received into the institution.*

Causes of death of lying-in women

589. 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. Whether from a desire to conceal the fact of their losing patients in this manner, or from inadvertence, medical men frequently enter the cause of death as debility, exhaustion, blood-poisoning, phlebitis, embolism, 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 eight years ended with 1880, and the proportion of such deaths to every 10,000 children born alive in each colony :—

Deaths in childbed in Australasian colonies.

* See Report for 1881 of the Melbourne Lying-in Hospital, page 7 *et seq.*

DEATHS FROM CHILDBIRTH AND METRIA IN AUSTRALASIAN
COLONIES, 1873 TO 1880.

Year.	Number of Deaths from Childbirth and Metria.					
	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
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
1880 ...	131	50·09	127	45·10	42	51·24
Total...	1,487	69·45	768	51·17	315	55·90
	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
1880 ...	39	38·00	18	48·14	76	39·29
Total...	338	49·33	168	63·60	609	48·06

590. The connection between the prevalence of measles and scarlatina and of those circumstances which cause the deaths of women in childbed is exemplified in the returns of the neighboring colonies as well as in those of Victoria; 1875 and 1876 being about the years in which these epidemics were at their height, concurrently with the greatest mortality occurring to child-bearing women.

591. 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 1881 was 14,996, and the number of deaths was 1,634. In 1880, the cases of sickness treated numbered 15,120, and the deaths 1,413. There was thus 1 death to every 9·2 cases of sickness treated in hospitals during 1881, as against 1 death to every 10·7 cases of sickness treated therein during the previous year.

592. 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 1881, and the proportion of deaths to cases in each hospital during that and the previous year:—

Increase of deaths in childbed during epidemics in all the colonies.

Sickness and deaths in general hospitals.

Death rate in each hospital.

SICKNESS AND MORTALITY IN GENERAL HOSPITALS.

Name of Hospital.	Year 1881.			Percentage of Mortality to Cases treated, 1880.
	Number of Cases treated.	Number of Deaths.	Percentage of Mortality to Cases treated.	
Alexandra	22	3	13.64	...
Amherst	252	28	11.11	11.42
Ararat	305	18	5.90	4.93
Ballarat	844	100	11.85	11.16
Beechworth	514	52	10.12	7.43
Belfast	46	4	8.69	1.89
Bendigo	1,306	152	11.64	9.32
Castlemaine	851	65	7.64	6.34
Clunes	213	8	3.76	9.75
Creswick	253	22	8.69	6.17
Daylesford	176	16	9.09	2.58
Dunolly	366	39	10.66	6.04
Geelong	901	79	8.77	6.85
Hamilton	429	18	4.19	5.14
Heathcote	66	8	12.12	12.64
Horsham	223	18	8.07	7.76
Inglewood	309	30	9.71	7.08
Kilmore	131	9	6.87	10.87
Kyneton	544	32	5.88	5.14
Maldon	63	11	17.46	15.69
Mansfield	99	5	5.05	2.65
Maryborough	351	26	7.41	8.99
Melbourne	4,023	634	15.76	13.99
Melbourne (Alfred)	1,084	104	9.59	6.88
Melbourne (Homœopathic)	146	14	9.59	2.76
Mooroopna	270	19	7.04	6.86
Pleasant Creek	223	33	14.80	7.49
Portland	57	6	10.53	4.60
Sale	232	16	6.90	10.09
St. Arnaud	217	21	9.68	9.90
Swan Hill	82	8	9.76	5.22
Wangaratta	192	18	9.37	12.50
Warrnambool	104	11	10.58	8.21
Wood's Point	102	7	6.86	5.43
Total	14,996	1,634	10.90	9.35

593. In proportion to the cases treated, the greatest mortality occurred in the Maldon, Melbourne, and Pleasant Creek Hospitals; and the least in the Clunes, Hamilton, and Mansfield Hospitals. In 1880 the rate of mortality was highest in the Maldon and Melbourne Hospitals; and, with the exception of the Alexandra Hospital, where no deaths occurred, lowest in the Belfast, Daylesford, Mansfield, and Melbourne Homœopathic Hospitals.

Highest and lowest death rates.

594. The patients treated in the Hospital for Diseases of Women and Children attached to the Lying-in Hospital numbered 275 in 1880, and 288 in 1881. The deaths in the same institution numbered 15 in

Sickness and deaths in hospital for women.

the former and 21 in the latter year. Therefore, 1 patient in 18 died in 1880, and 1 in 14 in 1881.

Deaths of
mothers in
Lying-in
Hospital.

595. In the Melbourne Lying-in Hospital 586 women were confined in 1880, and 601 in 1881. Six died in the former year, and 21 in the latter. Thus, 1 woman in 98 died in 1880, and 1 woman in 29 in 1881. From the founding of the institution to the end of 1881, 9,861 women were accouched therein,* of whom 142 died, or 1 death to every 69 confinements.†

Deaths of
infants in
Lying-in
Hospital

596. The infants born alive in the Lying-in Hospital numbered 532 in 1880, and 560 in 1881, and of these, 30 in the former and 54 in the latter year died before leaving the institution; thus 1 infant in 18 died in 1880, and 1 infant in 10 in 1881.‡

Sickness and
deaths in
children's
hospital.

597. In the Melbourne Hospital for Sick Children, 438 cases were treated, and 36 deaths occurred, in 1880; 469 cases were treated, and 34 deaths occurred, in 1881. These numbers furnish proportions of 1 death to every 12 patients in the former and 1 death to every 14 patients in the latter year.

Sickness and
deaths in
benevolent
asylums.

598. Cases of sickness in benevolent asylums numbered 1,178 in 1880, and 1,037 in 1881; deaths numbered 141 and 174. The deaths were thus to the cases treated in the proportion of 1 to 8 in 1880, and of 1 to 6 in 1881.

Sickness and
deaths in
Immigrants'
Home.

599. In the Melbourne Immigrants' Home the cases of sickness in 1880 amounted to 623, and the deaths to 84, or 1 death to every 7 cases of sickness. In 1881, the cases of sickness in this institution numbered 772, and the deaths 58, or 1 death to every 13 cases of sickness.

Sickness and
deaths in
orphan
asylums.

600. In 1880, the cases of sickness in orphan asylums numbered 293, and the deaths 5. In 1881, these numbers were 121 and 8 respectively. Thus, in 1880, 1 death occurred to every 59 cases of sickness, and, in 1881, 1 death to every 15 cases of sickness.§

Sickness and
deaths in
lunatic
asylums.

601. In hospitals for the insane during 1880 the cases of sickness numbered 2,298, and during 1881 they numbered 1,812. The deaths amounted to 221 at the former period, and 202 at the latter, or an average of 1 death to every 10 cases of sickness in 1880, and 1 to every 9 cases in 1881.

Sickness and
deaths in
gaols.

602. In gaols and penal establishments 1,075 cases of sickness occurred in 1880, and 862 in 1881. The deaths in these two years

* A few of these women were accouched outside the hospital.

† See paragraph 586 *ante*.

‡ See paragraph 507 *ante*.

§ In orphan asylums the proportion of deaths to cases of sickness appears much smaller in 1881 than in the previous year, owing to the exclusion in 1881 of trivial cases of sickness which were formerly included.

respectively were 43 and 42. Thus, 1 death occurred to every 25 cases in 1880, and 1 death to every 21 cases in 1881.

603. Altogether the number of deaths in penal or charitable institutions in 1881 was 2,299, or being in the proportion of 1 to every $5\frac{1}{3}$ deaths which took place in Victoria during the year. The deaths in such institutions in the four previous years were in the proportion of 1 to every 6 deaths, 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 1881 :—

Deaths in public institutions.

DEATHS IN PUBLIC INSTITUTIONS, 1881.

Number of Deaths.		Number of Deaths.	
General hospitals ...	1,634	Hospitals for the insane ...	202
Hospital for Diseases of Women and Children ...	21	Female refuges ...	15†
Lying-in Hospital ...	77*	Industrial and reformatory schools ...	31‡
Hospital for Sick Children ...	34	Gaols ...	41
Benevolent asylums ...	174	Penal establishments ...	1
Melbourne Immigrants' Home	58		
Orphan asylums ...	8	Total ...	2,299
Blind asylum ...	3		

NOTE.—In 1881 no death occurred in the Deaf and Dumb Asylum or Eye and Ear Hospital.

604. 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.

605. The number of cases of successful vaccination in 1881 was 27,245, which is greater than the number of births by 100. This unusual circumstance was due to the alarm occasioned by an outbreak of small-pox, first in Sydney and subsequently on board of vessels arriving at Melbourne, which induced a large number of persons at all ages to be vaccinated. In 1880 the vaccinations numbered only 19,132, being equal to about 73 per cent. of the children born. They amounted in 1879 and 1878 to 82 per cent. of the births, 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.

Vaccinations.

606. The following are the results of meteorological observations taken at different stations throughout the colony during 1881. 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

Meteorological observations, 1881.

* This includes the deaths of 54 infants born in the institution.

† This includes the deaths of 10 children of inmates of the Female Refuge, Madeline street.

‡ Including deaths of boarded-out children.

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, 1881.

Stations.	Height above Sea-level.	Temperature in the Shade.		
		Max.	Min.	Mean.
	feet.	°	°	°
Portland	37·0	97·0	32·0	56·7
Melbourne	91·3	99·9	31·9	57·1
Cape Otway	270·0	101·0	38·0	55·0
Wilson's Promontory	300·0	100·0	40·0	55·8
Sandhurst	758·0	105·0	28·3	59·6
Ballarat	1,438·0	99·0	28·0	54·4

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	30·020	195	32·02	·729	4·8
Melbourne	29·966	134	24·08	·685	5·9
Cape Otway	29·775	169	31·82	·829	7·9
Wilson's Promontory	29·648	166	40·72	·744	6·1
Sandhurst	29·264	86	12·89	·723	4·2
Ballarat	28·519	143	23·44	·668	5·9

Meteorology in Melbourne, 1864 to 1881.

607. The following are the results for Melbourne in each of the eighteen years ended with 1881:—

METEOROLOGICAL OBSERVATIONS AT MELBOURNE.—RETURN FOR EIGHTEEN YEARS.

(Observatory 91·3 feet above the Sea-level.)

Year.	Temperature in the Shade.			Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Mean Amount of Cloud.
	Max.	Min.	Mean.					
	°	°	°	inches.	No.	inches.	0-1.	0-10.
1864	96·6	30·5	57·1	29·94	144	27·40	·72	6·1
1865	103·4	30·9	56·5	29·94	119	15·94	·68	5·6
1866	108·2	28·0	57·8	29·95	107	22·41	·70	5·5
1867	108·4	29·7	57·7	29·92	133	25·79	·72	5·7
1868	110·0	27·4	57·1	29·98	120	18·27	·70	5·7
1869	108·4	27·0	57·2	29·94	129	24·59	·71	6·0
1870	109·0	29·6	57·4	29·93	129	33·76	·74	5·8
1871	106·0	32·1	57·7	29·93	125	30·17	·74	5·9
1872	103·3	32·5	57·6	29·92	136	32·52	·74	6·4
1873	102·4	30·2	58·0	29·94	134	25·61	·72	6·0
1874	102·7	29·3	56·6	29·93	134	28·10	·72	6·1
1875	110·4	31·1	56·6	29·89	158	32·87	·72	6·2
1876	110·7	29·0	57·0	29·93	134	24·04	·70	5·8
1877	100·7	31·0	56·7	29·99	124	24·10	·70	5·8
1878	103·4	31·1	57·4	29·90	116	25·36	·71	6·0
1879	106·0	30·5	56·8	29·92	127	19·28	·71	5·8
1880	106·5	29·0	57·8	29·92	147	28·48	·72	6·0
1881	99·9	31·9	57·1	29·97	134	24·08	·68	5·9
Means	105·3	30·0	57·2	29·93	131	25·71	·71	5·9

608. It will be noticed that in 1881, according to observations taken at the Melbourne Observatory, the maximum temperature was over 5 degrees below, and the minimum temperature about 2 degrees above, the mean of the maxima and minima in eighteen years; that the mean temperature and the mean relative humidity were a fraction below, and the mean atmospheric pressure was a fraction above, the average of the same period; also, that although rain fell on 3 more days than usual, and an average amount of cloud prevailed, the rainfall was $1\frac{3}{4}$ inches below the average.

Observations in 1881 compared with 18-year means.

609. During the period of eighteen years a lower temperature than the maximum of 1881 was experienced in only one and a higher one than the minimum in only two different years; the mean temperature was equalled in two and was lower in six years; in two previous years the mean atmospheric pressure was higher than in 1881; the number of days' rain was equalled in four and exceeded in four years, and the amount of rainfall was equalled in two and exceeded in all the other years except four; in only one previous year was the mean relative humidity as low as in 1881.

Observations in 1881 and former years compared.

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

Meteorology elsewhere treated on.

PART V.—INTERCHANGE.

611. The weights and measures used in Victoria are in every respect similar to those in use in the United Kingdom.

Weights and measures.

612. The returns of imports and exports, as given in the following pages, are arranged according to a system of classification recommended by the Statistical Conference of representatives of the Australasian colonies held in Tasmania in 1875,* the principle kept in view being that articles of a like nature should be classed together. The present is the sixth year in which this mode of classification has been used in Victoria. It has met with the approval of eminent statisticians in Europe and elsewhere, but has not yet been adopted by the other colonies represented at the Conference.

Imports and exports classified.

613. In the case of the imports, the values given are those declared to by the importers, except as to goods subject to duty *ad valorem*, the values assigned to which are understood to be the fair market value thereof in the principal markets of the country whence the same were

Mode of valuing imports and exports.

* See report of Conference, with introductory letter by the Government Statist of Victoria (Parliamentary Paper No. 11, Session 1875), page 6, paragraph 16; page 9, resolution 6; and page 12, Appendix A; also *Victorian Year-Book*, 1875, paragraphs 96 to 99 and footnotes.