

the sums expended by local bodies on public works, roads, &c., on the construction and maintenance of the suburban lines of railway both before and since their purchase by the Government, and on the Port of Melbourne,* since the 1st January 1877. The following table gives the amounts expended by the State prior to and during 1879:—

GOVERNMENT EXPENDITURE ON PUBLIC WORKS. †

| Public Works. | Amount Expended. | | |
|--------------------------------------|------------------|--------------|------------|
| | Prior to 1879. | During 1879. | Total. |
| | £ | £ | £ |
| Victorian railways | 16,677,323 | 1,061,693 | 17,739,016 |
| Roads and bridges | 6,869,155 | 36,884 | 6,906,039 |
| Melbourne water supply (Yan Yean) | 1,524,358 | 40,065 | 1,564,423 |
| Other waterworks | 1,774,744 | 9,581 | 1,784,325 |
| Other public works | 8,164,937 | 356,547 | 8,521,484 |
| Total | 35,010,517 | 1,504,770 | 36,515,287 |

PART IV.—VITAL STATISTICS.

Registration system for births, deaths, and marriages.

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

Time of registration dealt with in compiling statistics.

271. It is found most convenient to deal with the records according to the periods in which the births, deaths, and marriages are registered, rather than those in which they occur. And—since the registration of a death should in all cases precede burial, and the registration of a marriage is simultaneous with the marriage itself—the registrations during any period, in the former case closely, and in the latter case entirely, agree with the actual transactions occurring therein. In the case of births, however, there is a wider margin, since the legal limit-

* See table following paragraph 224 ante.

† The Victorian Railway returns are brought down to the 31st December; those of the other works to the 30th June of the year named.

of registration extends to two months, and may in special cases extend to twelve months after the occurrence, the effect of which is, not so much that the numbers differ, since the births in one period may be expected to coincide approximately with those in another of similar duration, but that, in view of the length of time over which the registration is permitted to extend, and the natural tendency of some persons to postpone whatever is not absolutely necessary to be done on a particular day, a certain number of births escape registration altogether.

272. The marriages celebrated in Victoria during 1879 numbered 4,986, as against 5,092 in the previous year. The excess in favor of 1878 was thus 106. Marriages, 1879.

273. Fewer marriages took place in 1879 than in either 1878 or 1877. The number in 1879 was nearly equalled in each of the years 1873 to 1876, but it was considerably in excess of that in any year prior to 1873.* In the years 1878 and 1877 the marriages exceeded 5,000, but in the year under review they did not reach that number by 14. Marriages, 1879 and former years.

274. The number of marriages compared with the total population is generally called the marriage rate. This in Victoria has for years past been declining, and in 1879 was lower than in any previous year since the third from that in which the colony was founded. The following table gives the number of marriages and the number of persons married per 1,000 of the population during each of the eleven years ended with 1879 :— Marriage rate.

ANNUAL MARRIAGE RATE, 1869 TO 1879.

| Year. | Per 1,000 of the Mean Population. | |
|----------------------------|-----------------------------------|----------------------------|
| | Number of Marriages. | Number of Persons Married. |
| 1869 | 6·79 | 13·58 |
| 1870 | 6·67 | 13·34 |
| 1871 | 6·35 | 12·70 |
| 1872 | 6·30 | 12·60 |
| 1873 | 6·37 | 12·74 |
| 1874 | 6·17 | 12·34 |
| 1875 | 6·12 | 12·24 |
| 1876 | 5·96 | 11·92 |
| 1877 | 6·00 | 12·00 |
| 1878 | 5·86 | 11·72 |
| 1879 | 5·61 | 11·22 |
| Average of eleven years... | 6·18 | 12·36 |

275. It should be pointed out that the system of calculating marriage rates by finding the proportion that the marriages bear to the whole Marriage rates some times misleading.

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

population—although it is followed in all countries which compile vital statistics—is a reliable guide whereby to estimate the condition of a community only when applied to countries which are in a normal state as regards age, but is apt to mislead in regard to new countries in which, at various stages of their history, the age conditions are subject to be disturbed by accessions of population from without.* For it is evident that, if the number of persons at marriageable ages increases, marriages are likely to increase; but, if there is a falling-off in the number of such persons, marriages must inevitably decline. It is found in practice that the fact of females being few as compared with males has little effect on the frequency of marriage, for it seldom happens—except, perhaps, in communities existing in a very primitive state indeed—that a man who decides to enter the marriage state cannot procure a wife when he pleases. The tendency of the marriageable males to marry is no doubt affected by their prosperity as well as the other circumstances by which they are surrounded. Of the intensity of these circumstances a marriage rate affords an indication, but it, to be of much value in countries when the elements of the population are disturbed, should be calculated so as to show the proportion of marriages to such males, instead of to the total population. The reason why the latter is the method generally employed when the former gives results so much more reliable, is probably that the population, taken as a whole, can be estimated with tolerable correctness at almost any time, whilst the number of single men at marriageable ages can only be ascertained when a census is taken.

Proportion of marriages to population and single men.

276. The following is a statement of the population, the number of bachelors aged twenty and upwards, and widowers at all ages, and the number of marriages in the last four census years; also of the proportion of the marriages to the whole population and to the marriageable men at the same periods:—

PROPORTION OF MARRIAGES TO POPULATION AND TO MARRIAGEABLE MEN.

| Year of Census. | Population. | Bachelors aged 20 and upwards, and Widowers at all ages. | Marriages. | Proportion of Marriages. | |
|-----------------|-------------|----------------------------------------------------------|------------|--------------------------|-----------------------------------|
| | | | | Per 1,000 of Population. | Per 1,000 Bachelors and Widowers. |
| 1854 | 267,371 | 70,865 | 3,765 | 14·08 | 53·13 |
| 1857 | 430,347 | 95,427 | 4,524 | 10·51 | 47·41 |
| 1861 | 541,012 | 106,940 | 4,434 | 8·20 | 41·46 |
| 1871 | 738,725 | 89,921 | 4,693 | 6·35 | 52·19 |

Marriage rates at different periods compared.

277. The last column but one, which gives the marriage rate calculated according to the principle generally adopted, shows a very

* For some idea of the extent of these disturbances, see paragraph 53 *ante*.

considerable decrease at each period as compared with the previous one, and a reference to a former table will show a still further decline for the year 1879, in which only 5·61 marriages took place per 1,000 persons living. A very different state of things is, however, indicated in the last column, in which the marriage rate, calculated according to the more correct principle, shows some decline, it is true, between the first and second periods and the second and third periods, but a revival between the third and last periods to nearly the same rate as that which prevailed at the first period, which, being that of the most exciting time of the gold discoveries, was one during which marriage was often entered upon most recklessly.

278. It is thus clearly proved that, at the date of the last census, the true marriage rate was not only not declining, but had increased greatly. There is reason to believe that the census to be taken next year will show a smaller number of marriageable men than there were at that period; but, as the marriages have maintained their numbers, it will follow that, although a comparison of the marriages with the whole population may cause an impression that the tendency to marry is decreasing, a similar comparison with the number of single males at marriageable ages will prove that this is not the case, but, on the contrary, that such tendency is as great as, if not greater than, it was at any former period.

Tendency to marriage not declining.

279. The following table gives the marriage rates of the various Australasian colonies for each year from 1868 to 1878, except Western Australia, for which colony it is given for the last seven of those years:—

Marriage rates in Australasian colonies.

MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1868 TO 1878.*

| Year. | Number of Marriages † per 1,000 of Mean Populations. | | | | | | |
|-----------|------------------------------------------------------|------------------|-------------|------------------|--------------------|-----------|--------------|
| | Victoria. | New South Wales. | Queensland. | South Australia. | Western Australia. | Tasmania. | New Zealand. |
| 1868 ... | 6·99 | 8·17 | 8·33 | 7·37 | ... | 6·57 | 9·35 |
| 1869 ... | 6·79 | 7·98 | 8·31 | 6·78 | ... | 6·44 | 8·32 |
| 1870 ... | 6·67 | 7·79 | 7·80 | 6·90 | ... | 6·62 | 7·62 |
| 1871 ... | 6·35 | 7·73 | 8·06 | 6·77 | ... | 5·90 | 7·15 |
| 1872 ... | 6·30 | 7·42 | 8·70 | 7·20 | 5·56 | 6·17 | 6·85 |
| 1873 ... | 6·37 | 7·97 | 9·66 | 8·00 | 6·25 | 6·36 | 7·91 |
| 1874 ... | 6·17 | 7·59 | 8·62 | 8·00 | 6·96 | 6·83 | 8·87 |
| 1875 ... | 6·12 | 7·73 | 8·63 | 8·01 | 7·26 | 6·63 | 8·94 |
| 1876 ... | 5·96 | 7·49 | 7·57 | 8·49 | 7·07 | 7·13 | 8·25 |
| 1877 ... | 6·00 | 7·73 | 7·57 | 8·66 | 6·38 | 7·79 | 7·63 |
| 1878 ... | 5·86 | 7·84 | 6·98 | 9·47 | 6·50 | 7·96 | 8·03 |
| Means ... | 6·33 | 7·77 | 8·20 | 7·79 | 6·57 | 6·76 | 8·08 |

* For the number of marriages in the various colonies during the seven years ended with 1879, see General Summary of Australasian Statistics (third folding sheet) ante.

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

Colonies in which marriage rate is increasing, and contrary.

280. It will be observed that these rates are calculated upon the total population, according to which principle the marriage rate in Victoria declined with considerable steadiness from 1868 to 1876; and although a slight revival took place in 1877, this was not sustained in 1878. In New South Wales the marriage rate, although not so high in the last year of the period as in the first, was steadier throughout than the rate in any other colony. In South Australia and Tasmania the marriage rates have been increasing for years past, and in both the maximum during eleven years was attained in 1878. These, moreover, are the only colonies—with the exception of New South Wales—which had in 1878 rates above the average of the eleven-year period. In Queensland the rate has decreased rapidly since 1873, and in Western Australia and New Zealand it declined from 1875 to 1877. In the two last-named colonies, however, there was a slight revival in 1878. The minimum, during the eleven years, occurred in South Australia, Tasmania, and New Zealand in 1871; in New South Wales and Western Australia (the latter given for six years only) in 1872; and in Victoria and Queensland in 1878.

Order of colonies in respect to marriage rates.

281. The following is the order of the colonies in reference to their respective marriage rates in the last year shown in the table, and according to the average of the whole period of eleven years. It will be noticed that Victoria is at the bottom of both lists; also that the positions of New Zealand, New South Wales, and Western Australia have not varied, but that whilst Queensland, which stood first according to the average of eleven years, fell to the fifth place in 1878, South Australia, which stood third, and Tasmania, which stood fifth according to the average of the period, rose respectively to the first and third places in 1878:—

ORDER OF COLONIES IN REFERENCE TO MARRIAGE RATES.

| Order in 1878. | Order in a Series of Years. |
|-----------------------|-----------------------------|
| 1. South Australia. | 1. Queensland. |
| 2. New Zealand. | 2. New Zealand. |
| 3. Tasmania. | 3. South Australia. |
| 4. New South Wales. | 4. New South Wales. |
| 5. Queensland. | 5. Tasmania. |
| 6. Western Australia. | 6. Western Australia. |
| 7. Victoria. | 7. Victoria. |

Rural life promotes marriage.

282. It may be mentioned that, other things being equal, a rural life tends more to the promotion of marriage than a town one, and the high marriage rates in South Australia, New Zealand, and Tasmania may no doubt be partly due to their being agricultural communities; but there is also little doubt that the high rates in the first and second—the latter especially—are also to be attributed to the

marriageable class being swelled each year by a large number of adult immigrants, to which cause New South Wales also probably owes its position on the list.* Neither in that colony nor in Queensland, where the immigration has of late fallen off, and with it the marriage rate, nor in Western Australia, are agricultural pursuits followed to so large an extent as in Victoria; the low marriage rate in which can only be explained upon the assumption, for which there are good grounds, that, in proportion to the whole population, single men are more numerous in every one of the other colonies than they are here.

283. The marriage rate in 1878 of the colonies situated on the Australian continent, taken as a whole, as also of those colonies with the addition of Tasmania and New Zealand, was greater than in the two previous years. These rates are, however, below the average of the last six years, as will be seen by the following table:—

Marriage rates in Australia and Australasia.

MARRIAGE RATES IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1878.

| 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 |
| Means | 7·10 | 7·28 |

284. Returns of the births, deaths, and marriages are obtainable for but few British colonies outside of Australasia. The following are the marriage rates in those colonies—which it is to be regretted are, for the most part, of only minor importance—for which such particulars have come to hand, or can be gathered from their official reports. The low rate in Barbadoes is explained by the fact that the negro population as a rule ignore the marriage ceremony. The same circumstance, to a greater or less extent, doubtless also affects the marriage rate in Trinidad, and perhaps also in the Mauritius, although the low marriage rate in the latter would be, to a certain extent, accounted for by the fact that the large imported Cooly population is for the most part comprised of males, only a few females being brought in each ship:—

Marriage rates in certain British possessions.

* For number of immigrants and emigrants in each Australasian colony during the six years ended with 1878, see paragraph 98 *ante*.

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

MARRIAGE RATES IN CERTAIN BRITISH POSSESSIONS.

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

Marriage rates in European countries.

285. The following table gives for each of the eleven years ended with 1877 a statement of the marriage rates in British and such Foreign countries as the information is available for. The calculations have been made chiefly from figures found in the reports of the Registrars-General of England, Scotland, and Ireland :—

MARRIAGE RATES IN EUROPEAN COUNTRIES, 1867 to 1877.

| Year. | Number of Marriages * per 1,000 of Mean Populations. | | | | | | | | | | | | | |
|----------|------------------------------------------------------|-----------|-----------|----------|---------|----------|----------|----------|----------------|----------|------------------|---------|--------|---------|
| | England and Wales. | Scotland. | Ireland.† | Denmark. | Sweden. | Austria. | Hungary. | Prussia. | German Empire. | Belgium. | The Netherlands. | France. | Spain. | Italy.‡ |
| 1867 ... | 8.3 | 7.0 | 5.4 | 7.7 | 6.1 | 8.9 | 10.4 | 9.3 | ... | 7.8 | 8.4 | 7.9 | 7.1 | 6.7 |
| 1868 ... | 8.1 | 6.7 | 5.1 | 7.3 | 5.5 | 9.3 | 13.7 | 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 | 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 | 7.4 | ... | 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 | 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 | 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 | 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 | 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 | 9.1 | 7.3 | 8.3 | 8.4 | ... | 8.4 |
| 1876 ... | 8.4 | 7.5 | 5.0 | 8.5 | 7.1 | 8.2 | 9.9 | 8.6 | 8.5 | 7.2 | 8.2 | 7.9 | ... | 8.1 |
| 1877 ... | 7.9 | 7.2 | 4.6 | 8.1 | 6.9 | 7.4 | ... | 8.0 | 8.0 | 6.9 | 8.0 | 7.6 | ... | 6.8 |
| Means | 8.3 | 7.3 | 5.0 | 7.8 | 6.6 | 9.0 | 10.9 | 8.9 | 9.4 | 7.4 | 8.1 | 8.0 | 7.0 | 7.5 |

Low European marriage rate in 1877.

286. It will be observed that the marriage rates in all the European countries were comparatively low in the last year given. In Denmark, Sweden, and the Netherlands alone was the rate in that year above the average, but even in those countries it was lower than in the year immediately preceding it. Moreover, in England, Austria, and Belgium, the rate in 1877 was absolutely the lowest; in Italy the lowest with one exception; and in Ireland, Prussia, and France, the lowest

* 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 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 11 years.

with two exceptions recorded during the whole period of eleven years. It may be remarked that in England the marriage rate was lower in 1877 than in any year since 1847.

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

Australasian and European marriage rates compared.

288. The following, according to the reports of the Registrar-General of England, is the marriage rate of the United Kingdom during the seven years ended with 1877. 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 lower in 1877 than in any previous year given :—

Marriage rate in United Kingdom.

MARRIAGE RATE IN THE UNITED KINGDOM, 1871 TO 1877.

| | | Marriages per 1,000 of the Population. | | | | Marriages per 1,000 of the Population. | |
|------|-----|----------------------------------------|------|------|------|----------------------------------------|------|
| 1871 | ... | ... | 8·21 | 1876 | ... | ... | 7·70 |
| 1872 | ... | ... | 7·98 | 1877 | ... | ... | 7·32 |
| 1873 | ... | ... | 8·03 | | | | — |
| 1874 | ... | ... | 7·79 | | Mean | ... | 7·81 |
| 1875 | ... | ... | 7·67 | | | | — |

289. Although, as has been already stated,† rural rather than urban life tends to the promotion of marriage, it happens that, since the marriage ceremony is generally performed in towns whatever may be the ordinary residence of the persons marrying, the marriage rate recorded there is much higher than that in the country. In the year under review and the previous one it was higher in Melbourne and suburbs than in extra-metropolitan towns, which is contrary to the experience of the previous four years, in which the rate in the latter had been the greater. The marriages celebrated in 1879 in metropolitan and extra-metropolitan towns, and in country districts, together with the estimated mean populations of such divisions, were as follow :—

Marriage rates in town and country.

* See footnote (†) to table following paragraph 285 ante.

† See paragraph 282 ante.

MARRIAGES IN URBAN AND COUNTRY DISTRICTS, 1879.

| Districts. | Estimated Mean Population. | Marriages, 1879. | |
|-----------------------------------------|----------------------------|------------------|--------------------------------------|
| | | Total Number. | Number per 1,000 of Mean Population. |
| Melbourne and suburbs | 265,000 | 2,350 | 8·87 |
| Towns outside Melbourne and suburbs ... | 194,965 | 1,651 | 8·47 |
| Country districts | 428,535 | 985 | 2·30 |
| Total | 888,500 | 4,986 | 5·61 |

Marriages in each quarter.

290. Marriages in Victoria have generally been most numerous in the autumn and spring quarters, and least numerous in the summer and winter quarters. In 1879, however, the number in the spring was lower than that in any other quarter. The following table shows the number and percentage of marriages in each quarter of that year and the mean percentage in each quarter of the previous ten years :—

MARRIAGES IN EACH QUARTER.

| Seasons. | Quarter ended on the last day of— | Year 1879. | | Percentage in Ten Years: 1869 to 1878. |
|------------|-----------------------------------|----------------------|-------------|----------------------------------------|
| | | Number of Marriages. | Percentage. | |
| Summer ... | March | 1,257 | 25·21 | 24·42 |
| Autumn ... | June | 1,334 | 26·76 | 26·20 |
| Winter ... | September | 1,212 | 24·30 | 23·78 |
| Spring ... | December | 1,183 | 23·73 | 25·60 |
| | Year | 4,986 | 100·00 | 100·00 |

Former condition of persons married.

291. About four-fifths of the unions which take place are between bachelors and spinsters; and the next most numerous are generally those between widowers and spinsters, although they have sometimes been exceeded by marriages between bachelors and widows. Marriages between widowers and widows are generally somewhat less than a twentieth of the whole. The following are the number and percentage in each of these groups during 1879 and the percentage during the previous decennial period :—

FORMER CONDITION OF PERSONS MARRIED.

| Previous Condition. | Year 1879. | | Percentage in Ten Years: 1869 to 1878. |
|--------------------------------|----------------------|-------------|----------------------------------------|
| | Number of Marriages. | Percentage. | |
| Bachelors and spinsters | 4,034 | 80·91 | 80·26 |
| Bachelors and widows | 315 | 6·32 | 7·51 |
| Widowers and spinsters | 399 | 8·00 | 7·72 |
| Widowers and widows | 238 | 4·77 | 4·51 |
| Total | 4,986 | 100·00 | 100·00 |

292. 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. Nine divorced males and 6 divorced females were married in 1879. In one of these instances the divorced couple were reunited; all but one of the other 8 divorced males married spinsters, and all but one of the other 5 divorced females married bachelors. Divorced persons.

293. Persons whose wives or husbands have not been heard of for a period of seven years may marry again without rendering themselves liable to be prosecuted for bigamy; but such unions are subject to the serious disadvantage that the issue by the second marriage would be illegitimate, and the marriage itself void, if it should turn out that the first husband or wife were alive at the time thereof. Notwithstanding this disability, however, the provision is frequently taken advantage of, but, for obvious reasons, much oftener by the female sex than the male. Two of the former and 7 of the latter availed themselves of it in 1879: The males, both of whom married spinsters, had not heard of their former wives for 15 and 20 years respectively. Of the females, 4 married bachelors, and 3 widowers; 3 had not heard of their former husbands for 7 years, and the remainder had not heard of theirs for 8, 9, 10, and 14 years respectively. In the previous year, 3 deserted males and as many as 14 deserted females remarried. Deserted males and females remarrying are tabulated as widowers and widows, since it is only on the assumption that their former helpmate is dead that the law does not prohibit their contracting a fresh union. Deserted husbands and wives.

294. In 1879, 637 widowers and 553 widows re-entered the marriage state. During the last six years more widowers have remarried than widows. Formerly it was different. In the six years ended with 1873 the widowers re-entering the marriage state numbered 3,353 and the widows 3,529, and at earlier periods in the history of the colony the preponderance of remarriages of widows over those of widowers was even greater than this. Such a circumstance would be likely to happen only in a country in which females are much less numerous than males, and the reverse having been the case of late years affords indirect proof that the proportion of marriageable females to marriageable males in the population has increased. In England and Wales, during the twenty years ended with 1874, 48 per cent. more widowers remarried than widows, the number of the former being 490,912, that of the latter 332,428. The following is a statement of the number of widowers and widows who remarried in Victoria during each of the eleven years ended with 1879 :— Remarriages.

REMARRIAGES, 1869 TO 1879.

| Year. | Number of Remarriages of— | | Year. | Number of Remarriages of— | |
|----------|---------------------------|---------|-----------|---------------------------|---------|
| | Widowers. | Widows. | | Widowers. | Widows. |
| 1869 ... | 553 | 563 | 1876 ... | 678 | 623 |
| 1870 ... | 547 | 595 | 1877 ... | 666 | 600 |
| 1871 ... | 587 | 605 | 1878 ... | 634 | 585 |
| 1872 ... | 522 | 552 | 1879 ... | 637 | 553 |
| 1873 ... | 586 | 591 | | | |
| 1874 ... | 602 | 593 | Total ... | 6,626 | 6,443 |
| 1875 ... | 614 | 583 | | | |

Marriages of
Aborigines.

295. The marriages of 7 Aboriginal males with Aboriginal females are included in the returns of 1879. The parties to 3 of these marriages were stated to be half-caste. The Aborigines who desire to enter the marriage state now generally do so according to some form recognized by law. Mr. R. Brough Smyth, in his work upon the Aborigines,* says that before the advent of Europeans there was no such thing as marriage in the proper sense of the word amongst the Australians. The acts which preceded matrimony were certainly not entitled to be regarded as rites. Men obtained wives by a convenient system of exchange, by conquest sometimes, and sometimes a woman was stolen.

Marriages of
Chinese.

296. Eleven Chinese males were married in Victoria in the year 1879, as against 13 in 1878, 20 in 1877, 14 in 1876, and 20 in 1875. During the thirteen years prior to the year under review, 230 Chinamen were married in Victoria, or an average of 18 per annum. The following table shows the nationalities of the women who formed matrimonial unions with Chinese during that period, also during the year under review:—

NATIONALITY OF WOMEN MARRYING CHINESE MALES, 1866 TO 1879.

| Birthplace of Wives. | Number of Marriages of Chinese Males. | | |
|-------------------------------|---------------------------------------|------------|-------------------------|
| | Thirteen Years: 1866 to 1878. | Year 1879. | Total: 1866 to 1879. |
| Victoria | 91 | 8 | 99 |
| Other Australian colonies ... | 42 | ... | 42 |
| England | 48 | 1 | 49 |
| Scotland | 14 | 1 | 15 |
| Ireland | 22 | 1 | 23 |
| Other British possessions ... | 1 | ... | 1 |
| France | 1 | ... | 1 |
| Germany | 2 | ... | 2 |
| Spain | 1 | ... | 1 |
| The United States | 1 | ... | 1 |
| China | 4 | ... | 4 |
| At sea | 3 | ... | 3 |
| Total | 230 | 11 | 241 |

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

297. The marriage ceremony in Victoria may be performed either by the registered clergy of any religious sect or by lay registrars.* In 1879 rather more than 89 per cent. of the marriages were celebrated according to the former, and nearly 11 per cent. according to the latter system. Lay marriages are becoming more and more popular. The number performed during 1879 exceeded by 147 the number in 1878, and was still greater than that in any previous year. The following table gives a statement of the number and percentage of marriages celebrated by each religious sect and by lay registrars during 1879, and during the previous ten years:—

MARRIAGES BY DIFFERENT DENOMINATIONS.

| Marriages performed according to the usages of the— | Marriages celebrated in— | | | |
|-----------------------------------------------------|--------------------------|-------------|--------------------------|-------------|
| | Year 1879. | | Ten Years: 1869 to 1878. | |
| | Number. | Percentage. | Number. | Percentage. |
| Church of England | 1,237 | 24·81 | 12,073 | 24·65 |
| Presbyterians | 974 | 19·53 | 10,057 | 20·53 |
| Wesleyans | 910 | 18·25 | 8,676 | 17·71 |
| Independents | 224 | 4·49 | 2,677 | 5·47 |
| Baptists | 193 | 3·88 | 1,727 | 3·53 |
| Lutherans | 49 | ·98 | 518 | 1·06 |
| Unitarians | ... | ... | 11 | ·02 |
| Society of Friends | 1 | ·02 | 4 | ·01 |
| Calvinistic Methodists | 7 | ·14 | 98 | ·20 |
| Roman Catholic Church | 776 | 15·57 | 9,104 | 18·59 |
| Jews | 27 | ·54 | 207 | ·42 |
| Other sects | 57 | 1·14 | 498 | 1·02 |
| Lay registrars | 531 | 10·65 | 3,329 | 6·79 |
| Total | 4,986 | 100·00 | 48,979 | 100·00 |

Marriages by different sects.

298. 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.

Duplicate marriages.

299. Of the 7 Aboriginal marriages which took place in 1879, 3 were solemnized according to the rites of the Moravians, 2 according to those of the Independents, 1 according to those of the Church of England, and 1 according to those of the Free Church of England.

Sects of Aboriginals married.

* The following remarks upon lay marriages are by the late Registrar-General of England, Major George Graham:—"Marriage by civil contract has been in force in England and Wales during the last 40 years; and since 1841 nearly 800,000 persons have been married in register offices, out of which number more than 400,000 have been married during the last 11 years. Attempts are sometimes made to persuade persons who have been duly married in accordance with all the legal forms at the register office that such marriages are improper, and that the parties should not live together as man and wife until a religious ceremony according to the rites of the Established Church has been gone through. I consider this to be most mischievous, tending as it does to disturb and unsettle the minds of hundreds of thousands of persons, who, availing themselves of the privilege granted by the Legislature in 1837, have been validly married in the register offices. It is to be regretted that any clergyman of the Established Church should be found to tell his parishioners, married according to the law of the land, that they are not properly married, as that implies that they are living in a state of fornication, and that their children are illegitimate. And as the civil is the only legal form of marriage in several great Christian States, the assertion that it is 'only suited to infidels' is still more to be regretted."—See 38th Annual Report of the Registrar-General of Births, Deaths, and Marriages in England, page xv. London: Eyre and Spottiswoode, 1877.

Sects of
Chinese
married.

300. Of the marriages of Chinese in 1879, 5 were celebrated according to the rites of the Church of England, 3 according to those of the Free Church of England, 1 according to those of the Presbyterian, and 1 according to those of the Wesleyan Church, and 1 was performed by a lay registrar.

Signing with
marks.

301. 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 1879, the proportion of those who signed with marks to the total numbers married being also shown:—

SIGNING MARRIAGE REGISTER WITH MARKS, 1879.

| Persons Married. | Numbers Married. | Signing with Marks. | |
|--------------------|------------------|---------------------|------------------------------|
| | | Total Number. | Number in every 100 Married. |
| Bridegrooms | 4,986 | 190 | 3·81 |
| Brides | 4,986 | 279 | 5·60 |
| Mean | 4,986 | 235 | 4·71 |

Increased
numbers
signing in
writing.

302. 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, but with this exception a constant improvement has been apparent from year to year; each year, as compared with its predecessor, showing a smaller proportion of persons signing with marks. The following are the proportions for the last seven years:—

NUMBERS SIGNING WITH MARKS PER 100 MARRIED, 1873 TO 1879.

| 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 |

Signing with
marks, 1853
to 1872.

303. 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 |

304. 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 1879 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.

| Marriages performed according to the usages of the— | Number Signing with Marks in every 100 Married. | | | | | |
|-----------------------------------------------------|-------------------------------------------------|--------|-------|---------------------------|--------|-------|
| | Year 1879. | | | Ten Years : 1869 to 1878. | | |
| | Men. | Women. | Mean. | Men. | Women. | Mean. |
| Church of England ... | 3·72 | 4·68 | 4·20 | 4·79 | 7·28 | 6·03 |
| Presbyterians ... | 2·47 | 3·38 | 2·92 | 4·14 | 7·33 | 5·73 |
| Wesleyans ... | 3·63 | 3·52 | 3·57 | 4·47 | 6·37 | 5·42 |
| Independents ... | 3·57 | 2·68 | 3·12 | 3·81 | 7·70 | 5·75 |
| Baptists ... | 2·07 | 2·60 | 2·33 | 3·82 | 6·08 | 4·95 |
| Lutherans ... | ... | 4·08 | 2·04 | 1·93 | 5·02 | 3·47 |
| Calvinistic Methodists ... | ... | ... | ... | ... | 8·16 | 4·08 |
| Roman Catholics ... | 6·06 | 10·31 | 8·18 | 11·94 | 18·85 | 15·39 |
| Jews ... | ... | ... | ... | 1·93 | 2·90 | 2·41 |
| Other sects ... | 8·77 | 3·51 | 6·14 | 6·22 | 4·82 | 5·52 |
| Lay registrars ... | 4·33 | 11·49 | 7·91 | 6·91 | 14·69 | 10·80 |
| Total ... | 3·81 | 5·60 | 4·71 | 5·95 | 9·70 | 7·83 |

Signing with marks in each sect.

305. It will be observed that the proportion of those signing with marks is far higher amongst marriages according to the rites of the Roman Catholic Church than amongst those celebrated by any other religious sect, but that the numbers in 1879 show a very considerable improvement as compared with the previous ten years. The proportion amongst civil marriages is usually somewhat lower than amongst marriages by Roman Catholics, and the improvement amongst the former in 1879, on comparing with former years, is not nearly so great as amongst the latter.

Roman Catholic and civil marriages.

306. In the 11 marriages by Unitarians which took place in the eleven years ended with 1879, 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 105 marriages by Calvinistic Methodists all the males signed in writing, but 8 of the females signed with marks. In the 234 marriages of Jews only 10 persons signed with marks.

Marriages by Unitarians, Calvinists, and Jews.

307. The marriages in which marks instead of writing were made use of in 1879 numbered 412, but in only 57 of these, or less than a seventh, did both parties so sign. In the 355 other instances either the husband

Cases of both signing with marks.

or the wife signed in writing. Thus, whereas the marriages in which one or both could not write amounted to about a twelfth of the whole, in the case of only about 1 in every 87 marriages could neither party write.

Signatures of
Aborigines.

308. In the case of the 7 marriages of Aborigines celebrated in 1879, all the females and all but three of the males signed the marriage register in writing.

Signing with
marks in
Austral-
asian colo-
nies.

309. A statement of the numbers who sign the marriage register with marks is published in all the Australasian colonies except Western Australia and Tasmania, and from the figures given the following percentages for 1877 and 1878 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 AND 1878.

| 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 |
| 2. New Zealand ... | 1877 | 3·95 | 8·54 | 6·25 |
| | 1878 | 2·96 | 6·85 | 4·90 |
| 3. South Australia ... | 1877 | 6·14 | 7·89 | 7·01 |
| | 1878 | 5·09 | 7·00 | 6·04 |
| 4. New South Wales ... | 1877 | 8·45 | 11·07 | 9·76 |
| | 1878 | 7·71 | 8·52 | 8·11 |
| 5. Queensland ... | 1877 | 7·78 | 14·15 | 10·97 |
| | 1878 | 6·23 | 13·30 | 9·76 |

Victoria the
least illite-
rate colony.

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

Signing with
marks in
the United
Kingdom.

311. No returns are at hand showing the manner in which the marriage registers are signed in any countries except the colonies just named and the United Kingdom. The following, taken from the Registrar-General's Reports, are the proportions using marks in England, Scotland, and Ireland. From the figures it would seem

that Scotland is before and Ireland is behind England in point of adult education, but that all are much behind even the most backward of the Australasian colonies. In England, in 1876, the greatest proficiency amongst men was attained in the London district, where the percentage signing with marks was only 8·1; but even this shows more illiteracy amongst males than that found to exist in 1878 in any of the colonies named :—

SIGNING WITH MARKS IN THE UNITED KINGDOM.

| Country. | Year. | Number Signing with Marks to every 100 Married. | | |
|-----------------------|-------|-------------------------------------------------|--------|-------|
| | | Men. | Women. | Mean. |
| England and Wales ... | 1877 | 15·3 | 20·9 | 18·1 |
| Scotland ... | 1874 | 9·1 | 18·0 | 13·5 |
| Ireland ... | 1878 | 28·5 | 33·7 | 31·1 |

312. The age of both bride and bridegroom was specified in the case of all but 78 of the 4,986 marriages which took place in 1879. Ages of persons married
 In 67 of the defective entries the age of neither party was given; in 5 cases the age of the husband was stated, not that of the wife; and in 6 instances the age of the wife was given, not that of the husband. The following table shows the ages of the husbands and of the wives in combination :—

AGES OF PERSONS MARRIED, 1879.

| Ages of Husbands. | Ages of Wives. | | | | | | | | | | | | | | | | Total Husbands. | | | | |
|-------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|-----------|-----------|-----------|--------------|
| | 13 to 14. | 14 to 15. | 15 to 16. | 16 to 17. | 17 to 18. | 18 to 19. | 19 to 20. | 20 to 21. | 21 to 25. | 25 to 30. | 30 to 35. | 35 to 40. | 40 to 45. | 45 to 50. | 50 to 55. | 55 to 60. | | 60 to 65. | 65 to 70. | 70 to 75. | Unspecified. |
| 17 to 18 years... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| 18 to 19 " | ... | ... | ... | 1 | 2 | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 |
| 19 to 20 " | ... | ... | 1 | 1 | 8 | 4 | 10 | 6 | 10 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 42 |
| 20 to 21 " | ... | ... | ... | 2 | 5 | 16 | 17 | 18 | 26 | 3 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 88 |
| 21 to 25 " | 1 | ... | 1 | 20 | 77 | 126 | 178 | 195 | 851 | 119 | 8 | 3 | 1 | ... | ... | ... | ... | ... | ... | ... | 1580 |
| 25 to 30 " | ... | ... | 2 | 13 | 36 | 67 | 107 | 137 | 716 | 256 | 40 | 8 | 4 | ... | ... | ... | ... | ... | ... | 2 | 1388 |
| 30 to 35 " | ... | 1 | 1 | 6 | 14 | 30 | 31 | 54 | 268 | 179 | 62 | 24 | 3 | 1 | ... | ... | 1 | ... | ... | 1 | 676 |
| 35 to 40 " | ... | ... | ... | 2 | 6 | 20 | 15 | 29 | 113 | 114 | 44 | 52 | 23 | 4 | 1 | ... | ... | ... | ... | 1 | 424 |
| 40 to 45 " | ... | ... | ... | ... | 2 | 9 | 9 | 7 | 40 | 54 | 53 | 36 | 32 | 8 | 6 | 1 | ... | ... | ... | ... | 257 |
| 45 to 50 " | ... | ... | ... | ... | 1 | 1 | 3 | 4 | 26 | 29 | 40 | 42 | 32 | 27 | 5 | ... | ... | ... | ... | 1 | 211 |
| 50 to 55 " | ... | ... | ... | ... | ... | ... | ... | 1 | 8 | 10 | 35 | 24 | 20 | 18 | 13 | 4 | ... | ... | ... | ... | 133 |
| 55 to 60 " | ... | ... | ... | ... | ... | ... | ... | 1 | 2 | 6 | 8 | 7 | 8 | 7 | 6 | 6 | 1 | ... | ... | ... | 52 |
| 60 to 65 " | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 4 | 3 | 4 | 6 | 8 | 3 | 3 | ... | ... | ... | 33 |
| 65 to 70 " | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 1 | ... | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | ... | 13 |
| 70 to 75 " | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 3 | ... | 1 | ... | ... | ... | 1 | 6 |
| 75 to 80 " | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | ... | 2 |
| 80 to 85 " | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 1 |
| Unspecified | ... | ... | ... | ... | ... | 2 | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 67 | 73 |
| Total wives... | 1 | 1 | 5 | 46 | 151 | 275 | 372 | 455 | 2063 | 776 | 295 | 201 | 129 | 76 | 42 | 16 | 7 | 1 | 2 | 72 | 4986 |

NOTE.—This table may be read thus :—Two men between 40 and 45 married girls between 17 and 18; a woman between 60 and 65 married a man between 30 and 35, &c.

Relative
ages of
husband
and wife.

313. An examination of the above table will show that in 1,332 instances, or 27 per cent. of the whole, both parties to the marriage were about the same age; in 317 instances, or 6 per cent. of the whole, the wife was older than the husband; and in 3,259 instances, or 66 per cent. of the whole, the husband was older than the wife. These proportions differ but slightly from those in the previous two years.

Marriages
of minors.

314. 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 1879 had not reached their eighteenth year, two of the females had not reached their fifteenth, and of these one had not reached her fourteenth year; as many as 137 of the males, or 1 in every 36, and no fewer than 1,306 of the females, or more than a fourth, had not attained the full age of 21 years. These proportions are higher than similar ones for the previous ten years, by which it would at first sight appear as if the tendency to marry under age were greater than it was formerly; but the increase may, perhaps, be due to the larger proportion that persons just merging into manhood and womanhood bear to the whole number at marriageable ages rather than to any change in the habits of the people.

Marriages of
minors in
Victoria and
England.

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

MARRIAGES OF MINORS IN VICTORIA AND ENGLAND AND WALES.

| Persons Married. | In every 100 Marriages, Numbers under 21 Years of Age. | | |
|------------------|-----------------------------------------------------------|-----------------------------|-----------------------------|
| | In Victoria. | | In England and Wales. |
| | Year 1879. | Ten Years: 1869 to 1878. | Ten Years: 1868 to 1877. |
| Bridegrooms ... | 2·75 | 2·21 | 7·90 |
| Brides ... | 26·19 | 28·78 | 21·91 |
| Mean ... | 14·47 | 15·50 | 14·90 |

316. The births registered in Victoria during 1879 numbered 26,839, as against 26,581 in 1878. The increase in the year under review, as compared with the previous one, was thus 258.

317. The births in 1879 were not so numerous as those in 1868 or in the four years 1870 to 1873, but, with these exceptions, they exceeded the number in any other year.*

318. The birth rate has been decreasing steadily for years past, and in 1879 was lower than it was in any year of the previous decenniad. The following are the figures for the eleven years:—

ANNUAL BIRTH RATE, 1869 TO 1879.

| | | | | | | Births per 1,000 of Mean Population. |
|----------------------|-----|-----|-----|-----|-----|-----------------------------------------|
| 1869 | ... | ... | ... | ... | ... | 37·36 |
| 1870 | ... | ... | ... | ... | ... | 38·25 |
| 1871 | ... | ... | ... | ... | ... | 37·07 |
| 1872 | ... | ... | ... | ... | ... | 35·95 |
| 1873 | ... | ... | ... | ... | ... | 36·01 |
| 1874 | ... | ... | ... | ... | ... | 33·56 |
| 1875 | ... | ... | ... | ... | ... | 32·78 |
| 1876 | ... | ... | ... | ... | ... | 32·23 |
| 1877 | ... | ... | ... | ... | ... | 30·60 |
| 1878 | ... | ... | ... | ... | ... | 30·59 |
| 1879 | ... | ... | ... | ... | ... | 30·21 |
| Mean of eleven years | | | | | ... | 33·84 |

319. Calculations affecting the birth rate, based upon a comparison of the number of births with the total population, are, like the marriage rates, apt to mislead, unless the population is in a normal condition in regard to age. It must be quite evident that, if there is not a sufficient proportion of women at the fruitful or child-bearing ages in a community, the birth rate cannot be high, but that an excess of women at such ages would be likely to cause a high birth rate. The frequency of marriages also raises the birth rate; but there are in some countries circumstances owing to which, notwithstanding the proportion of women of fruitful age is quite up to the average and marriages are numerous, the birth rate is still low. The census of 1881 may be expected to throw light upon this as well as on many other social questions of the deepest interest.

320. Complete returns of the births in the Australasian colonies are available to the end of 1878, 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 1868 to 1878, or as many years between those periods as the figures are available for:—

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

BIRTH RATES IN AUSTRALASIAN COLONIES, 1868 TO 1878.*

| Year. | Number of Births per 1,000 of Mean Populations. | | | | | | |
|-----------|-------------------------------------------------|------------------|-------------|------------------|--------------------|-----------|--------------|
| | Victoria. | New South Wales. | Queensland. | South Australia. | Western Australia. | Tasmania. | New Zealand. |
| 1868 ... | 40·59 | 40·43 | 43·03 | 41·51 | ... | 30·03 | 42·14 |
| 1869 ... | 37·36 | 40·41 | 42·83 | 39·03 | ... | 28·27 | 41·90 |
| 1870 ... | 38·25 | 39·76 | 43·51 | 38·48 | ... | 30·18 | 42·32 |
| 1871 ... | 37·07 | 39·42 | 43·25 | 38·34 | ... | 30·16 | 40·64 |
| 1872 ... | 35·95 | 38·27 | 40·70 | 37·60 | 32·42 | 29·44 | 39·50 |
| 1873 ... | 36·01 | 39·01 | 40·82 | 36·42 | 31·43 | 29·43 | 39·00 |
| 1874 ... | 33·56 | 38·75 | 41·11 | 38·22 | 33·71 | 29·72 | 40·27 |
| 1875 ... | 32·78 | 37·83 | 38·90 | 35·70 | 28·72 | 29·88 | 40·23 |
| 1876 ... | 32·23 | 37·69 | 37·48 | 37·71 | 33·98 | 30·11 | 41·73 |
| 1877 ... | 30·60 | 36·92 | 36·75 | 37·36 | 33·07 | 30·21 | 41·28 |
| 1878 ... | 30·59 | 37·36 | 35·77 | 38·23 | 31·11 | 32·27 | 42·14 |
| Means ... | 35·00 | 38·71 | 40·38 | 38·06 | 32·06 | 29·98 | 41·02 |

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

321. The birth rates in Victoria and New South Wales have been declining with little intermission throughout the whole, and the birth rate in Queensland during the latter half, of the period of eleven years. The rates in South Australia and Western Australia fluctuate considerably; in 1878 the rate in the former colony was above, and that in the latter was below the average. The colonies in which the birth rate has shown signs of increase of late years are Tasmania and New Zealand, in both of which the rates in the last year were in excess of the average. The rate in the former colony has been steadily increasing during the last six years named in the table; and that in the latter not quite so evenly during the same period. A glance at the table will show that, in all the colonies except these two, higher rates prevailed in the earlier than in the latter years of the period.

Order of colonies in respect to birth rates.

322. The following is the order of the colonies in reference to their respective birth rates in the last year shown in the table and according to the average of the whole period of eleven years. It will be observed that Victoria is at the bottom of the list for 1878 and stands fifth in that for the eleven-year period series:—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO BIRTH RATES.

Order in 1878.

1. New Zealand.
2. South Australia.
3. New South Wales.
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 seven years ended with 1879, see General Summary of Australasian Statistics (third folding sheet) *ante*.

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

Birth rate in Australia and Australasia.

BIRTH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1878.

| 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 |
| Means | 35·46 | 36·07 |

324. 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 a single year. It is to be regretted that the names of scarcely any of the larger colonies appear upon the list :—

Birth rates in British possessions.

BIRTH RATES IN CERTAIN BRITISH POSSESSIONS.

| Colonies. | Years. | Number of Births per 1,000 of the Population. |
|-----------------------|---------|-----------------------------------------------|
| Ceylon | 1867-76 | 27·7 |
| Hong Kong | 1875 | 13·8 |
| Mauritius | 1876-7 | 36·5 |
| Seychelles | 1875-7 | 37·4 |
| Bermudas | 1871-5 | 37·8 |
| British Guiana | 1877 | 33·4 |
| West Indies— | | |
| Bahamas | 1874-5 | 39·0 |
| St. Vincent | 1872-6 | 46·0 |
| Barbadoes | 1872-7 | 42·9 |
| Grenada | 1871-5 | 45·2 |
| Antigua | 1875-6 | 40·4 |
| Montserrat | 1874-5 | 48·8 |
| Dominica | 1871-6 | 31·0 |
| Trinidad | 1876 | 35·2 |

325. A statement of the birth rates in British and certain Foreign countries for each of the eleven years ended with 1877 is given in the following table. The figures have been taken chiefly from the reports of the Registrars-General of England, Scotland, and Ireland :—

Birth rates in European countries.

* See paragraph 283 ante.

BIRTH RATES IN EUROPEAN COUNTRIES, 1867 TO 1877.

| Year. | Number of Births per 1,000 of Mean Populations. | | | | | | | | | | | | | |
|-----------|-------------------------------------------------|-----------|-----------|----------|---------|----------|----------|----------|----------------|----------|------------------|---------|--------|--------|
| | England and Wales. | Scotland. | Ireland.* | Denmark. | Sweden. | Austria. | Hungary. | Prussia. | German Empire. | Belgium. | The Netherlands. | France. | Spain. | Italy. |
| 1867 ... | 35·4 | 35·1 | 26·3 | 30·5 | 30·8 | 34·7 | 38·8 | 36·9 | ... | 32·1 | 35·2 | 26·2 | 37·3 | 36·5 |
| 1868 ... | 35·8 | 35·3 | 26·7 | 31·2 | 27·5 | 39·3 | 42·4 | 36·8 | ... | 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 | ... | 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 | ... | 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 | ... | 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 | 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 | 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 | 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 | 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 | 33·2 | 36·8 | 26·3 | ... | 39·0 |
| 1877 ... | 36·2 | 35·6 | 26·2 | 31·7 | 30·9 | 39·1 | ... | 39·8 | 40·3 | 32·3 | 36·3 | 25·6 | ... | 36·7 |
| Means ... | 35·6 | 35·1 | 26·9 | 30·9 | 29·9 | 39·5 | 42·5 | 38·5 | 40·1 | 32·2 | 35·7 | 25·6 | 35·7 | 36·7 |

Discrepancies between birth and marriage rates in European countries.

326. 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 four 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 strange 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.§

Australasian and European birth rates compared.

327. The birth rate of Victoria, taken over a series of years, is about equal to that of Scotland, lower than the rates of England, Spain, and Holland (which are about equal), Italy, and the Central European States, but higher than that of any of the other countries named in the last table. In the last two years, however, the Victorian birth rate was lower than that not only of the countries named, but also of Belgium, Denmark, and Sweden; and the only countries which had a smaller birth rate were Ireland and France. In four of the Australasian colonies, viz., Queensland, New Zealand, New South Wales, and South Australia, the rate is about equal to that in Central Europe—the rate

* 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 285 ante.

‡ See footnote (†) to table following paragraph 285 ante.

§ See table following paragraph 357 post.

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

328. According to the reports of the Registrar-General of England, the following is the birth rate of the United Kingdom during the seven years ended with 1877 :— Birth rate in United Kingdom.

BIRTH RATE IN THE UNITED KINGDOM, 1871 TO 1877.

| Births per 1,000 of the Population. | | | Births per 1,000 of the Population. | | |
|-------------------------------------|-----|------|-------------------------------------|-----|------|
| 1871 | ... | 35.0 | 1876 | ... | 34.9 |
| 1872 | ... | 34.4 | 1877 | ... | 34.5 |
| 1873 | ... | 34.1 | | | — |
| 1874 | ... | 34.5 | Mean | ... | 34.5 |
| 1875 | ... | 34.0 | | | — |

329. The following table shows the births and birth rates in the metropolis, the extra-metropolitan towns, and the country districts of Victoria during 1879 ; also the estimated population of such divisions about the middle of that year :— Birth rates in town and country, 1879.

BIRTHS IN URBAN AND COUNTRY DISTRICTS, 1879.

| Districts. | Estimated Mean Population. | Births, 1879. | |
|-------------------------------------|----------------------------|---------------|-------------------------------------|
| | | Total Number. | Number per 1,000 of the Population. |
| Melbourne and suburbs ... | 265,000 | 8,829 | 33.32 |
| Towns outside Melbourne and suburbs | 194,965 | 6,793 | 34.84 |
| Country districts ... | 428,535 | 11,217 | 26.18 |
| Total ... | 888,500 | 26,839 | 30.21 |

330. During the last seven years the birth rate of Melbourne and suburbs has not altered much, but the birth rates of the country districts have considerably diminished, whilst those of the extra-metropolitan towns fell off until 1877, but have slightly revived in the last two years. In 1873 the birth rate of the country districts was equal to that of the metropolis, whilst the birth rate of the extra-metropolitan towns was very much higher than either. In the year under review the metropolitan rate was much above that of the country districts, and was only slightly below that of the extra-metropolitan towns. The following table shows the birth rates in the three divisions during each of the last seven years :— Birth rates in town and country, 1873 to 1879.

BIRTH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 to 1879.

| Year. | Number of Births per 1,000 of the Population. | | | |
|----------|-----------------------------------------------|-----------------------------------------|--------------------|--------------------|
| | Melbourne and Suburbs. | Towns outside of Melbourne and Suburbs. | Country Districts. | Total of Victoria. |
| 1873 ... | 34·36 | 40·98 | 34·40 | 36·01 |
| 1874 ... | 32·98 | 39·82 | 30·57 | 33·56 |
| 1875 ... | 33·63 | 37·60 | 29·64 | 32·78 |
| 1876 ... | 33·20 | 38·23 | 28·69 | 32·23 |
| 1877 ... | 33·09 | 33·83 | 27·49 | 30·60 |
| 1878 ... | 33·67 | 34·17 | 26·96 | 30·59 |
| 1879 ... | 33·32 | 34·84 | 26·18 | 30·21 |

Birth rates in metropolitan sub-districts.

331. The following table shows the mean population, the number of births, and the birth rate during 1879; also, the birth rate during the octennial period, 1871 to 1878, in the different municipalities, &c., forming the component parts of the district of Melbourne and suburbs:—

BIRTH RATES IN MELBOURNE AND SUBURBS, 1871 TO 1879.

| Sub-districts. | Year 1879. | | | Eight Years: 1871 to 1878. |
|----------------------------------------|----------------------------|---------------|-------------------------------------|---------------------------------------------|
| | Estimated Mean Population. | Births. | | Annual Births per 1,000 of Mean Population. |
| | | Total Number. | Number per 1,000 of the Population. | |
| Melbourne City ... | 62,356 | 1,587 | 25·45 | 28·24 |
| Hotham Town ... | 15,636 | 617 | 39·46 | 33·54 |
| Fitzroy City ... | 19,163 | 791 | 41·28 | 34·09 |
| Collingwood City ... | 22,300 | 785 | 35·20 | 36·80 |
| Richmond Town ... | 20,949 | 772 | 36·85 | 36·51 |
| Brunswick Borough ... | 5,816 | 200 | 34·39 | 39·32 |
| Prahran City ... | 20,040 | 631 | 31·49 | 32·83 |
| Emerald Hill Town ... | 25,900 | 759 | 29·31 | 32·39 |
| Sandridge Borough ... | 7,945 | 317 | 39·90 | 38·79 |
| St. Kilda Borough ... | 10,283 | 298 | 28·98 | 29·38 |
| Brighton Borough ... | 4,650 | 137 | 29·46 | 32·23 |
| Essendon and Flemington Borough ... | 3,950 | 155 | 39·24 | 39·31 |
| Hawthorn Borough ... | 5,410 | 159 | 29·39 | 36·07 |
| Kew Borough ... | 3,800 | 97 | 25·52 | 27·29 |
| Footscray Borough ... | 5,500 | 229 | 41·64 | 47·07 |
| Williamstown Borough ... | 8,300 | 315 | 37·95 | 39·68 |
| Remainder of district ... | 17,363 | 398 | 22·92 | 26·74 |
| Hospitals, asylums, &c.* ... | 3,600 | 582 | 161·67 | 136·39 |
| Shipping in Hobson's Bay and river ... | 2,039 † | ... | ... | ... |
| Total ... | 265,000 | 8,829 | 33·32 | 33·87 |

Sub-districts with highest and lowest birth rates.

332. It will be observed that in Fitzroy and Footscray in 1879, and in Footscray alone, according to the average of the previous eight years, the birth rate was above 40 per 1,000; and that in Emerald Hill,

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

† Figures showing population of shipping at census of 2nd April 1871.

Brighton, and Hawthorn, in 1879, and in Melbourne, St. Kilda, Kew, and the "remainder of district," both in 1879 and the previous eight years, the rate was below 30 per 1,000. The rate in the last-named portion of Melbourne and suburbs was even lower than that in the rural districts of the colony.*

333. The birth rate in London, according to the average of the ten years 1867-76, was 35·8, which was only slightly higher than that of England and Wales during the same period. It was thus nearly 2 per 1,000 above that in Melbourne and suburbs.

Birth rate in London.

334. The births of males in Victoria during 1879 numbered 13,727, those of females 13,112. These numbers furnish a proportion of 104·7 boys to 100 girls. In the previous ten years 137,412 births of males and 131,502 births of females were registered, giving a proportion of 104·5 boys to 100 girls.

Births of males and females.

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

Births of males and females in United Kingdom.

336. Cases in which twins were born numbered 311 in 1879, and 4 cases occurred of triplets being born. In the eleven years ended with 1879, 2,769 cases of twins and 22 cases of triplets were recorded, the total number of births in the same period having been 295,753. There were thus 292,940 confinements in the eleven years, and it follows that 1 mother in every 106 gave birth to twins, and 1 mother in every 13,443 was delivered of three children at a birth.

Twins and triplets.

337. The illegitimate children born in 1879 numbered 1,304, or 1 in every 21 births registered. This proportion is much greater than in any previous year. The illegitimate births in 1878 were set down as 1 in 24; in 1877 as 1 in 26; in 1876 as 1 in 27; in 1875 as 1 in 34; in 1874 as 1 in 28; and in 1873 as 1 in 31. It should, however, be stated that the fact of a birth being illegitimate is not always recognizable except by a very careful examination of the registers, and it is possible that previous returns did not show the full extent to which illegitimacy prevailed, and that portion, at any rate, of the apparent increase during 1879 may have resulted from the fact of the scrutiny having been closer than usual.† In the last eleven years, out of 295,753 infants born, 10,057 were traced as having been born out of

Illegitimate births.

See table following paragraph 330 *ante*.

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

wedlock, which numbers furnish a proportion of 1 illegitimate child to every 29 births.

Women living in concubinage.

338. According to a calculation, the basis of which I have more than once explained,* it follows, from the number of births of legitimate children, that, approximately, 84,834 married women at the fruitful or child-bearing age were living in the colony during 1879, and from the number of births of illegitimate children that, exclusive of public prostitutes, who, as they rarely have children, are omitted from the computation, at least 4,332 single women at a similar period of life were living in concubinage. The total number of single women between 15 and 45 years of age may be estimated to have been 90,662 during the year. It therefore follows that 1 out of every 20 of these was living immorally.

Illegitimacy and concubinage, 1873 to 1879.

339. 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 seven years:—

ILLEGITIMACY AND CONCUBINAGE, 1873 TO 1879.

| Year. | Illegitimate Births. | | Women Living in Concubinage (exclusive of Public Prostitutes). | |
|--------------|----------------------|-----------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| | Total Number. | Percentage of Total Births. | Estimated Total Number. | Number per 100 of Single Women between 15 and 45 Years of Age Living in Victoria. |
| 1873 | 893 | 3·18 | 2,967 | 4·54 |
| 1874 | 984 | 3·67 | 3,269 | 4·41 |
| 1875 | 779 | 2·92 | 2,586 | 3·36 |
| 1876 | 975 | 3·64 | 3,239 | 4·02 |
| 1877 | 1,010 | 3·88 | 3,355 | 3·85 |
| 1878 | 1,103 | 4·15 | 3,664 | 4·20 |
| 1879 | 1,304 † | 4·86 | 4,332 | 4·78 |
| Means | 1,007 | 3·76 | 3,345 | 4·17 |

Illegitimacy in Australasian colonies.

340. Besides Victoria, the only Australasian colonies which publish statistics of illegitimacy are apparently New South Wales, Queensland and New Zealand. According to these, illegitimacy was, over a series of years, most rife in New South Wales, next so in Victoria, next in Queensland, and least of all in New Zealand. The following table shows the percentage of illegitimate to the total births in the four colonies named during each of the seven years ended with 1878:—

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

† With reference to the increase of illegitimate births in 1879, as shown by the figures, see paragraph 337 *ante*.

ILLEGITIMACY IN AUSTRALASIAN COLONIES, 1872 TO 1878.

| 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 |
| Means | 3.49 | 4.12 | 3.19 | 1.80 |

341. 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 1877.

| 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 |
| Means | 5.1 | 8.8 | 2.4 |

342. 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 1879, in the metropolitan district about 1 birth in 12, in extra-metropolitan towns 1 birth in 24, and in country districts 1 birth in 37, was registered as illegitimate. These proportions are higher than similar ones for 1878, when the numbers were 1 in 15, 1 in 25, and 1 in 43 respectively.

343. 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 1879 and the percentage for the previous decennial period:—

BIRTHS IN EACH QUARTER.

| Seasons. | Quarter ended on the last day of— | Year 1879. | | Percentage in Ten Years: 1869 to 1878. |
|------------|-----------------------------------|-------------------|-------------|----------------------------------------|
| | | Number of Births. | Percentage. | |
| Summer ... | March ... | 6,465 | 24·08 | 23·65 |
| Autumn ... | June ... | 6,741 | 25·11 | 25·02 |
| Winter ... | September ... | 7,219 | 26·90 | 27·26 |
| Spring ... | December ... | 6,414 | 23·91 | 24·07 |
| | Year ... | 26,839 | 100·00 | 100·00 |

Deaths, 1879. 344. The deaths in 1879 numbered 12,120, as against 12,702 in 1878. The decrease in the year under notice was thus 582.

Deaths, 1879 and former years. 345. The deaths in 1879 were less numerous than in any year of the previous quinquenniad, but more so than in any year prior to that period. It may be observed that the year in which the highest mortality prevailed was 1875, in which the number of deaths was 15,287, or as many as 3,167 more than in the year under review.*

Excess of births over deaths. 346. The births in 1879 exceeded the deaths by 14,719, or 121 per cent., as against 109 per cent. in 1878. In the eleven years ended with 1879 the proportion was 124 per cent. The following were the births and deaths in each of those eleven 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, 1869 TO 1879.

| Year. | Births. | Deaths. | Excess of Births over Deaths. | |
|----------|---------|---------|-------------------------------|------------------|
| | | | Numerical. | Centesimal. |
| 1869 ... | 26,040 | 10,630 | 15,410 | Per Cent. 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 |
| Mean ... | 26,886 | 11,998 | 14,889 | 128 |

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

347. Of the Australasian colonies, New Zealand is the one in which over a series of years the births exceeded the deaths by the highest proportion. This is due to the high birth rate and low death rate prevailing in that colony, both of which are favored by the circumstance that an abnormally large proportion of the population, resulting from the number of immigrants introduced at the expense of the State, consists of persons at the reproductive period of life, which, being also the strongest, is that at which fewest deaths occur. The low death rate is no doubt also promoted by the salubrity of the climate of New Zealand, but still more so by the circumstance of the population being spread over the country or dispersed throughout a number of small towns, instead of being to a great extent crowded into a few large cities, as is generally the case in the other colonies. The position of Victoria in regard to the proportionate increase of births over deaths is above that of Queensland, Western Australia, or Tasmania, but below that of the other three 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 1878, both inclusive. The colonies are arranged in order, that with the highest mean percentage being placed first, and that with the lowest last :—

Excess of births over deaths in Australasian colonies.

EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN COLONIES, 1873 TO 1878.

| Colony. | Excess of Births over Deaths. | | | | | | Mean of Six Years. |
|------------------------|-------------------------------|-----------|-----------|-----------|-----------|-----------|--------------------|
| | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | |
| | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. |
| 1. New Zealand ... | 208 | 209 | 153 | 230 | 260 | 283 | 222 |
| 2. New South Wales... | 182 | 156 | 109 | 108 | 142 | 135 | 136 |
| 3. South Australia ... | 170 | 124 | 84 | 132 | 167 | 148 | 134 |
| 4. Victoria ... | 144 | 119 | 75 | 97 | 104 | 109 | 101 |
| 5. } Queensland ... | 154 | 128 | 63 | 99 | 113 | 75 | 99 |
| 5. } Western Australia | 94 | 80 | 61 | 140 | 111 | 121 | 99 |
| 6. Tasmania ... | 103 | 83 | 49 | 82 | 58 | 106 | 78 |

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

Excess of births over deaths in European countries.

EXCESS OF BIRTHS OVER DEATHS IN EUROPEAN COUNTRIES.

| Country. | Years over which the Average extends. | | Mean Annual Excess of Births over Deaths. |
|--------------------------|---------------------------------------|--------------|-------------------------------------------|
| | Number. | Period. | |
| England and Wales | 23 | 1853 to 1875 | per cent. 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 |

Deaths of
males and
females.

349. In Victoria, deaths of males in 1879 numbered 7,033, and deaths of females, 5,087. These numbers furnish a proportion of 72 females to every 100 males, as against 77 in the previous year. Females in the total population are in the proportion of 84 to every 100 males; therefore more males and fewer females died in both years than their relative numbers in the population might have given reason to expect.

Annual
death rate.

350. It will be observed by the following table, which shows the death rate of males and females, and of both sexes, during each of the past eleven years, that in 1879 the death rate of both males and females was lower than in any year of the previous decenniad, except 1871. It will also be noticed that, in pursuance of what appears to be a natural law, the death rate in all the years bore more hardly upon males than upon females :—

ANNUAL DEATH RATE,* 1869 TO 1879.

| Year. | Estimated Mean Population. | | Number of Deaths. | | Deaths per 1,000 of the Mean Population. | | |
|-----------------------------|----------------------------|----------|-------------------|----------|------------------------------------------|----------|--------|
| | Males. | Females. | Males. | Females. | Males. | Females. | Total. |
| 1869 ... | 384,267 | 312,675 | 6,221 | 4,409 | 16·19 | 14·10 | 15·25 |
| 1870 ... | 390,480 | 319,359 | 6,114 | 4,306 | 15·66 | 13·48 | 14·68 |
| 1871 ... | 404,983 | 333,742 | 5,845 | 4,073 | 14·43 | 12·20 | 13·43 |
| 1872 ... | 415,605 | 345,386 | 6,308 | 4,523 | 15·18 | 13·10 | 14·23 |
| 1873 ... | 424,729 | 355,633 | 6,565 | 4,936 | 15·45 | 13·88 | 14·74 |
| 1874 ... | 434,073 | 364,615 | 6,994 | 5,228 | 16·11 | 14·34 | 15·30 |
| 1875 ... | 442,623 | 372,411 | 8,563 | 6,724 | 19·35 | 18·06 | 18·76 |
| 1876 ... | 451,134 | 379,545 | 7,716 | 5,845 | 17·10 | 15·40 | 16·33 |
| 1877 ... | 461,542 | 388,328 | 7,345 | 5,431 | 15·91 | 13·99 | 15·03 |
| 1878 ... | 472,309 | 396,731 | 7,179 | 5,523 | 15·20 | 13·92 | 14·62 |
| 1879 ... | 483,425 | 405,075 | 7,033 | 5,087 | 14·55 | 12·56 | 13·64 |
| Mean of eleven years | | | | | 15·92 | 14·15 | 15·12 |

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

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

351. However favorable may be the circumstances for prolonging life, as all must die at some time or other, it is evident that every country must have a death rate; but, as I have mentioned on former occasions,* it has been held by high authority that in countries in which the climate is healthy, hygiene properly attended to, and the population in a normal condition as regards age, the ordinary mortality incident to human nature would probably cause this death rate to be in the proportion of about 17 per 1,000 persons living. It should, however, be borne in mind that death rates based merely upon the total population, in common with birth and marriage rates calculated upon a like basis, are not always fair tests of the state of a community. If the proportion of very young or old people is high, the death rate will be also high; but if, on the other hand, the number of persons at the middle ages is excessive, the death rate will be low. Until the next census is taken, the conditions of the people of Victoria as regards age cannot be known. It will, however, be remarked that the mortality reached as high as 17 per 1,000 only once in the eleven years named in the table. In 1879 it was $3\frac{1}{2}$ deaths below it per 1,000 persons living, and, according to the average annual mortality of the eleven years, it was nearly 2 below it per 1,000 persons living.

Normal death rate.

352. The following table shows the death rates of the different Australasian colonies during the eleven years ended with 1878. It will be observed that over a series of years the annual death rate has been highest in Queensland and lowest in New Zealand; also that the average death rate of all the colonies except Queensland is below 17 per 1,000:—

Death rates in Australasian colonies.

DEATH RATES IN AUSTRALASIAN COLONIES, 1868 TO 1878.†

| Year. | Number of Deaths per 1,000 of Mean Populations. | | | | | | |
|-----------|-------------------------------------------------|------------------|------------|------------------|--------------------|-----------|--------------|
| | Victoria. | New South Wales. | Queensland | South Australia. | Western Australia. | Tasmania. | New Zealand. |
| 1868 ... | 15·00 | 15·83 | 17·36 | 14·41 | ... | 14·70 | 11·94 |
| 1869 ... | 15·25 | 14·05 | 16·20 | 12·37 | ... | 13·20 | 11·73 |
| 1870 ... | 14·68 | 13·27 | 14·59 | 13·94 | ... | 13·88 | 11·13 |
| 1871 ... | 13·43 | 12·54 | 14·83 | 12·87 | ... | 13·38 | 10·13 |
| 1872 ... | 14·23 | 14·11 | 14·97 | 15·33 | 14·02 | 13·79 | 11·68 |
| 1873 ... | 14·74 | 13·84 | 16·06 | 13·48 | 16·24 | 14·52 | 12·67 |
| 1874 ... | 15·30 | 15·12 | 17·98 | 17·05 | 18·74 | 16·21 | 13·05 |
| 1875 ... | 18·76 | 18·09 | 23·80 | 19·45 | 17·88 | 20·00 | 15·92 |
| 1876 ... | 16·33 | 18·11 | 18·82 | 16·28 | 14·18 | 16·54 | 12·66 |
| 1877 ... | 15·03 | 15·28 | 17·29 | 13·99 | 15·70 | 19·17 | 11·47 |
| 1878 ... | 14·62 | 15·88 | 20·41 | 15·44 | 14·07 | 15·66 | 11·01 |
| Means ... | 15·22 | 15·10 | 17·01 | 14·96 | 15·83 | 15·55 | 12·13 |

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

† For the number of deaths in the various colonies during the seven years ended with 1879, see General Summary of Australasian Statistics (third folding sheet) ante.

High and low death rates coincident in Australasian colonies.

353. That like causes are at work in the various colonies to swell or diminish the rate of mortality appears evident from the fact that in nearly all the colonies the mortality gradually declined from 1868 to 1871, when, in all cases, the rate was unusually low, and in many cases the minimum of the period, and that it again increased gradually to a high rate in 1875. It should be mentioned that epidemics of measles and scarlatina prevailed in 1867 and 1875. Moreover, in looking at the increased mortality at the latter period, due principally to the presence of these epidemics, it would seem that the causes first appeared in Western Australia, and swept easterly over the whole continent—thus a sudden increase of mortality occurred in Western Australia in 1874, in South Australia between 1874 and 1875, in Victoria and the other colonies, except New South Wales, in 1875, extending partly into 1876, and in New South Wales in 1875 and 1876, distributed equally over the two years; and in nearly every instance the high mortality subsided in 1877 to about the average.

Order of colonies in respect to death rates.

354. The following is the order of the colonies in reference to their respective death rates in the last year shown in the table, and according to the average of the whole period of eleven years. The colony with the lowest rate is placed first, and that with the highest last. It will be noticed that Victoria occupies the third place in the list for 1878, and the fourth in that showing the average during eleven years :—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO DEATH RATES.

| Order in 1878. | Order over a Series of Years. |
|-----------------------|-------------------------------|
| 1. New Zealand. | 1. New Zealand. |
| 2. Western Australia. | 2. South Australia. |
| 3. Victoria. | 3. New South Wales. |
| 4. South Australia. | 4. Victoria. |
| 5. Tasmania. | 5. Tasmania. |
| 6. New South Wales. | 6. Western Australia. |
| 7. Queensland. | 7. Queensland. |

Death rate in Australia and Australasia.

355. The death rate of the colonies situated upon the continent of Australia taken in combination, and the death rate of those colonies with the addition of Tasmania and New Zealand, are shown in the following table. The increased mortality during the years when epidemics prevailed and its subsequent diminution will be at once noticed :—

DEATH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1878.

| 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 |
| Means | 16·22 | 15·71 |

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

Death rates in certain British possessions.

DEATH RATES IN CERTAIN BRITISH POSSESSIONS.

| Colonies. | Years. | Number of Deaths per 1,000 of the Population. |
|-----------------------|---------|-----------------------------------------------|
| Ceylon | 1867-76 | 21·62 |
| 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 | 1877 | 38·11 |
| West Indies— | | |
| Bahamas | 1874-5 | 22·60 |
| St. Vincent | 1872-6 | 28·00 |
| Barbadoes | 1872-7 | 22·77 |
| 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 |

357. 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,

Death rates in European countries.

apparently lower than that 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, 1867 to 1877.

| Years. | Number of Deaths per 1,000 of Mean Population. | | | | | | | | | | | | | |
|----------|------------------------------------------------|-----------|-----------|----------|---------|----------|----------|----------|----------------|----------|------------------|---------|--------|--------|
| | England and Wales. | Scotland. | Ireland.* | Denmark. | Sweden. | Austria. | Hungary. | Prussia. | German Empire. | Belgium. | The Netherlands. | France. | Spain. | Italy. |
| 1867 ... | 21·7 | 21·3 | 17·0 | 20·0 | 19·6 | 28·1 | 33·5 | 25·6 | ... | 21·6 | 23·6 | 22·7 | 29·1 | 34·2 |
| 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 | 25·9 | ... | 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 | 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 | 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 | 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 | 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 | 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 | 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 | ... | 25·5 | 26·6 | 21·1 | 22·0 | 21·7 | ... | 28·1 |
| Means | 21·8 | 22·1 | 17·2 | 19·4 | 19·3 | 30·7 | 39·3 | 26·7 | 27·4 | 22·5 | 24·5 | 24·3 | 31·1 | 30·1 |

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; 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.

358. It will be observed that in all the countries named, except Ireland* and Austria, the death rate in 1877 was below the average. In that year the rates in England, Scotland, and Holland were absolutely the lowest during the eleven years; in Germany, Belgium, France, and Italy, the lowest, with one exception; in Denmark, the lowest, with two; and in Sweden, the lowest, with three exceptions.

* 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.

359. The death rate of the United Kingdom, according to the Reports of the Registrar-General of England, was as follows during each of the seven years ended with 1877. 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 1877.

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

360. In every country the death rate is higher in towns than it is in the country districts. This circumstance, though no doubt partly attributable to the superior healthfulness and immunity from contagion prevailing in the latter, is also to a great extent due to the fact that hospitals and charitable institutions, which are frequented by patients from the country as well as by town residents, are generally situated in the towns; and further that outside of charitable institutions many persons die who have come from the country on the approach of serious illness for the sake of the superior nursing and medical attendance to be obtained in town. In 1879, as also in the two previous years, the death rate was somewhat higher in Melbourne and suburbs than in the country towns, but in both it was very much higher than in the country districts. The following are the figures for 1879 :—

Death rates in town and country.

DEATHS IN URBAN AND COUNTRY DISTRICTS, 1879.

| Districts. | Estimated Mean Population. | Deaths, 1879. | |
|-------------------------------------|----------------------------|---------------|-------------------------------------|
| | | Total Number. | Number per 1,000 of the Population. |
| Melbourne and suburbs ... | 265,000 | 5,096 | 19·23 |
| Towns outside Melbourne and suburbs | 194,965 | 3,553 | 18·22 |
| Country districts ... | 428,535 | 3,471 | 8·10 |
| Total ... | 888,500 | 12,120 | 13·64 |

361. In Victorian town districts the annual mortality is invariably much above the normal 17 per 1,000 persons living, but in country districts it is always very considerably below this rate.

Normal death rate in town and country.

Death rates
in Mel-
bourne and
suburbs.

362. The following table shows the mean population, the number of deaths, and the death rate in 1879, also the death rate during the octennial period 1871 to 1878, in the different municipalities, &c., forming the component parts of the district of Melbourne and suburbs. In order to render the rates of the various districts comparable as far as possible, the deaths in hospitals and similar institutions have, for the first time, not been included in the districts where they occurred, but are shown separately near the end of the table:—

DEATH RATES IN MELBOURNE AND SUBURBS, 1871 TO 1879.

| Sub-districts. | Year 1879. | | | Eight Years: 1871 to 1878. |
|------------------------------------|---------------------|------------------|--------------------------------------------|------------------------------------------------------|
| | Mean Population. | Deaths. | | |
| | | Total Number. | Number per 1,000 of the Population.‡ | Annual Deaths per 1,000 of Mean Population. |
| Melbourne City | 62,356 | 1,048 | 16·81 | 16·91 |
| Hotham Town | 15,636 | 260 | 16·63 | 17·48 |
| Fitzroy City | 19,163 | 358 | 18·68 | 18·87 |
| Collingwood City | 22,300 | 418 | 18·74 | 20·52 |
| Richmond Town | 20,949 | 338 | 16·13 | 17·95 |
| Brunswick Borough | 5,816 | 71 | 12·21 | 15·05 |
| Prahran City | 20,040 | 329 | 16·42 | 17·44 |
| Emerald Hill Town | 25,900 | 336 | 12·97 | 17·08 |
| Sandridge Borough | 7,945 | 124 | 15·61 | 17·78 |
| St. Kilda Borough | 10,283 | 131 | 12·74 | 14·39 |
| Brighton Borough | 4,650 | 61 | 13·12 | 14·16 |
| Essendon and Flemington Borough | 3,950 | 87 | 22·03 | 18·29 |
| Hawthorn Borough | 5,410 | 80 | 14·79 | 17·51 |
| Kew Borough | 3,800 | 51 | 13·42 | 12·03 |
| Footscray Borough | 5,500 | 80 | 14·55 | 17·80 |
| Williamstown Borough | 8,300 | 123 | 14·82 | 18·54 |
| Remainder of district | 17,363 | 165 | 9·50 | 12·47 |
| Hospitals, asylums, &c.* | 3,600 | 1,035 | ... | ... |
| Shipping in Hobson's Bay and river | 2,039† | 1 | ·49 | 4·66 |
| Total | 265,000 | 5,096 | 19·23 | 20·80 |

Districts
where death
rate was
above the
average.

363. It will be observed that in 1879 the death rate was below the average of the previous eight years in all the sub-districts, except Essendon and Flemington, and Kew, but that in the former of these the death rate was nearly 4, and in the latter $1\frac{2}{5}$ per 1,000 above the average.

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

† Figures showing the population of shipping at census of 2nd April 1871.

‡ In order to compare the death rate with density of population, see paragraph 60 ante.

364. The only sub-district which had, according to the average of eight 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 Williamstown; and the next in Essendon and Flemington. In 1879, however, the death rate in the last-named district was much higher than in either Collingwood or Fitzroy, in the former of which the death rate was in that year much below the average. The lowest death rate, both during 1879 and the period of eight years, was in the shipping; the next during 1879 in the portion of the district not included in any city, town, or borough; the next in Brunswick; the next in St. Kilda; and the next in Emerald Hill. During the period of eight years, after the shipping, the lowest death rate was in Kew; the next in the "remainder" of the district; the next in Brighton; and the next in St. Kilda.

Places in which death rate was highest and lowest.

365. The death rate of the whole district, in the calculation of which the deaths in charitable institutions are included, was a fraction over 19 per 1,000 persons living in 1879, and a fraction under 21 per 1,000 in the preceding period of eight years. During the last-named period the annual death rate was over 17 per 1,000 in all the sub-districts, except Melbourne, Brunswick, St. Kilda, Brighton, Kew, the "remainder" of the district, and the shipping; but during 1879 it was over 17 per 1,000 in only three sub-districts, viz., Fitzroy, Collingwood, and Essendon and Flemington. In considering the death rate of the individual districts, the hospitals, asylums, &c., have been eliminated.

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

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

Death rates in towns of United Kingdom.

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

| | Annual Deaths per 1,000 of the Population. | | Annual Deaths per 1,000 of the Population. |
|-------------------|--------------------------------------------|-----------------------|--------------------------------------------|
| Portsmouth ... | 19.56 | Bradford ... | 24.92 |
| Brighton ... | 19.82 | Birmingham ... | 25.02 |
| Plymouth ... | 21.26 | Oldham ... | 25.88 |
| Edinburgh ... | 22.18 | Leeds ... | 26.02 |
| Sunderland ... | 22.44 | Newcastle-on-Tyne ... | 26.12 |
| Norwich ... | 22.48 | Dublin ... | 26.50 |
| London ... | 22.58 | Salford ... | 27.52 |
| Nottingham ... | 23.22 | Glasgow ... | 27.78 |
| Bristol ... | 23.40 | Liverpool ... | 27.90 |
| Leicester ... | 23.94 | Manchester ... | 29.40 |
| Hull ... | 24.28 | | |
| Wolverhampton ... | 24.34 | Mean of towns named | 24.40 |
| Sheffield ... | 24.74 | | |

Deaths in
each month.

367. 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. The number of deaths in each month of 1879, 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 1879. | | Percentage in Ten Years: 1869 to 1878. |
|-----------------|----------------------|-------------|----------------------------------------------|
| | Number of Deaths. | Percentage. | |
| January | 1,153 | 9·51 | 10·35 |
| February | 1,055 | 8·70 | 9·21 |
| March | 1,256 | 10·36 | 10·39 |
| April | 1,192 | 9·84 | 9·91 |
| May | 1,146 | 9·46 | 8·58 |
| June | 954 | 7·87 | 7·37 |
| July | 991 | 8·18 | 7·85 |
| August | 915 | 7·55 | 7·23 |
| September... .. | 857 | 7·07 | 6·61 |
| October | 841 | 6·94 | 7·03 |
| November | 801 | 6·61 | 6·98 |
| December | 959 | 7·91 | 8·49 |
| Year | 12,120 | 100·00 | 100·00 |

Deaths at
different
seasons.

368. In Victoria the summer is, to invalids and young children, the most trying portion of the year. It is not astonishing, therefore, that most deaths occur during that period. Next to the summer the autumn quarter is the most fatal, probably in part owing to the circumstance that some who had become debilitated during the summer linger on for some months later. In the United Kingdom, on the contrary, the greatest mortality occurs in the winter, and the least in the summer quarter. A statement of the relative mortality of the different seasons in Victoria, according to the experience of the past year and the preceding ten years; in England and Wales, according to the experience of thirty-one years; in Scotland, according to the experience of ten years; and in Ireland, according to the experience of five years; together with the mean temperature in each quarter in Melbourne and Greenwich, will be found in the following table :—

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

| Seasons.* | Melbourne, Victoria. | Greenwich, England. | Deaths per 100 at all Seasons. | | | | |
|------------|-------------------------------|------------------------|-------------------------------------------|------------------------------------|-----------------------------|------------------------------|----------|
| | | | Victoria. | | England and Wales. | Scotland. | Ireland. |
| | Mean Temperature in Shade. | Year 1879. | Average of Ten Years: 1869 to 1878. | Average of Thirty-one Years. | Average of Ten Years. | Average of Five Years. | |
| Summer ... | 65.2 | 60.5 | 28.57 | 29.95 | 23.24 | 22.34 | 20.21 |
| Autumn ... | 53.8 | 44.3 | 27.17 | 25.86 | 24.65 | 24.71 | 23.45 |
| Winter ... | 50.2 | 40.0 | 22.80 | 21.69 | 27.49 | 27.95 | 30.19 |
| Spring ... | 60.3 | 52.8 | 21.46 | 22.50 | 24.62 | 25.00 | 26.15 |
| Year ... | 57.6 | 49.4 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

369. The following table shows the number and percentage at various ages of the deaths registered in Victoria during the year 1879. It will be noticed that more than two-fifths of the males who died were under 15 years, and nearly two-fifths were over 45 years of age; also that of the females nearly half were under 15 years, and more than a fourth were between 15 and 45 years of age:—

DEATHS AT EACH AGE, 1879.

| Ages. | Number of Deaths at each Age, 1879. | | | Percentage of Deaths at each Age. | | |
|--------------------------|----------------------------------------|----------|--------|-----------------------------------|----------|--------|
| | Males. | Females. | Total. | Males. | Females. | Total. |
| Under 5 years ... | 2,540 | 2,100 | 4,640 | 36.12 | 41.28 | 38.28 |
| 5 years to 10 years ... | 250 | 251 | 501 | 3.55 | 4.94 | 4.13 |
| 10 " 15 " ... | 142 | 138 | 280 | 2.02 | 2.71 | 2.31 |
| 15 " 25 " ... | 396 | 406 | 802 | 5.63 | 7.98 | 6.62 |
| 25 " 35 " ... | 349 | 412 | 761 | 4.96 | 8.10 | 6.28 |
| 35 " 45 " ... | 628 | 480 | 1,108 | 8.93 | 9.44 | 9.14 |
| 45 " 55 " ... | 990 | 430 | 1,420 | 14.08 | 8.45 | 11.72 |
| 55 " 65 " ... | 853 | 377 | 1,230 | 12.13 | 7.41 | 10.15 |
| 65 " 75 " ... | 545 | 282 | 827 | 7.75 | 5.54 | 6.82 |
| 75 years and upwards ... | 340 | 211 | 551 | 4.83 | 4.15 | 4.55 |
| Total ... | 7,033 | 5,087 | 12,120 | 100.00 | 100.00 | 100.00 |

370. The death rate at every period of life in Victoria, according to the average of the ten years which intervened between the censuses of 1861 and 1871, is less than in England and Wales. In England and Wales the death rate of males exceeds that of females at all periods

* 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.

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

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

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

Deaths of octogenarians.

371. The persons who died at the age of 80 or upwards numbered 245 in 1879, as against 217 in 1878, 216 in 1877, and 203 in 1876. Those in the year under review comprised 143 males and 102 females. Fifteen males and 7 females had passed the age of 90, 1 female had reached, and 2 males had passed, the age of 100. The following are the exact ages recorded :—

NUMBER DYING AGED 80 OR UPWARDS, 1879.

| Years of Age. | Males. | Females. | Years of Age. | Males. | Females. | Years of Age. | Males. | Females. |
|---------------|--------|----------|---------------|--------|----------|---------------|--------|----------|
| 80 | 33 | 13 | 88 | 6 | 6 | 97 | 1 | ... |
| 81 | 17 | 10 | 89 | 7 | 3 | 98 | 1 | 1 |
| 82 | 16 | 6 | 90 | 3 | 3 | 99 | 2 | ... |
| 83 | 11 | 9 | 91 | ... | 2 | 100 | ... | 1 |
| 84 | 10 | 21 | 92 | 2 | ... | 104 | 2 | ... |
| 85 | 11 | 10 | 93 | 1 | ... | | — | — |
| 86 | 9 | 9 | 95 | 2 | ... | Total | 143 | 102 |
| 87 | 8 | 8 | 96 | 1 | ... | | — | — |

Causes of death of octogenarians.

372. In respect to 134 of these persons—viz., 76 males and 58 females—no other cause of death was set down than old age. Of actual

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

complaints, the most common were affections of the lungs and of the brain. The number of deaths set down to each cause was as follows :—

CAUSES OF DEATH OF PERSONS AGED 80 OR UPWARDS, 1879.

| | Males. | Females. | | Males. | Females. |
|-------------------------|--------|----------|----------------------|--------|----------|
| Typhoid fever, &c. ... | ... | 2 | Lung diseases ... | 20 | 14 |
| Influenza ... | ... | 1 | Stomach diseases ... | 5 | 2 |
| Erysipelas ... | 1 | ... | Kidney diseases ... | 5 | ... |
| Dysentery and diarrhoea | 5 | 3 | Old age ... | 76 | 58 |
| Scurvy ... | 1 | ... | Accidents ... | 1 | 3 |
| Dropsy ... | 2 | 1 | | — | — |
| Cancer ... | 6 | 2 | Total ... | 143 | 102 |
| Brain diseases ... | 13 | 14 | | — | — |
| Heart diseases ... | 6 | 3 | | | |

373. The death rate of infants in 1879 was less than in 1878, and was also slightly below the average. The total number who died under 1 year of age was 3,219, and as the births numbered 26,839, it follows that 1 infant died to every 8 births, or 11·99 infants to every 100 births. In the eleven years 1868 to 1878 the proportion of infants dying before completing their first year was 12·11 to every 100 births. Infantile mortality, 1879.

374. Of all the Australasian colonies which publish returns from which the death rate of infants can be calculated, the one in which the largest number of infants die in proportion to the number born is South Australia ;* and although in that colony the rate in 1877 was much below the average, it again rose in 1878, and was higher than in seven of the previous ten years. In Queensland, during the four years ended with 1878, the infantile mortality was exceptionally high, and in the last two of those years it was even higher than in South Australia, a circumstance which had never before occurred in any other Australasian colony. In 1878, the infantile mortality was much below the average in New Zealand, where the rate is generally lower than that in any other of the colonies, whilst in Tasmania it was lower than in the previous year, but above the average. The rate in Victoria in 1878 was slightly above the average. The following table gives the number of births, the number of deaths of infants under one year, and the proportion of the latter to the former in each of the colonies of the group, except Western Australia (which does not publish any statement of the number of infants who die), for each of the eleven years ended with 1878. All Infantile mortality in Australasian colonies.

* The high infantile death rate in South Australia was first pointed out in a paper, by the present writer, read before the Adelaide Philosophical Society 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.

the calculations were made in the office of the Government Statist, Melbourne:—

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. | | |
| 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 |
| Sums and means } } | 296,157 | 35,863 | 12·11 | 236,396 | 25,092 | 10·61 | 64,767 | 8,488 | 13·11 |
| SOUTH AUSTRALIA. | | | | TASMANIA. | | | NEW ZEALAND. | | |
| 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 |
| Sums and means } } | 83,788 | 12,690 | 15·14 | 34,078 | 3,526 | 10·35 | 140,071 | 13,877 | 9·91 |

375. 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-named colonies have nearly the same average rates, whilst the rate in South Australia is much the highest:—

ORDER OF COLONIES IN REFERENCE TO INFANTILE MORTALITY.

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

376. 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

Order of colonies in respect to infantile mortality.

Infantile mortality in United Kingdom.

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.

377. The infantile mortality of large towns is naturally always greater than that in country districts. Thus the deaths at under 1 year of age in Melbourne and suburbs during the seven years ended with 1879 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 10¼ 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 seven years named :—

Infantile mortality in Melbourne and country.

INFANTILE MORTALITY IN AND OUTSIDE OF MELBOURNE AND SUBURBS, 1873 TO 1879.

| Year. | Births. | Deaths at under 1 Year of Age. | | Births. | Deaths at under 1 Year of Age. | |
|------------------|------------------------|--------------------------------|-----------------------|------------------------------------------|--------------------------------|-----------------------|
| | | Total Number. | Number to 100 Births. | | Total Number. | Number to 100 Births. |
| | Melbourne and Suburbs. | | | Victoria, outside Melbourne and Suburbs. | | |
| 1873 ... | 8,007 | 1,277 | 15·95 | 20,093 | 1,904 | 9·48 |
| 1874 ... | 7,946 | 1,480 | 18·63 | 18,854 | 1,861 | 9·87 |
| 1875 ... | 8,227 | 1,546 | 18·79 | 18,493 | 2,265 | 12·25 |
| 1876 ... | 8,202 | 1,339 | 16·33 | 18,567 | 1,641 | 8·84 |
| 1877 ... | 8,295 | 1,407 | 16·96 | 17,715 | 1,892 | 10·68 |
| 1878 ... | 8,636 | 1,297 | 15·02 | 17,903 | 1,965 | 10·98 |
| 1879 ... | 8,829 | 1,467 | 16·61 | 18,010 | 1,752 | 9·73 |
| Sums and means } | 58,142 | 9,813 | 16·88 | 129,635 | 13,280 | 10·24 |

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

Infantile mortality in English towns.

INFANTILE MORTALITY IN TWENTY TOWNS OF ENGLAND,
1870 TO 1876.

| Deaths under 1 Year of Age to 100 Births. | | | Deaths under 1 Year of Age to 100 Births. | | |
|----------------------------------------------|-----|------|----------------------------------------------|-----|------|
| Portsmouth | ... | 14·5 | Nottingham | ... | 18·8 |
| Brighton | ... | 16·0 | Salford | ... | 18·9 |
| Plymouth | ... | 16·0 | Newcastle-on-Tyne | ... | 18·9 |
| London | ... | 16·1 | Norwich | ... | 19·3 |
| Bristol | ... | 16·3 | Manchester | ... | 19·6 |
| Sunderland | ... | 17·1 | Bradford | ... | 19·8 |
| Wolverhampton | ... | 17·2 | Leeds | ... | 20·0 |
| Birmingham | ... | 17·9 | Leicester | ... | 22·5 |
| Hull | ... | 17·9 | Liverpool | ... | 23·1 |
| Oldham | ... | 18·2 | | | |
| Sheffield | ... | 18·4 | Mean of towns named | | 18·3 |

Deaths of
infants in
Lying-in
Hospital.

379. In the Lying-in Hospital, Melbourne, 602 children were born alive during 1879, and of these, 47, or nearly 8 per cent., died before leaving the institution. 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.

Deaths of
Chinese
and Aborigines.

380. The deaths of Chinese recorded in 1879 amounted to 181, and those of Aborigines to 18. The former furnishes a proportion of 13·92 and the latter of 16·87 to every 1,000 of their supposed numbers.* At the same time the proportion of deaths of all races to every 1,000 of the population was 13·64. It must be stated that the estimates made of the strength of the Chinese and Aborigines are not so reliable as those respecting the general population.

Ages of
Chinese and
Aborigines.

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

Average age
at death.

382. The average age at death in 1879 was 28·19 years, or 28 years and 2 months. For males the average age was 30·65 years, or 30 years and 8 months, and for females, 24·71 years, or 24 years and 8 months. The average age at which both males and females die in Victoria is becoming more advanced from year to year. This will be seen by the following figures :—

AVERAGE AGE AT DEATH IN VICTORIA.

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

Classification
of causes of
death.

383. The causes of death in Victoria, as in the United Kingdom, are arranged in classes and orders, according to the system proposed by

* Chinese estimated to number 13,000; Aborigines, 1,067.

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.

384. A Nosological Index was compiled by the present writer some years since, under the sanction of the then Registrar-General, Mr. W. H. Archer, to be used in connection with this classification in order to facilitate the bringing of all the circumstances resulting in death under one or other of the heads in the list, also for the guidance of deputy registrars in receiving, and of medical men in supplying, information respecting the causes of death, and of officers of charitable and other public institutions in preparing statistical tables of the deaths and sickness occurring therein.

Nosological Index.

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

Victorian index used throughout Australasia.

386. 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 1879, also the total number who died from each cause during the twenty-five years and a half ended with 1878 :—

Causes of death classified.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT.

(25½ Years : 1853 to 1878 ; and Year 1879.)

| Class. | Order. | Causes of Death. | Number of Deaths. | | | |
|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------|----------|-------------|
| | | | 25½ Years : 1853-1878 | Total. † | Chinese. | Aborigines. |
| | | All causes | 262,130 | 12,120 | 181 | 18 |
| | | Specified causes | 260,529 | 12,084 | 180 | 18 |
| | | 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 | 80,759 | 2,879 | 22 | 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 | 34,301 | 1,790 | 35 | 5 |

* 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.*
(25½ Years: 1853 to 1878; and Year 1879.)

| Class. | Order. | Causes of Death. | Number of Deaths. | | | |
|----------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------|----------|-------------|
| | | | 25½ Years: 1853-1878 | Total. * | Chinese. | Aborigines. |
| CLASSES—<i>continued.</i> | | | | | | |
| III. | ... | LOCAL DISEASES:— Monorganici (μόνος, alone, without others; ὄργανον, organ). Sporadic diseases, in which the functions of particular organs or systems are disturbed or obliterated, with or without inflammation | 86,858 | 5,030 | 80 | 9 |
| IV. | ... | DEVELOPMENTAL DISEASES:— Metamorphici (μεταμόρφωσις, change of form). Special diseases, the incidental result of the formative, reproductive, and nutritive processes | 36,977 | 1,570 | 13 | 2 |
| V. | ... | VIOLENT DISEASES OR DEATHS:— Thanatici (θάνατοι, violent deaths). Diseases which are the evident and direct results of physical or chemical forces, acting either by the will of the sufferer, of other persons, or accidentally | 21,634 | 815 | 30 | 1 |
| ORDERS. | | | | | | |
| I. | 1 | <i>Miasmatic diseases:—</i> Miasmatici (μίασμα, stain; defilement) | 74,378 | 2,484 | 17 | ... |
| | 2 | <i>Enthetic diseases:—</i> Enthetici (ἐνθετος, put in; implanted) | 664 | 52 | ... | ... |
| | 3 | <i>Dietic diseases:—</i> Dietici (δίαιτα, way of life; diet) | 4,265 | 259 | 5 | ... |
| | 4 | <i>Parasitic diseases:—</i> Parasitici (παράσιτος, parasite) | 1,452 | 84 | ... | 1 |
| II. | 1 | <i>Diathetic diseases:—</i> Diathetici (διάθεσις, condition; diathesis) | 6,927 | 484 | 12 | 1 |
| | 2 | <i>Tubercular diseases:—</i> Phthisisici (φθίσις, wasting away) | 27,374 | 1,306 | 23 | 4 |
| III. | 1 | <i>Brain diseases:—</i> Cephalici (κεφαλή, head) ... | 28,057 | 1,378 | 12 | 2 |
| | 2 | <i>Heart diseases:—</i> Cardiaci (καρδία, heart) ... | 11,672 | 805 | 25 | 2 |
| | 3 | <i>Lung diseases:—</i> Pneumonici (πνεύμων, lung) | 24,390 | 1,504 | 19 | 4 |
| | 4 | <i>Bowel diseases:—</i> Enterici (έντερον, intestine) | 18,407 | 997 | 16 | 1 |
| | 5 | <i>Kidney diseases:—</i> Nephritici (νεφρός, kidney) | 2,717 | 265 | 3 | ... |
| | 6 | <i>Genetic diseases:—</i> Aidoici (αἰδοῖα, pudenda) | 450 | 24 | 1 | ... |
| | 7 | <i>Bone and muscle diseases:—</i> Myostici (μῦς, muscle; ὀστέον, bone) | 623 | 24 | ... | ... |
| | 8 | <i>Skin diseases:—</i> Chrotici (χρῶς, skin) ... | 542 | 33 | 4 | ... |
| IV. | 1 | <i>Developmental diseases of children:—</i> Paidiaci (παιδία, youth) | 12,557 | 416 | 1 | ... |
| | 2 | <i>Developmental diseases of women:—</i> Gyniaci (γυνή, woman) | 2,582 | 127 | ... | ... |
| | 3 | <i>Developmental diseases of old people:—</i> Geratici (γῆρας, old age) | 3,590 | 316 | 2 | 2 |

* The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(25½ Years: 1853 to 1878; and Year 1879.)

| Class. | Order. | Causes of Death. | Number of Deaths. | | | |
|---------------------------------|--------|-------------------------------------------------------------|----------------------------|-------------|----------|-------------|
| | | | 25½ Years: 1853-1878 | Year 1879. | | |
| | | | | Total. * | Chinese. | Aborigines. |
| ORDERS—<i>continued.</i> | | | | | | |
| IV. | 4 | <i>Diseases of nutrition</i> :—Atrophici (ἀτροφία, atrophy) | 18,248 | 711 | 10 | ... |
| V. | 1 | <i>Accident</i> :—Tychici (τύχη, chance) ... | 19,547 | 691 | 21 | 1 |
| | 2 | <i>Battle</i> :—Polemici (πόλεμος, battle; fight) ... | ... | ... | ... | ... |
| | 3 | <i>Homicide</i> :—Androphonici (άνήρ, man; φονεύω, I kill) | 459 | 15 | 1 | ... |
| | 4 | <i>Suicide</i> :—Autophonici (αὐτός, self; φονεύω, I kill) | 1,557 | 108 | 8 | ... |
| | 5 | <i>Execution</i> :—Demiotici (δημιώτης, executioner) | 71 | 1 | ... | ... |
| DISEASES, ETC. | | | | | | |
| I. | 1 | Small-pox | 21 | ... | ... | ... |
| | | Chicken-pox | 40 | ... | ... | ... |
| | | Measles | 3,844 | 3 | ... | ... |
| | | Scarlatina | 8,623 | 61 | ... | ... |
| | | Diphtheria | 7,497 | 337 | 1 | ... |
| | | Quinsy | 593 | 14 | ... | ... |
| | | Croup | 3,704 | 275 | ... | ... |
| | | Whooping-cough | 4,105 | 193 | ... | ... |
| | | Typhoid fever, &c. | 10,608 | 438 | 2 | ... |
| | | Erysipelas | 972 | 57 | ... | ... |
| | | Metria | 653 | 38 | ... | ... |
| | | Carbuncle, boil, &c. | 59 | 4 | ... | ... |
| | | Influenza, coryza, catarrh | 839 | 32 | ... | ... |
| | | Dysentery | 12,246 | 140 | 6 | ... |
| | | Diarrhœa | 17,016 | 698 | 5 | ... |
| | | Cholera | 1,193 | 43 | 3 | ... |
| | | Ague | 88 | 5 | ... | ... |
| | | Remittent fever | 675 | 11 | ... | ... |
| | | Rheumatism | 1,196 | 105 | ... | ... |
| | | Miasmatic diseases not classed | 406 | 30 | ... | ... |
| | 2 | Syphilis | 514 | 41 | ... | ... |
| | | Gonorrhœa, stricture of the urethra | 148 | 11 | ... | ... |
| | | Glanders | 2 | ... | ... | ... |
| | 3 | Privation | 408 | 14 | 3 | ... |
| | | Want of breast-milk | 1,877 | 170 | ... | ... |
| | | Purpura and scurvy | 262 | 14 | 2 | ... |
| | | Alcoholism | 1,691 | 60 | ... | ... |
| | | Other dietic diseases | 27 | 1 | ... | ... |
| | 4 | Thrush | 939 | 22 | ... | ... |
| | | Worms, &c. | 58 | 1 | ... | ... |
| | | Hydatids | 436 | 60 | ... | 1 |
| | | Other parasitic diseases | 19 | 1 | ... | ... |
| II. | 1 | Gout | 151 | 15 | ... | ... |
| | | Dropsy | 1,957 | 50 | 2† | ... |
| | | Cancer | 3,850 | 383 | 9 | ... |

* The Chinese and Aborigines are included in this column.

† Including 1 case of beriberi.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(25½ Years: 1853 to 1878; and Year 1879.)

| Class. | Order. | Causes of Death. | Number of Deaths. | | | |
|-----------------------------------------|--------|----------------------------------------------------|----------------------------|------------|----------|-------------|
| | | | 25½ Years: 1853-1878 | Total * | Chinese. | Aborigines. |
| DISEASES, ETC.—<i>continued.</i> | | | | | | |
| II. | 1 | Tumor | 364 | 23 | 1 | 1 |
| | | Polypus | 9 | ... | ... | ... |
| | | Noma | 62 | 4 | ... | ... |
| | | Mortification | 365 | 9 | ... | ... |
| | | Other diathetic diseases | 169 | ... | ... | ... |
| | 2 | Scrofula | 967 | 35 | ... | ... |
| | | Tabes mesenterica | 2,115 | 61 | ... | ... |
| | | Phthisis | 19,635 | 1,058 | 22 | 4 |
| | | Hydrocephalus | 3,947 | 120 | ... | ... |
| | | Other tubercular diseases | 710 | 32 | 1 | ... |
| III. | 1 | Cephalitis | 4,180 | 274 | 1 | ... |
| | | Apoplexy | 4,624 | 315 | 1 | ... |
| | | Paralysis | 2,241 | 187 | ... | ... |
| | | Insanity † | 255 | ... | ... | ... |
| | | Chorea | 37 | 6 | ... | ... |
| | | Epilepsy | 1,017 | 76 | ... | ... |
| | | Convulsions | 9,350 | 252 | 2 | 1 |
| | | Other diseases of the nervous system | 6,353 | 268 | 8 | 1 |
| | 2 | Pericarditis | 667 | 40 | 1 | ... |
| | | Aneurism | 1,376 | 87 | 4 | ... |
| | | Other diseases of the circulatory system | 9,629 | 678 | 20 | 2 |
| | 3 | Laryngitis | 798 | 59 | 1 | ... |
| | | Bronchitis | 7,611 | 547 | 1 | 1 |
| | | Pleurisy | 1,410 | 64 | 3 | ... |
| | | Pneumonia | 10,335 | 508 | 7 | 3 |
| | | Congestion of the lungs, pulmonary apoplexy | 2,186 | 222 | 3 | ... |
| | | Asthma | 636 | 40 | 1 | ... |
| | | Other diseases of the respiratory system | 1,414 | 64 | 3 | ... |
| | 4 | Gastritis | 2,410 | 149 | 1 | ... |
| | | Enteritis | 4,740 | 193 | 5 | ... |
| | | Peritonitis | 1,450 | 80 | 6 | ... |
| | | Ascites | 412 | 12 | ... | 1 |
| | | Ulceration of intestines | 368 | 13 | ... | ... |
| | | Hernia | 370 | 13 | ... | ... |
| | | Ileus | 719 | 39 | ... | ... |
| | | Intussusception | 158 | 15 | ... | ... |
| | | Stricture of intestines | 67 | 6 | ... | ... |
| | | Fistula | 39 | 1 | ... | ... |
| | | Stomach diseases undefined | 1,212 | 87 | ... | ... |
| | | Pancreas disease | 13 | ... | ... | ... |
| | | Hepatitis | 2,075 | 96 | 1 | ... |
| | | Jaundice, gallstone | 801 | 57 | 1 | ... |
| | | Liver disease undefined | 3,489 | 230 | 2 | ... |
| | | Spleen disease | 84 | 6 | ... | ... |
| | 5 | Nephritis | 326 | 26 | ... | ... |
| | | Ischuria | 58 | 5 | ... | ... |
| | | Nephria | 802 | 91 | 1 | ... |
| | | Diabetes | 199 | 18 | ... | ... |

* 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.*

(25½ Years : 1853 to 1878 ; and Year 1879.)

| Class. | Order. | Causes of Death. | Number of Deaths. | | | |
|--------|--------|-------------------------------------------------|----------------------------|------------|----------|-------------|
| | | | 25½ Years; 1853-1878 | Year 1879. | | |
| | | | | Total * | Chinese. | Aborigines. |
| | | DISEASES, ETC.—<i>continued.</i> | | | | |
| III. | 5 | Stone, gravel | 88 | 2 | ... | ... |
| | | Cystitis | 256 | 44 | 1 | ... |
| | | Other diseases of the urinary organs | 988 | 79 | 1 | ... |
| | 6 | Ovarian dropsy | 94 | 7 | ... | ... |
| | | Other diseases of the generative organs | 356 | 17 | 1 | ... |
| | 7 | Arthritis | 125 | 4 | ... | ... |
| | | Ostitis, periostitis | 34 | 4 | ... | ... |
| | | Other diseases of the locomotive system | 464 | 16 | ... | ... |
| | 8 | Phlegmon, whitlow | 49 | 2 | ... | ... |
| | | Ulcer | 164 | 14 | ... | ... |
| | | Other diseases of the skin | 329 | 17 | 4† | ... |
| IV. | 1 | Premature birth... .. | 4,717 | 294 | ... | ... |
| | | Cyanosis | 307 | 25 | ... | ... |
| | | Spina bifida | 212 | 9 | ... | ... |
| | | Other malformations | 631 | 29 | ... | ... |
| | | Teething | 6,679 | 59 | 1 | ... |
| | | Other developmental diseases of children | 11 | ... | ... | ... |
| | 2 | Paramenia | 83 | 4 | ... | ... |
| | | Childbirth | 2,498 | 123 | ... | ... |
| | | Other developmental diseases of adults | 1 | ... | ... | ... |
| | 3 | Old age | 3,590 | 316 | 2 | 2 |
| | 4 | Atrophy and debility | 18,248 | 711 | 10 | ... |
| V. | 1 | Fractures, contusions, &c. | 6,649 | 295 | 16 | ... |
| | | Wounds | 469 | 25 | ... | ... |
| | | Burns and scalds | 2,013 | 103 | ... | ... |
| | | Sunstroke | 379 | 22 | ... | ... |
| | | Struck by lightning | 33 | 2 | ... | ... |
| | | Poison | 344 | 15 | ... | ... |
| | | Snake or insect bite | 69 | 1 | 1 | ... |
| | | Drowning | 4,384 | 171 | 2 | 1 |
| | | Suffocation | 1,451 | 47 | 2 | ... |
| | | Other or unspecified accidents | 3,756 | 10 | ... | ... |
| | 3 | Murder and manslaughter | 459 | 15 | 1 | ... |
| | 4 | Wounds | 469 | 25 | ... | ... |
| | | Poison | 295 | 20 | 1 | ... |
| | | Drowning | 304 | 15 | ... | ... |
| | | Hanging | 428 | 42 | 7 | ... |
| | | Suicide by other means | 61 | 6 | ... | ... |
| | 5 | Judicial hanging | 71 | 1 | ... | ... |
| ... | ... | Causes not specified | 1,601 | 36 | 1 | .. |

387. The next table shows the same causes of death, arranged in the order of their fatality during 1879, with the numbers who died from each cause in that year, and during the twenty-five years and a half ended with 1878, also the order of fatality of the different causes during that period :—

Causes of death in order of fatality.

* The Chinese and Aborigines are included in this column.

† All cases of leprosy.

CAUSES OF DEATH IN ORDER OF FATALITY.

(25½ Years : 1853 to 1878 ; and Year 1879.)

| Order of Fatality. | | Causes of Death in Order of Fatality, 1879. | Number of Deaths. | |
|---------------------------|---------------|---------------------------------------------------|---------------------------|---------------|
| 25½ Years : 1853-1878. | Year 1879. | | 25½ Years : 1853-1878. | Year 1879. |
| 1 | 1 | Phthisis | 19,635 | 1,058 |
| 3 | 2 | Atrophy and debility | 18,248 | 711 |
| 4 | 3 | Diarrhoea | 17,016 | 698 |
| 2 | 4 | Accidents | 19,547 | 691 |
| 8 | 5 | Diseases of the organs of circulation not classed | 9,629 | 678 |
| 11 | 6 | Bronchitis | 7,611 | 547 |
| 7 | 7 | Pneumonia | 10,335 | 508 |
| 6 | 8 | Typhoid fever, &c. | 10,608 | 438 |
| 21 | 9 | Cancer | 3,850 | 383 |
| 12 | 10 | Diphtheria | 7,497 | 337 |
| 24 | 11 | Old age | 3,590 | 316 |
| 17 | 12 | Apoplexy | 4,624 | 315 |
| 16 | 13 | Premature birth | 4,717 | 294 |
| 23 | 14 | Croup | 3,704 | 275 |
| 18 | 15 | Cephalitis | 4,180 | 274 |
| 14 | 16 | Diseases of the nervous system not classed ... | 6,353 | 268 |
| 9 | 17 | Convulsions | 9,350 | 252 |
| 25 | 18 | Diseases of the liver not classed | 3,489 | 230 |
| 29 | 19 | Congestion of lungs, pulmonary apoplexy ... | 2,186 | 222 |
| 15 | 20 | Enteritis | 4,740 | 193 |
| 19 | | Whooping-cough | 4,105 | 193 |
| 28 | 21 | Paralysis | 2,241 | 187 |
| 33 | 22 | Want of breast-milk | 1,877 | 170 |
| 26 | 23 | Childbirth and metria | 3,151 | 161 |
| 27 | 24 | Gastritis | 2,410 | 149 |
| 5 | 25 | Dysentery | 12,246 | 140 |
| 20 | 26 | Hydrocephalus | 3,947 | 120 |
| 35 | 27 | Suicide | 1,557 | 108 |
| 41 | 28 | Rheumatism | 1,196 | 105 |
| 31 | 29 | Hepatitis | 2,075 | 96 |
| 50 | 30 | Nephria | 802 | 91 |
| 39 | 31 | Aneurism | 1,376 | 87 |
| 40 | | Diseases of the stomach not classed | 1,212 | 87 |
| 36 | 32 | Peritonitis | 1,450 | 80 |
| 45 | 33 | Diseases of the urinary organs not classed ... | 988 | 79 |
| 44 | 34 | Epilepsy | 1,017 | 76 |
| 38 | 35 | Pleurisy | 1,410 | 64 |
| 37 | | Diseases of the respiratory system not classed | 1,414 | 64 |
| 43 | 36 | Malformations | 1,150 | 63 |
| 10 | 37 | Scarlatina | 8,623 | 61 |
| 30 | | Tabes mesenterica | 2,115 | 61 |
| 34 | 38 | Alcoholism | 1,691 | 60 |
| 62 | | Hydatids | 436 | 60 |
| 13 | 39 | Teething | 6,679 | 59 |
| 52 | | Laryngitis | 798 | 59 |
| 51 | 40 | Jaundice, gall-stone | 801 | 57 |
| 46 | | Erysipelas | 972 | 57 |
| 57 | 41 | Venereal diseases | 662 | 52 |
| 32 | 42 | Dropsy | 1,957 | 50 |
| 75 | 43 | Cystitis | 256 | 44 |
| 42 | 44 | Cholera | 1,193 | 43 |
| 56 | 45 | Pericarditis | 667 | 40 |
| 58 | | Asthma | 636 | 40 |
| 53 | 46 | Ileus | 719 | 39 |
| 47 | 47 | Scrofula | 967 | 35 |

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

(25½ Years: 1853 to 1878; and Year 1879.)

| Order of Fatality. | | Causes of Death in Order of Fatality, 1879. | Number of Deaths. | |
|---------------------------------------|------------|--------------------------------------------------|-----------------------|------------|
| 25½ Years: 1853-1878. | Year 1879. | | 25½ Years: 1853-1878. | Year 1879. |
| 54 | 48 | Tubercular diseases not classed | 710 | 32 |
| 49 | | Influenza, coryza, catarrh | 839 | 32 |
| 65 | 49 | Miasmatic diseases not classed | 406 | 30 |
| 73 | 50 | Nephritis | 326 | 26 |
| 70 | 51 | Tumor | 364 | 23 |
| 48 | 52 | Thrush | 939 | 22 |
| 77 | 53 | Diabetes | 199 | 18 |
| 72 | 54 | Skin diseases | 329 | 17 |
| 71 | | Diseases of the organs of generation not classed | 356 | 17 |
| 60 | 55 | Diseases of locomotive system not classed ... | 464 | 16 |
| 61 | 56 | Murder and manslaughter | 459 | 15 |
| 79 | | Gout | 151 | 15 |
| 78 | 57 | Intussusception | 158 | 15 |
| 59 | | Quinsy | 593 | 14 |
| 64 | 57 | Privation | 408 | 14 |
| 74 | | Purpura and scurvy | 262 | 14 |
| 77 | 58 | Ulcer | 164 | 14 |
| 67 | | Hernia | 370 | 13 |
| 68 | 59 | Ulceration of intestines | 368 | 13 |
| 63 | | Ascites | 412 | 12 |
| 55 | 60 | Remittent fever | 675 | 11 |
| 69 | 61 | Mortification | 365 | 9 |
| 81 | 62 | Ovarian dropsy | 94 | 7 |
| 94 | 63 | Chorea | 37 | 6 |
| 84 | | Spleen disease | 84 | 6 |
| 87 | 64 | Stricture of the intestines | 67 | 6 |
| 90 | | Ischuria | 58 | 5 |
| 82 | 65 | Ague | 88 | 5 |
| 88 | | Noma | 62 | 4 |
| 89 | 65 | Carbuncle, boil | 59 | 4 |
| 85 | | Paramenia | 83 | 4 |
| 80 | 66 | Arthritis | 125 | 4 |
| 96 | | Ostitis, periostitis | 34 | 4 |
| 22 | 66 | Measles | 3,844 | 3 |
| 91 | 67 | Phlegmon, whitlow | 49 | 2 |
| 83 | | Stone, gravel | 88 | 2 |
| 97 | 68 | Dietic diseases not classed | 27 | 1 |
| 93 | | Fistula | 39 | 1 |
| 99 | 68 | Parasitic diseases not classed | 19 | 1 |
| 90 | | Worms, &c. | 58 | 1 |
| 86 | 69 | Execution | 71 | 1 |
| 76 | | Insanity * | 255 | ... |
| 78 | ... | Diathetic diseases not classed | 169 | ... |
| 92 | ... | Chicken-pox, &c. | 40 | ... |
| 98 | ... | Small-pox | 21 | ... |
| 100 | ... | Pancreas disease | 13 | ... |
| 101 | ... | Developmental diseases of children not classed | 11 | ... |
| 102 | ... | Polypus | 9 | ... |
| 103 | ... | Glanders | 2 | ... |
| 104 | ... | Developmental diseases of adults not classed ... | 1 | ... |
| Deaths from specified causes | | | 260,529 | 12,084 |
| Deaths from unspecified causes | | | 1,601 | 36 |
| Deaths from all causes | | | 262,130 | 12,120 |

* Deaths from this cause are now usually returned under the head of "Brain disease, &c."

Death rate
from various
causes in
Victoria and
England.

388. 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 1879 and to the twenty-five years and a half ended with 1878, and the results for England and Wales to the twenty-five years ended with 1874:—

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

| Class. | Order. | Causes of Death. | Number of Annual Deaths per 100,000 of Mean Population. | | |
|--------|--------|-------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------|------------------------------------|
| | | | Victoria. | | England and Wales. |
| | | | Year 1879. | Average of 25½ Years: 1853 to 1878. | Average of 25 Years: 1850 to 1874. |
| | | All causes | 1,364·09 | 1,667·85 | 2,228·28 |
| | | Specified causes | 1,360·04 | 1,657·66 | 2,205·66 |
| | | CLASSES. | | | |
| I. | ... | Zymotic diseases | 324·03 | 513·84 | 503·87 |
| II. | ... | Constitutional diseases | 201·46 | 218·25 | 420·54 |
| III. | ... | Local diseases | 566·12 | 552·65 | 849·97 |
| IV. | ... | Developmental diseases | 176·70 | 235·27 | 355·15 |
| V. | ... | Violent deaths | 91·73 | 137·65 | 76·13 |
| | | ORDERS AND DISEASES.* | | | |
| I. | 1 | Miasmatic diseases | 279·57 | 473·24 | 478·94 |
| | | Measles | ·33 | 24·46 | 42·82 |
| | | Scarlatina | 6·86 | 54·86 | } 103·80 |
| | | Diphtheria | 37·93 | 47·70 | |
| | | Croup | 30·95 | 23·56 | 24·06 |
| | | Whooping-cough | 21·72 | 26·12 | 51·46 |
| | | Typhoid fever, &c. | 49·29 | 67·50 | 50·39† |
| | | Dysentery | 15·75 | 77·92 | 6·72 |
| | | Diarrhœa | 78·56 | 108·27 | 89·06 |
| | | Metria (<i>see</i> Childbirth and metria <i>infra</i>) | 4·27 | 4·15 | 5·99 |
| | 2 | Enthetic diseases (venereal diseases, &c.) | 5·85 | 4·22 | 7·47 |
| | 3 | Dietic diseases (privation, want of breast-milk, alcoholism, &c.) | 29·15 | 27·14 | 11·36 |
| | 4 | Parasitic diseases (thrush, hydatids, &c.) | 9·45 | 9·24 | 6·10 |
| II. | 1 | Diathetic diseases | 54·47 | 44·07 | 84·25 |
| | | Dropsy | 5·63 | 12·45 | 38·51 |
| | | Cancer, &c. | 45·69 | 26·87 | 36·92 |
| | 2 | Tubercular diseases | 146·99 | 174·17 | 336·29 |
| | | Phthisis | 119·08 | 124·93 | 256·72 |
| | | Hydrocephalus | 13·51 | 25·11 | 37·07 |

* Only some of the principal diseases are given.

† 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 1879. | Average of 25½ Years: 1853 to 1878. | Average of 25 Years: 1850 to 1874. |
| | | ORDERS AND DISEASES*—<i>continued.</i> | | | |
| III. | ... | Diseases of the systems— | | | |
| | 1 | Nervous (brain diseases, &c.) ... | 155·09 | 178·52 | 280·79 |
| | 2 | Circulatory (heart diseases, &c.) | 90·60 | 74·27 | 94·97 |
| | 3 | Respiratory (lung diseases, &c.)... | 169·27 | 155·19 | 327·31 |
| | 4 | Digestive (stomach, bowels—diseases, &c.) | 112·21 | 117·12 | 100·53 |
| | 5 | Urinary (kidney, bladder—diseases, &c.) | 29·83 | 17·29 | 27·26 |
| | 6 | Generative (ovarian dropsy, &c.) | 2·70 | 2·86 | 5·70 |
| | 7 | Locomotive (arthritis, ostitis, &c.) | 2·70 | 3·96 | 7·74 |
| | 8 | Integumentary (phlegmon, ulcer, &c.) | 3·71 | 3·45 | 5·70 |
| IV. | ... | Developmental diseases— | | | |
| | 1 | Of children (malformation, teething, &c.) | 46·82 | 79·90 | 87·01 |
| | 2 | Of adults | 14·29 | 16·43 | 11·63 |
| | | Childbirth (<i>see</i> Childbirth and metria <i>infra</i>) | 13·84 | 15·89 | 11·20 |
| | 3 | Of old people (old age) ... | 35·57 | 22·84 | 137·37 |
| | 4 | Diseases of nutrition (atrophy and debility) | 80·02 | 116·16 | 119·14 |
| V. | 1 | Accident or negligence | 77·77 | 124·37 | } 76·13 |
| | 3 | Homicide | 1·69 | 2·92 | |
| | 4 | Suicide | 12·16 | 9·91 | |
| | 5 | Execution | ·11 | ·45 | |
| I. IV. | 1 } 2 } | Childbirth and metria | 18·12 | 20·05 | 17·19 |

389. By means of the results shown in this table, it is found that over a series of years the mortality from the following causes is greater in Victoria than in England and Wales:—Zymotic diseases, notably scarlatina, diphtheria and croup, dysentery, diarrhoea, and typhoid fever; diseases of the dietic order, including want of breast-milk and alcoholism; diseases of the parasitic order, including thrush, hydatids, &c.; diseases of the stomach and bowels; violence; and the consequences of childbirth. From every other cause shown, also from all causes combined, the death rate is on the average higher in England and Wales than in Victoria. Results compared.

390. The following table shows in order of fatality the four or five principal causes of death during 1879 of males and females at various ages. Principal causes of death at various ages.

* See footnote (*), preceding page.

ages. Amongst other items of interest, it will be noticed that the complaints most fatal to infants and very young children were atrophy and diarrhœa, and to old people, heart disease and bronchitis; that typhoid fever was particularly fatal to young adults; that phthisis stood first in the case of males between 15 and 55, and in the case of females between 15 and 45; that accidents appear in the list of males at all the periods between 5 and 65, and are generally more fatal than any disease save phthisis, which is also the only cause of death which ranks before child-bearing in the case of females between 25 and 45. It may be mentioned that nearly half the total deaths of males, and more than half those of females, were set down to the causes shown:—

PRINCIPAL CAUSES OF DEATH OF MALES AND FEMALES AT VARIOUS AGES IN ORDER OF FATALITY, 1879.

| Ages. | Order of Fatality. | | | |
|--------------|--------------------|---------------|-----------------|----------------|
| | 1 | 2 | 3 | 4 |
| MALES. | | | | |
| Under 1 year | Atrophy | Diarrhœa | Premature birth | Convulsions |
| 1 to 5 years | Croup | Diarrhœa | Diphtheria | Bronchitis |
| 5 to 10 " | Diphtheria | Croup | Typhoid fever | Cephalitis |
| 10 to 15 " | Accidents | Accidents | | Laryngitis |
| 15 to 25 " | Phthisis | Typhoid fever | Diphtheria | Pneumonia |
| 25 to 35 " | Phthisis | Accidents | Typhoid fever | Heart disease |
| 35 to 45 " | Phthisis | Accidents | Heart disease | Typhoid fever |
| 45 to 55 " | Phthisis | Heart disease | Accidents | |
| 55 to 65 " | Heart disease | Phthisis | Cancer | Apoplexy |
| 65 to 75 " | Heart disease | Old age | Apoplexy | Accidents |
| 75 & upwards | Old age | Bronchitis | Heart disease | Bronchitis |
| FEMALES. | | | | |
| Under 1 year | Atrophy | Diarrhœa | Premature birth | Bronchitis |
| 1 to 5 years | Croup | Diphtheria | Diarrhœa | Whooping-cough |
| 5 to 10 " | Diphtheria | Croup | Typhoid fever | Accidents |
| 10 to 15 " | Typhoid fever | Diphtheria | Phthisis | Heart disease |
| 15 to 25 " | Phthisis | Typhoid fever | Childbearing * | Heart disease |
| 25 to 35 " | Phthisis | Childbearing* | Heart disease | Typhoid fever |
| 35 to 45 " | Phthisis | Childbearing* | Heart disease | Cancer |
| 45 to 55 " | Cancer | Phthisis | Apoplexy | Liver disease |
| 55 to 65 " | | | Heart disease | Apoplexy |
| 65 to 75 " | Heart disease | Cancer | Apoplexy | Phthisis |
| 75 & upwards | Old age | Heart disease | Bronchitis | Cancer |
| | Old age | Bronchitis | Heart disease | Paralysis |

Zymotic diseases.

391. In 1879, as in 1878 and 1877, the mortality from zymotic diseases was below the average. This has been especially noticeable in regard to those zymotic complaints affecting children, from which, since the abatement of the epidemics which prevailed in 1875 and 1876, the mortality has not been high. In the three years named, the death rate

* Including childbirth and metria.

from zymotic diseases generally was lower than the English rate, and in 1879 it was lower than it had been in Victoria for many years. The death rate from scarlatina and diphtheria, from typhoid fever, and even from diarrhoea, were in 1879 below the English rates, which, especially as regards the last-named, is a very unusual circumstance. The zymotic diseases, from which, in 1879, the death rate was above the average in Victoria, were croup, metria (slightly), and venereal disease.

392. The following table shows the number of deaths from zymotic diseases particularly affecting children which occurred during the sixteen years ended with 1879. It will be noticed that all these complaints caused fewer deaths in 1879 than in 1878, except diphtheria, which caused about the same number in both years; that in 1879 the mortality from measles was the least since 1873, that from scarlatina was the least since 1871, that from croup was the least since 1876, that from dysentery was the least in the sixteen years, and that from diarrhoea was the least since 1876 :—

DEATHS FROM ZYMOTIC DISEASES CHIEFLY AFFECTING CHILDREN,
1864 TO 1879.

| 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 |
| Total in } 16 years } | 2,954 | 6,359 | 5,711 | 2,774 | 3,087 | 5,094 | 12,672 | 38,651 |

393. Deaths from typhoid fever in 1879 numbered about 100 less than in either 1878 or 1877, but were still above the average of the last thirteen years. If, however, they be compared with population, they will be found to have been below the average. The following table shows the number of deaths from typhoid fever, and their proportion to the population, during each of the past thirteen years :—

DEATHS FROM TYPHOID FEVER, 1867 TO 1879.

| Year. | Deaths from Typhoid Fever. | |
|-------------|----------------------------|-----------------------------------|
| | Total Number. | Number per 10,000 Persons Living. |
| 1867 | 455 | 7·00 |
| 1868 | 295 | 4·39 |
| 1869 | 360 | 5·17 |
| 1870 | 416 | 5·86 |
| 1871 | 269 | 3·64 |
| 1872 | 323 | 4·24 |
| 1873 | 282 | 3·61 |
| 1874 | 470 | 5·88 |
| 1875 | 455 | 5·58 |
| 1876 | 375 | 4·51 |
| 1877 | 532 | 6·26 |
| 1878 | 532 | 6·12 |
| 1879 | 438 | 4·93 |
| Mean | 400 | 5·17 |

Typhoid fever in England and Wales.

394. 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 1875, 1876, and 1877, respectively, it fell to 4·85, 3·96, and 3·61 per ten thousand,* or much lower than it is here.

Zymotic diseases in Australasian colonies.

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

ORDER OF COLONIES IN REFERENCE TO MORTALITY FROM ZYMOTIC DISEASES.

| Colony. | Years over which the Observations extend. | Deaths from Zymotic Diseases per 10,000 Persons Living. |
|---------------------------|-------------------------------------------|---------------------------------------------------------|
| 1. Queensland | 1868 to 1878 | 53·8 |
| 2. Victoria | 1868 to 1878 | 40·1 |
| 3. South Australia | 1869 to 1878 | 39·1 |
| 4. New South Wales | 1868 to 1878 | 38·1 |
| 5. New Zealand | 1872 to 1878 | 33·1 |
| 6. Tasmania | 1868 to 1878 | 29·2 |

* 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.

396. Respecting the same colonies, the following information in regard to the mortality from typhoid fever is now published for the first time. This complaint appears to be more fatal in New South Wales and Queensland than it is in Victoria, but less so in South Australia, Tasmania, and New Zealand :—

DEATHS FROM TYPHOID FEVER IN AUSTRALASIAN COLONIES,
1873 TO 1878.

| 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 | 3·61 | ... | ... | 67 | 4·78 |
| 1874 ... | 470 | 5·88 | ... | ... | 78 | 5·03 |
| 1875 ... | 455 | 5·58 | 298 | 5·00 | 158 | 9·16 |
| 1876 ... | 375 | 4·51 | 401 | 6·49 | 72 | 3·91 |
| 1877 ... | 532 | 6·26 | 375 | 5·81 | 105 | 5·38 |
| 1878 ... | 532 | 6·12 | 441 | 6·50 | 197 | 9·53 |
| Total ... | 2,646 | 5·35 | 1,515 | 5·97 | 677 | 6·42 |
| | 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 |
| Total ... | 541 | 4·17 | 275 | 4·36 | 1,087* | 4·98 |

397. Under Class II., constitutional diseases, those under Order 1, diathetic diseases, were above, and those under Order 2, tubercular diseases, were below the average. The increase under the former head was due to cancer, the rate from which has of late years been much above the average, and in the last three years even exceeded the rate in England, where it is also increasing. This painful disease stood ninth in the list† in 1879, fourteenth in 1878, and eleventh in 1877, the twenty-first being its usual position. Under the latter head, both hydrocephalus and phthisis were below the average.

Constitutional diseases.

398. Deaths from phthisis in 1879, which numbered 1,058, were less than in 1878 or 1877, but greater than in any other previous year. Phthisis in Victoria is, upon the average, the most destructive of all diseases. A greater mortality in 1875 resulted from measles, and in 1876 from scarlatina, than from phthisis, but these epidemics having

Deaths from phthisis.

* This includes 56 cases set down to typhus, viz., 2 in 1878, 7 in 1877, 26 in 1876, 17 in 1875, and 4 in 1874. It is held by some medical men that true typhus does not exist in the Australasian colonies, and that in all such cases typhoid fever should have been entered as the cause of death.

† See table following paragraph 387 ante.

subsided, phthisis again resumed its place at the head of the list of causes of death.*

399. The annual death rate from phthisis, as I have often pointed out,† has for years past never been so low as 11, nor so high as 13, per 10,000 persons living. In 1879 the rate was 11·9 per 10,000, which was lower than in any year since 1872, or than in any other of the years named in the table except 1871, 1868, and 1864. The following figures express the number of deaths from phthisis and their proportion to the population during each of the last sixteen years :—

DEATHS FROM PHTHISIS, 1864 TO 1879.

| Year. | Deaths from Phthisis. | | Year. | Deaths from Phthisis. | |
|----------|-----------------------|------------------------------------|------------|-----------------------|------------------------------------|
| | Total Number. | Number per 10,000 Persons Living.‡ | | Total Number. | Number per 10,000 Persons Living.‡ |
| 1864 ... | 686 | 11·64 | 1874 ... | 1,011 | 12·66 |
| 1865 ... | 741 | 12·02 | 1875 ... | 1,027 | 12·60 |
| 1866 ... | 782 | 12·33 | 1876 ... | 1,010 | 12·16 |
| 1867 ... | 793 | 12·20 | 1877 ... | 1,088 | 12·80 |
| 1868 ... | 746 | 11·11 | 1878 ... | 1,124 | 12·93 |
| 1869 ... | 893 | 12·81 | 1879 ... | 1,058 | 11·90 |
| 1870 ... | 888 | 12·51 | | | |
| 1871 ... | 841 | 11·38 | Total in { | | |
| 1872 ... | 876 | 11·51 | 16 years } | 14,509 | 12·17 |
| 1873 ... | 945 | 12·11 | | | |

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

400. A comparison with the deaths caused by any complaint with the whole population, although the method on which the calculations of death rate quoted in the statistical reports of the United Kingdom and other countries are based, is open to the same objection as that which applies to a comparison of the deaths from all causes with the population, viz., that there may be an apparent increase not warranted by facts, but which has resulted only from a difference in the relative proportions of the numbers living at different ages, since all complaints, as well as the mortality generally, affect persons more at one age than at another. Until after the census has been taken it will not be known whether the true death rate from phthisis is increasing or not. If there are more persons than formerly between 15 and 45 years of age, that being the period of life at which phthisis is most prevalent, it is not so; but if there are fewer, although the proportion appears steady as compared with the whole population, or may even appear to be decreasing, as in the case of the year under review, it is actually increasing.

* See table following paragraph 387 ante.

† See my remarks upon the subject of phthisis in this colony in the *Victorian Year-Book*, 1873, paragraphs 320 to 322; in the *Victorian Year-Book*, 1874, paragraphs 512 and 513; in the *Victorian Year-Book*, 1875, paragraphs 362 and 363; and in the *Victorian Year-Book*, 1876-7, paragraphs 197 to 203.

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

401. As the Victorian-born section of the population must comprise a larger proportion of persons who have not yet reached the age at which a predisposition to phthisis may be expected to show itself* than the section composed of other nationalities, the death rate from this complaint is naturally much lower in the former than in the latter. The following table shows the number of deaths and the death rate from phthisis of Victorians and others during the last nine years. It will be observed that the death rate of the former is steadily increasing from year to year, whilst that of the latter generally averages from 20 to 22 per 10,000 :—

Deaths of Victorians from phthisis.

DEATHS FROM PHTHISIS, 1871 TO 1879.—VICTORIANS AND OTHER NATIONALITIES.

| Year. | Deaths from Phthisis of Persons Born in Victoria. | | Deaths from Phthisis of Persons Born elsewhere. | |
|-------------|---------------------------------------------------|---------------------------------------|-------------------------------------------------|----------------------------------------------------------|
| | Number. | Number per 10,000 Victorians Living.† | Number. | Number per 10,000 Persons of other Nationalities Living. |
| 1871 | 81 | 2·42 | 760 | 18·82 |
| 1872 | 97 | 2·72 | 779 | 19·25 |
| 1873 | 129 | 3·42 | 816 | 20·22 |
| 1874 | 137 | 3·45 | 874 | 21·74 |
| 1875 | 209 | 5·04 | 818 | 20·42 |
| 1876 | 150 | 3·47 | 860 | 21·61 |
| 1877 | 197 | 4·37 | 891 | 22·32 |
| 1878 | 258 | 5·50 | 866 | 21·63 |
| 1879 | 295 | 6·05 | 763 | 19·02 |

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

Ages at death from phthisis.

DEATHS FROM PHTHISIS, 1879.—AGE AT DEATH.

| Ages. | Number who Died of Phthisis. | | | Percentage of Deaths from Phthisis to those from all Causes.‡ |
|-------------------------|------------------------------|----------|--------|---------------------------------------------------------------|
| | Males. | Females. | Total. | |
| Under 5 years ... | 31 | 30 | 61 | 1·31 |
| 5 to 10 „ ... | 1 | 7 | 8 | 1·60 |
| 10 „ 15 „ ... | 4 | 19 | 23 | 8·21 |
| 15 „ 25 „ ... | 88 | 111 | 199 | 24·81 |
| 25 „ 35 „ ... | 111 | 116 | 227 | 29·83 |
| 35 „ 45 „ ... | 133 | 91 | 224 | 20·22 |
| 45 „ 55 „ ... | 142 | 49 | 191 | 13·45 |
| 55 „ 65 „ ... | 82 | 22 | 104 | 8·46 |
| 65 „ 75 „ ... | 12 | 5 | 17 | 2·06 |
| 75 years and upwards... | 3 | 1 | 4 | ·73 |
| Total ... | 607 | 451 | 1,058 | 8·73 |

* Of the 295 Victorians who died of phthisis during 1879, 61 were under 5 years of age, 7 were between 5 and 10, 22 were between 10 and 15, 55 were between 15 and 20, 88 (1 being an Aboriginal) were between 20 and 25, 33 (1 being an Aboriginal) were between 25 and 30, 20 were between 30 and 35, and 7 (1 being an Aboriginal) were between 35 and 40, and 2 (1 being an Aboriginal) were over 40.

† For populations on which these calculations are based, see paragraph 55 ante. The number of persons of other nationalities for each year has been obtained by deducting the Victorians.

‡ See table following paragraph 369 ante.

Ages at which phthisis is most fatal.

403. It will be observed that the mortality from this complaint is highest between the ages of 25 and 45, but that it is also high between 15 and 25 and between 45 and 65. The value of these facts is, however, affected by the relative proportions of those living at the different ages, which is not at present accurately known.

Period of illness and residence.

404. The following table shows the numbers who died of phthisis in Victoria during 1879, also their ages and duration of illness contrasted with the length of time they had lived in the Australasian colonies* :—

DEATHS FROM PHTHISIS IN VICTORIA, 1879.—AGES AT DEATH AND DURATION OF ILLNESS, CONTRASTED WITH PERIOD OF RESIDENCE IN AUSTRALASIA.

| | | Period of Residence in Australasian Colonies. | | | | | | | | | | | | | Total Deaths from Phthisis. | | | |
|--------------------------------|-------------------|-----------------------------------------------|----------------|-----------------|---------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------------|-----------------------------|-----------------------------|--------------|-------------------------------------------|-------|
| | | Under 1 month. | 1 to 6 months. | 6 to 12 months. | 1 to 2 years. | 2 to 3 years. | 3 to 4 years. | 4 to 5 years. | 5 to 10 years. | 10 to 15 years. | 15 to 20 years. | 20 to 25 years. | 25 years and upwards. | Not known (not Australian). | | Born there.† | Not known (no information re birthplace). | |
| Ages at Death. | Under 5 years | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 61 | ... | 61 | |
| | 5 to 10 " | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 | 1 | 8 | |
| | 10 " 15 " | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 22 | ... | 23 | |
| | 15 " 25 " | ... | 5 | 4 | 4 | 1 | ... | 2 | 7 | 5 | 7 | 3 | ... | ... | 157 | 4 | 199 | |
| | 25 " 35 " | ... | 1 | 3 | 2 | 8 | 7 | 6 | 6 | 10 | 27 | 22 | 26 | 23 | 4 | 78 | 4 | 227 |
| | 35 " 45 " | ... | ... | 4 | ... | 2 | 1 | 2 | ... | 12 | 26 | 48 | 54 | 39 | 10 | 18 | 8 | 224 |
| | 45 " 55 " | ... | ... | ... | ... | 1 | ... | ... | ... | 5 | 8 | 17 | 66 | 75 | 12 | 1 | 6 | 191 |
| | 55 " 65 " | ... | ... | ... | ... | ... | ... | ... | ... | 3 | 1 | 8 | 30 | 49 | 4 | 1 | 8 | 104 |
| | 65 " 75 " | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 3 | 11 | 1 | ... | ... | ... | 17 |
| 75 and upwards | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 2 | 1 | ... | ... | ... | 4 | |
| Total ... | | ... | 1 | 12 | 6 | 15 | 9 | 8 | 8 | 38 | 69 | 103 | 182 | 199 | 32 | 345 | 31 | 1,058 |
| Duration of Illness. | Under 1 month | ... | ... | 1 | ... | ... | 1 | 2 | 1 | ... | 4 | 5 | 13 | 9 | 2 | 25 | ... | 63 |
| | 1 to 3 months | ... | 1 | 2 | ... | ... | ... | ... | ... | 3 | 4 | 7 | 13 | 7 | ... | 37 | 1 | 75 |
| | 3 " 6 " | ... | ... | 1 | ... | 1 | ... | ... | 1 | 1 | 5 | 7 | 11 | 17 | 1 | 60 | ... | 105 |
| | 6 " 12 " | ... | ... | 2 | ... | 1 | 1 | ... | 1 | 9 | 9 | 23 | 31 | 35 | 5 | 56 | 2 | 175 |
| | Some months | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | 2 | ... | ... | ... | ... | 4 |
| | 1 to 2 years | ... | ... | 2 | 2 | 1 | 1 | 2 | 1 | 12 | 14 | 14 | 28 | 33 | 4 | 66 | 3 | 183 |
| | 2 " 3 " | ... | ... | 1 | ... | 2 | 2 | 1 | 1 | 3 | 10 | 12 | 27 | 32 | 3 | 35 | ... | 129 |
| | 3 " 4 " | ... | ... | ... | ... | 1 | ... | 1 | ... | 1 | 3 | 7 | 7 | 8 | ... | 11 | 1 | 40 |
| | 4 " 5 " | ... | ... | ... | ... | 1 | ... | ... | ... | 2 | 1 | 4 | 7 | 4 | ... | 2 | ... | 21 |
| | 5 " 10 " | ... | ... | ... | 1 | 2 | 1 | ... | ... | 1 | 2 | 1 | 4 | 8 | ... | 8 | ... | 28 |
| | 10 years and over | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 1 | ... | 2 | ... | 5 |
| Some years, long standing, &c. | ... | ... | ... | ... | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 8 | ... | 10 | 3 | 32 | |
| Unknown | ... | ... | 3 | 3 | 6 | 2 | ... | 2 | 3 | 15 | 21 | 35 | 37 | 17 | 33 | 21 | 198 | |

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

† Including 295 natives (4 being Aborigines) of Victoria, 10 of New South Wales, 13 of South Australia, 1 of Western Australia, 22 of Tasmania, and 4 of New Zealand.

405. Examining this table, it is found, in regard to the persons of whom full particulars are given,* that in all but 24 instances the period of residence in the Australasian colonies was greater than the duration of illness, and therefore that the complaint must have been contracted there; also, that in no less than 345 cases, or 33 per cent. of the whole, the person dying was a native of the colonies. These facts, combined with similar results in previous years, unhappily completely destroy the theory that phthisis is a disease which cannot be generated in Australasia.

Period of residence greater than time of illness.

406. This point is more clearly brought out by a simple calculation, whereby it is found that, whereas the average duration of illness of those who died of phthisis was only about 1½ years, the average period of residence of those not born in the Australasian colonies was nearly 19½ years.

Average time of residence and of illness.

407. In 1879 the victims to phthisis respecting whom information was given in the registers as to whether the disease was contracted in the colonies were much more numerous in Melbourne and suburbs than in the extra-metropolitan districts of Victoria, the numbers being 464 and 385 respectively. Of those who died in Melbourne and suburbs, 449, or 97 per cent., and of those who died in other places, 376, or 98 per cent., are said to have been first attacked by the disease in Australasia. These facts are shown by the following table:—

Phthisis contracted in Australasia and elsewhere.

DEATHS FROM PHTHISIS, 1879.—DISEASE CONTRACTED IN AUSTRALASIA AND ELSEWHERE.

| Place where Disease was Contracted. | Persons who Died of Phthisis.† | | | | | |
|-------------------------------------|--------------------------------|-------------|----------------------------------|-------------|--------------------|-------------|
| | In Melbourne and Suburbs. | | In Extra-Metropolitan Districts. | | Total in Victoria. | |
| | Number. | Percentage. | Number. | Percentage. | Number. | Percentage. |
| Australasian colonies | 449 | 96·8 | 376 | 97·7 | 825 | 97·2 |
| Elsewhere ... | 15 | 3·2 | 9 | 2·3 | 24 | 2·8 |
| Total ... | 464 | 100·0 | 385 | 100·0 | 849 | 100·0 |

408. The period of residence in the Australasian colonies of those who died of phthisis in Victoria is available for four years. The following are the collected results of this period, omitting those of whom the term of residence was not stated:—

Time of residence in Australasia.

* Although in 198 cases, or nearly a fifth of the whole, the duration of illness was unspecified, only 16 of these had resided in the colonies for less than five years, so that the great majority of them also acquired the complaint in Australasia.

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

DEATHS FROM PHTHISIS,* 1876 TO 1879.—PERIOD OF RESIDENCE
IN AUSTRALASIA.

| Period of Residence in Australasian Colonies. | Numbers who Died of Phthisis. | | | | | |
|--------------------------------------------------|-------------------------------|-------|-------|-------|----------------------------|-------------------------|
| | 1876. | 1877. | 1878. | 1879. | Total in four Years. | Proportion per Cent. |
| Under 1 month | 6 | 4 | 8 | 1 | 19 | ·47 |
| 1 month to 1 year | 25 | 20 | 23 | 18 | 86 | 2·15 |
| 1 year to 2 years | 18 | 11 | 11 | 15 | 55 | 1·38 |
| 2 years to 5 years | 33 | 39 | 40 | 25 | 137 | 3·43 |
| 5 years and upwards | 672 | 682 | 650 | 591 | 2,595 | 64·91 |
| Born there | 193 | 252 | 316 | 345† | 1,106 | 27·66 |
| Total | 947 | 1,008 | 1,048 | 995 | 3,998 | 100·00 |

Natives and
others who
died from
phthisis.

409. It will be seen that out of 3,998 persons who died of phthisis in Victoria during the four years ended with 1879, 1,106, or 28 per cent., were born in Australasia; that 2,595, or 65 per cent., more had resided there for upwards of five years; that 137, or a further 3 per cent., had lived there for upwards of two years; and that only 160, or about 4 per cent., had lived there for less than two years.

Phthisis in
Melbourne
and
country.

410. 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 nineteen years:—

DEATHS FROM PHTHISIS PER 10,000 PERSONS LIVING IN MELBOURNE
AND COUNTRY DISTRICTS, 1861 TO 1879.

| Year. | Melbourne and Suburbs. | Extra- Metropolitan Districts. | Year. | Melbourne and Suburbs. | Extra- Metropolitan Districts. |
|----------|------------------------------|--------------------------------------|----------|------------------------------|--------------------------------------|
| 1861 ... | 23·44 | 10·59 | 1872 ... | 18·69 | 8·49 |
| 1862 ... | 24·64 | 8·70 | 1873 ... | 20·51 | 8·53 |
| 1863 ... | 23·71 | 8·83 | 1874 ... | 22·04 | 8·61 |
| 1864 ... | 20·08 | 8·65 | 1875 ... | 21·46 | 8·80 |
| 1865 ... | 22·11 | 8·47 | 1876 ... | 22·46 | 7·80 |
| 1866 ... | 20·42 | 9·43 | 1877 ... | 22·74 | 8·64 |
| 1867 ... | 21·56 | 8·77 | 1878 ... | 22·62 | 8·88 |
| 1868 ... | 20·83 | 7·50 | 1879 ... | 21·77 | 7·71 |
| 1869 ... | 23·87 | 8·66 | | | |
| 1870 ... | 22·49 | 8·62 | | | |
| 1871 ... | 22·08 | 7·17 | Means | 21·97 | 8·57 |

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

† Including four Aboriginal natives of Victoria; two being males, aged 21 and 33, and two females, aged 25 and 40 respectively.

411. The death rate from phthisis in Melbourne and suburbs is not so high as in London, but approximates closely to that in the United Kingdom, which, in 1875, was 22·24, in 1876, 21·45, and in 1877, 21·01 per 10,000 persons living; but the death rate from phthisis in Ireland, which in 1877 was 19·54, and in the previous ten years averaged 18·70, per 10,000 persons living, is lower than that of Melbourne. The latter, however, is not so high as that prevailing in Scotland, which, in 1873 was 24·6, and in 1874, 25·5 per 10,000 persons living.

Phthisis in Melbourne and United Kingdom.

412. Phthisis in Victoria, during the last four years, proved more fatal to males than to females; females in that period having died of it in the proportion of about 74 to 100 males, whereas in the population females existed in the proportion of 84 to 100 males. It is probable, however, that males of the phthisical ages bore a higher proportion to the total number of males living in the colony than females at those ages bore to the total number of females.

Sex of those who died from phthisis.

413. Of the Chinese who died in Victoria in 1879, 22, or 12 per cent., fell victims to phthisis. Of those of all nationalities who died, the proportion from this complaint was something under 9 per cent.; but it must be remembered that the Chinese in Victoria, with the exception of a very small number of children and old people, are all at the ages at which attacks of phthisis are most common.

Phthisis among Chinese.

414. Four deaths of Aborigines in 1879 were set down to phthisis, or 22 per cent. of the whole number recorded. Mr. Henry Jennings, Vice-Chairman of the Board for the Protection of the Aborigines, in his report dated 1st July 1879,* says—"Lung disease" (with which he probably includes phthisis) "is the chief cause of the death of the Aborigines, who, when once affected, very seldom recover;" and Mr. Richard Bennet, in an article entitled *Some Account of Central Australia*,† says, with reference to the Australian Aborigines generally—"From my experience among the blacks I believe nine-tenths of them die of consumption."

Phthisis among Aborigines.

415. The rate of mortality from phthisis would appear by the calculations in the following table, which is now published for the first time, to have been, over a series of years, higher in Victoria than in any other of the Australasian colonies. The figures of the other colonies in the several years exhibit more variation than those of Victoria, and in Queensland the rate exceeded 13 per 10,000 on two occasions, once reaching above 14 per 10,000 ‡ :—

Phthisis in Australasian colonies.

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

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

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

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES,
1873 TO 1878.

| 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 | 12·11 | ... | ... | 145 | 10·35 |
| 1874 ... | 1,011 | 12·66 | ... | ... | 163 | 10·51 |
| 1875 ... | 1,027 | 12·60 | 614 | 10·31 | 228 | 13·22 |
| 1876 ... | 1,010 | 12·16 | 616 | 9·96 | 260 | 14·12 |
| 1877 ... | 1,088 | 12·80 | 597 | 9·24 | 225 | 11·53 |
| 1878 ... | 1,124 | 12·93 | 652 | 9·62 | 263 | 12·72 |
| Total... | 6,205 | 12·55 | 2,479 | 9·77 | 1,284 | 12·19 |
| | 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 |
| Total... | 1,237 | 9·54 | 674 | 10·68 | 1,774 | 8·13 |

Local dis-
eases.

416. The death rate under Class III., local diseases, was above the average. This arises from the increased mortality from those classed as diseases of the circulatory, respiratory, urinary, and integumentary systems. Under the first of these the mortality from heart disease was, as in the previous year, much above the average, and rose from the eighth—its usual position—to the fifth place on the list of causes of death.* Under diseases of the respiratory system, the two most fatal complaints, pneumonia and bronchitis, together caused over 1,000 deaths in 1879, and stood respectively sixth and seventh on the list. In the same year the death rate from urinary diseases was half as high again as the average, and even exceeded the rate prevailing in England and Wales. On the other hand, the death rate from diseases of the nervous, digestive, generative, and locomotive systems was, both in 1878 and 1879, below the average.

Develop-
mental
diseases.

417. 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 only, Order 4, was much below the average. The death rate from those peculiar to adults, Order 4, was slightly below the average, but the death rate from old age, Order 3, was much

* See table following paragraph 387 ante.

above the average. Premature birth—the principal cause of death in 1879 under Order 1—caused 294 deaths, which number gives a proportion of 9 per cent. of the total deaths under 1 year, and amounts to rather more than 1 per cent. of the total births recorded. The principal diseases under Orders 2 and 4—atrophy and childbirth—will be referred to shortly.*

418. Deaths under the head of atrophy and debility, although always numerous, were in 1879, as in the three previous years, below the average. Atrophy and debility. The mortality under this head is almost entirely confined to young children and infants—thus, of the 711 set down thereto in 1879, 639 were under 5 years, 585 were under 1 year, and 282 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 thirteen years ended with 1879 :—

DEATHS FROM ATROPHY AND DEBILITY, 1867 TO 1879.

| Year. | Males. | Females. | Total. |
|----------------------------|--------|----------|--------|
| 1867 | 399 | 347 | 746 |
| 1868 | 337 | 328 | 665 |
| 1869 | 386 | 337 | 723 |
| 1870 | 422 | 368 | 790 |
| 1871 | 368 | 311 | 679 |
| 1872 | 354 | 338 | 692 |
| 1873 | 378 | 336 | 714 |
| 1874 | 402 | 337 | 739 |
| 1875 | 413 | 349 | 762 |
| 1876 | 344 | 305 | 649 |
| 1877 | 344 | 304 | 648 |
| 1878 | 389 | 311 | 700 |
| 1879 | 407 | 304 | 711 |
| Total in thirteen years... | 4,943 | 4,275 | 9,218 |

419. Notwithstanding the proportions of the sexes of the 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. Sex of those who died of atrophy, &c. During the whole period of thirteen years, 87 females died of these complaints to every 100 males.

* See next paragraph, and paragraph 434 post

Violent
deaths.

420. Deaths from external causes, Class V., were much below the average. Of the 815 violent deaths recorded in Victoria during 1879, 691, or 85 per cent., were ascribed to accident; 15, or 2 per cent., to homicide; 108, or 13 per cent., to suicide; and 1 to execution. Deaths from accidents were formerly more numerous than those from any single disease, but in 1879 they were less than the deaths caused by either phthisis, atrophy, or diarrhoea; 43 per cent. of these deaths were due to fractures, and 25 per cent. to drowning. Homicides were below, but suicides were above, the average; only twice in the last thirteen years did the number of the latter exceed 100, viz., in 1876 and in the year under review.

Violent
deaths in
detail.

421. 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 1879 and the previous decenniad, the sexes of those who died being distinguished:—

VIOLENT DEATHS, 1869 TO 1878.

| Causes of Death. | Year 1879. | | | Ten Years: 1869 to 1878. | | |
|--------------------------|------------|----------|--------|--------------------------|----------|--------|
| | Males. | Females. | Total. | Males. | Females. | Total. |
| Accidents:— | | | | | | |
| Fractures and contusions | 272 | 23 | 295 | 3,015 | 247 | 3,262 |
| Gunshot wounds ... | 17 | ... | 17 | } 214 | 35 | 249 |
| Cuts, stabs, &c. ... | 6 | 2 | 8 | | | |
| Burns and scalds ... | 42 | 61 | 103 | 371 | 481 | 852 |
| Sunstroke ... | 18 | 4 | 22 | 142 | 59 | 201 |
| Lightning ... | 2 | ... | 2 | 21 | 5 | 26 |
| Poison ... | 8 | 7 | 15 | 128 | 58 | 186 |
| Snake, insect—bite ... | 1 | ... | 1 | 27 | 13 | 40 |
| Drowning ... | 137 | 34 | 171 | 1,637 | 391 | 2,028 |
| Suffocation ... | 28 | 19 | 47 | 454 | 220 | 674 |
| Others ... | 5 | 5 | 10 | 88 | 23 | 111 |
| Total ... | 536 | 155 | 691 | 6,097 | 1,532 | 7,629 |
| Homicide ... | 9 | 6 | 15 | 133 | 75 | 208 |
| Suicide:— | | | | | | |
| Gunshot wounds ... | 8 | ... | 8 | 62 | 1 | 63 |
| Cuts, stabs, &c. ... | 13 | 4 | 17 | 152 | 18 | 170 |
| Poison ... | 16 | 4 | 20 | 137 | 47 | 184 |
| Drowning ... | 14 | 1 | 15 | 134 | 74 | 208 |
| Hanging ... | 39 | 3 | 42 | 193 | 19 | 212 |
| Otherwise ... | 6 | ... | 6 | 26 | 4 | 30 |
| Total ... | 96 | 12 | 108 | 704 | 163 | 867 |
| Execution ... | 1 | ... | 1 | 25 | ... | 25 |
| Grand Total ... | 642 | 173 | 815 | 6,959 | 1,770 | 8,729 |

422. During the eleven years ended with 1879, 75,625 males and 55,987 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 11 died of an accident; 1 in every 533 was a victim to homicide; 1 in every 95 committed suicide; and 1 in every 2,909 was executed. Of the females, 1 in every 29 died a violent death; 1 in every 33 died of an accident; 1 in every 691 died by the hand of another; 1 in every 320 committed suicide; but, happily, not one was executed.

Violent deaths in proportion to population.

423. Males are much more subject to violent deaths than females. Of those who so died in 1879, 642, or 79 per cent., belonged to the male, and 173, or 21 per cent., to the female sex.

Violent deaths of males and females.

424. Omitting fractions, it may be roughly stated that, where 1 female dies a violent death in Victoria, 4 males die violent deaths; where 1 female dies of an accident, 4 males die of accidents; where 1 female is murdered, about 2 males are murdered; where 1 female commits suicide, 4 males do so. Only 1 woman has been executed in the colony since its first settlement; but in the eleven years to which reference is made in the table 26 males were executed.

Violent deaths: proportion of males and females.

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

Burns and scalds.

426. One hundred and eight persons took their own lives in 1879, and 87 in the previous year. During the ten years ended with 1878 the mean annual number of deaths by suicide was 86.

Suicidal deaths.

427. Hanging is the most common mode by which men commit suicide, cutting or stabbing the next, drowning and taking poison with almost equal frequency the next, shooting the next. Females most frequently take their lives by drowning, next so by taking poison, next by stabbing or hanging, and only once in the 175 cases named in the table by shooting.

Modes of committing suicide.

428. Suicide frequently occurs amongst the Chinese. Eight men of this race committed that act in 1879, viz., 1 by poisoning with opium, and the remainder by hanging. The total number of Chinese in the colony is not accurately known; but those who committed suicide during the year were in the proportion of 1 to every 22 who died from all causes. Amongst European males over 15 years of age, 1 suicide occurred in the same period to every 44 deaths from all causes.

Suicides of Chinese.

Suicides in
Australasian
colonies.

429. 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 six years ended with 1878 recorded in all the Australasian colonies except Western Australia :—

DEATHS FROM SUICIDE IN AUSTRALASIAN COLONIES,
1873 TO 1878.

| 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 | 1·24 | 41 | ·75 | 22 | 1·57 |
| 1874 ... | 97 | 1·21 | 64 | 1·12 | 10 | ·64 |
| 1875 ... | 91 | 1·12 | 55 | ·92 | 23 | 1·33 |
| 1876 ... | 100 | 1·20 | 61 | ·99 | 24 | 1·30 |
| 1877 ... | 92 | 1·08 | 66 | 1·02 | 27 | 1·38 |
| 1878 ... | 87 | 1·00 | 48 | ·71 | 29 | 1·40 |
| Total ... | 564 | 1·14 | 335 | ·92 | 135 | 1·28 |
| | 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 |
| Total ... | 106 | ·82 | 42 | ·67 | 180 | ·82 |

Proportion
of suicides
in different
colonies.

430. 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 six years named in the table.

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

Violent deaths in European countries.

DEATH RATE FROM VIOLENCE IN EUROPEAN COUNTRIES AND VICTORIA.*

| Countries. | Proportion to 100,000 Living of Deaths from— | | | |
|--------------------------|----------------------------------------------|--------------------------|-----------|----------|
| | Violence of all kinds. | Accident and Negligence. | Homicide. | Suicide. |
| 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 |
| <hr/> Victoria | 91·7 | 77·8 | 1·7 | 12·2 |

432. 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-one years ended with 1879, embracing the whole period of the existence of railways in Victoria :—

Railway accidents.

* The proportions have been calculated upon the occurrences in Norway during 1873, in Scotland during 1875, in Finland during 1874, in Prussia during 1875, in Victoria during 1879, and in other countries during 1876.

DEATHS AND INJURIES FROM RAILWAY ACCIDENTS, 1859 TO 1879.

| 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. |
| PERSONS KILLED. | | | | | | | | | | |
| 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 |
| Total killed | 155 | ... | 1 | 1 | 14 | 65 | 79 | 8 | 58 | 9 |
| 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 |
| Total injured | 294 | 116 | 10 | 126 | 40 | 95 | 135 | 5 | 18 | 10 |

Railway passengers and servants killed and injured.

433. It will be observed that, in the whole period of twenty-one years, exclusive of accidents at crossings or to trespassers, 155 persons were killed and 294 were injured on the State lines of railway, and that 66 of the former and 105 of the latter met their death or injury in consequence of their own misconduct or want of caution. Only 1 passenger was killed throughout the period, but as many as 79 railway or contractors' servants were killed; the former, and all but 14 of the latter, having been so in consequence of their own carelessness. The passengers injured numbered 126, and the railway servants only 9 more; as many as 95 of the latter, but only 10 of the former, suffered from their own action. At crossings only 8 persons were killed and 5 injured, which must be considered very small numbers, taking into account, the many level crossings on the lines. As many as 58 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.

434. The death rate from a given complaint is usually ascertained by comparing the number of deaths from it with the number of persons living, but the death rate of women in childbed is better realized by comparing the number of deaths of parturient women with the total number of births. Such deaths are classified in two ways. If the death is supposed to occur merely from the consequences of child-bearing without specific disease, it is set down as of Childbirth, Class IV., Order 2; but, if it should arise from puerperal fever, it is placed under the head of Metria, Class I., Order 1. The deaths from child-bearing have been more numerous in proportion to the births during the last seven years than they were previously; but, in 1879, they were less than in any year since 1872. The following are the deaths and death rate from these complaints during the last sixteen years:—

Deaths in childbed.

DEATHS OF WOMEN IN CHILDBIRTH, 1864 TO 1879.

| 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 |
| Total in sixteen years | 1,914 | 582 | 2,496 | 58·70 |

435. The proportion of women dying in childbed during the whole period of sixteen years was 1 to 170 births, but in 1879 the proportion was 1 to every 166 births. In 1878, the proportion was 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 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, during 1873, 1 woman is stated to have died in childbirth to every 207 births, and in Ireland, during

Deaths in childbed in United Kingdom.

* 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.

1875, 1 to every 138 births. The former rate is not so high as, but the latter is higher than, the average rate in Victoria.

Deaths in
childbed in
Austral-
asian
colonies.

436. Deaths of lying-in women appear to be more common in Victoria than in any other Australasian colony. It should, however, be mentioned that the fact of a woman dying in childbed is not always at once discoverable from the death registers. Some medical men appear to endeavor to conceal the fact of their losing patients in this manner, and enter the cause of death as debility, exhaustion, blood-poisoning, peritonitis, &c., omitting to state that these circumstances were consequent upon childbearing until specially asked whether this was the case. The causes of death of females at childbearing ages should be carefully scrutinized and enquiries made respecting all entries which appear doubtful. It is questionable whether this is done in some of the other colonies to the same extent as 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, now published for the first time, contains a statement of the deaths recorded as having occurred from childbirth and metria in all the Australasian colonies except Western Australia during the six years ended with 1878, and the proportion of such deaths to every 10,000 children born alive in each colony:—

DEATHS FROM CHILDBIRTH AND METRIA IN AUSTRALASIAN COLONIES, 1873 TO 1878.

| 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 |
| Total... | 1,195 | 74·23 | 551 | 58·00 | 235 | 58·34 |
| | 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 |
| Total... | 249 | 51·49 | 139 | 72·73 | 452 | 50·62 |

Deaths of
women in
Lying-in
Hospital.

437. In the Melbourne Lying-in Hospital, during 1879, 638 women were confined, and 602 infants were born alive. Nine deaths of mothers occurred during or shortly after parturition. Thus 1 death of a mother occurred to every 71 deliveries, or to every 67 births.

438. 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 1879 was 14,984, and the number of deaths was 1,452. In 1878, the cases of sickness treated numbered 15,122, and the deaths 1,544. There was thus 1 death to every 10·3 cases of sickness treated in hospitals during 1879, as against 1 death to every 9·8 cases of sickness treated therein during the previous year.

Sickness and deaths in general hospitals.

439. 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 1879, and the proportion of deaths to cases in each hospital during that and the previous year :—

Death rate in each hospital.

SICKNESS AND MORTALITY IN GENERAL HOSPITALS.

| Name of Hospital. | Year 1879. | | | Percentage of Mortality to Cases treated, 1878. |
|--------------------------------|--------------------------|-------------------|-------------------------------------------|-------------------------------------------------|
| | Number of Cases treated. | Number of Deaths. | Percentage of Mortality to Cases treated. | |
| Alexandra | 16 | ... | ... | 14·81 |
| Amherst | 183 | 13 | 7·10 | 15·24 |
| Ararat* | 289 | 16 | 5·54 | 6·29 |
| Ballarat | 919 | 93 | 10·12 | 10·39 |
| Beechworth | 563 | 40 | 7·10 | 7·54 |
| Belfast* | 45 | 4 | 8·89 | 15·69 |
| Bendigo | 1,269 | 139 | 10·95 | 9·20 |
| Castlemaine | 705 | 67 | 9·50 | 7·49 |
| Clunes | 218 | 19 | 8·71 | 5·77 |
| Creswick | 264 | 23 | 8·71 | 6·94 |
| Daylesford* | 196 | 17 | 8·67 | 10·14 |
| Dunolly | 309 | 33 | 10·68 | 6·30 |
| Geelong* | 910 | 93 | 10·22 | 7·66 |
| Hamilton* | 423 | 24 | 5·67 | 4·11 |
| Heathcote | 89 | 11 | 12·36 | 9·20 |
| Horsham | 223 | 20 | 8·97 | 12·87 |
| Inglewood | 386 | 18 | 4·64 | 4·68 |
| Kilmore | 146 | 21 | 14·38 | 10·48 |
| Kyneton | 456 | 31 | 6·80 | 9·37 |
| Maldon* | 55 | 6 | 10·91 | 10·87 |
| Mansfield | 108 | 6 | 5·56 | 11·21 |
| Maryborough | 354 | 22 | 6·21 | 8·73 |
| Melbourne | 4,170 | 500 | 11·99 | 13·91 |
| Melbourne (Alfred) | 1,048 | 99 | 9·45 | 10·98 |
| Melbourne (Homœopathic) | 133 | 8 | 6·01 | ... |
| Mooroopna | 124 | 8 | 6·45 | 8·00 |
| Pleasant Creek | 348 | 37 | 10·63 | 8·82 |
| Portland* | 63 | 7 | 11·11 | 4·08 |
| Sale | 212 | 22 | 10·38 | 13·96 |
| St. Arnaud | 170 | 19 | 11·17 | 10·24 |
| Swan Hill | 140 | 9 | 6·50 | 6·88 |
| Wangaratta | 201 | 14 | 6·97 | 7·93 |
| Warrnambool* | 126 | 8 | 6·35 | 15·84 |
| Wood's Point | 123 | 5 | 4·07 | 6·80 |
| Total | 14,984 | 1,452 | 9·69 | 10·21 |

* These institutions are also benevolent asylums.

Highest and lowest death rates. 440. In proportion to the cases treated, the greatest mortality occurred in the Kilmore, Heathcote, and Melbourne Hospitals, and, with the exception of the Alexandra Hospital, where no deaths took place, the least in the Wood's Point and Inglewood Hospitals. In 1878 the rate of mortality was highest in the Warrnambool Hospital, and lowest in the Portland Hospital.

Sickness and deaths in hospital for women. 441. The patients treated in the Hospital for Diseases of Women and Children attached to the Lying-in Hospital numbered 237 in 1878, and 348 in 1879. The deaths in the same institution numbered 14 in the former, and 13 in the latter year. Therefore, 1 patient in 17 died in 1878, and 1 in 27 in 1879.

Deaths in Lying-in Hospital. 442. In the Melbourne Lying-in Hospital 555 women were confined in 1878, and 638 in 1879. Six died in the former year, and 9 in the latter. Thus, 1 woman in 93 died in 1878, and 1 woman in 71 in 1879.*

Sickness and deaths in children's hospital. 443. In the Melbourne Hospital for Sick Children 356 cases were treated, and 19 deaths occurred, in 1878; 389 cases were treated, and 25 deaths occurred, in 1879. These numbers furnish proportions of 1 death to every 19 patients in the former, and 1 death to every 16 patients in the latter year.

Sickness and deaths in benevolent asylums. 444. Cases of sickness in benevolent asylums numbered 2,554 in 1878, and 2,688 in 1879; deaths numbered 175 and 176. The deaths were thus to the cases treated in the proportion of 1 to 15 in both years.

Sickness and deaths in Immigrants' Home. 445. In the Melbourne Immigrants' Home the cases of sickness in 1878 amounted to 937, and the deaths to 74, or 1 death to every 12 cases of sickness. In 1879 the cases of sickness in this institution numbered 959, and the deaths 76, or 1 death to every 13 cases of sickness.

Sickness and deaths in orphan asylums. 446. In 1878 the cases of sickness in orphan asylums numbered 389, and the deaths 5. In 1879 these numbers were 204 and 3 respectively. Thus, in 1878, 1 death occurred to every 78 cases of sickness, and, in 1879, 1 death to every 68 cases of sickness.

Sickness and deaths in lunatic asylums. 447. In hospitals for the insane during 1878 the cases of sickness numbered 1,696, and during 1879 they numbered 2,011. The deaths amounted to 177 at the former period, and 225 at the latter, or an average of 1 death to every 10 cases of sickness in 1878, and 1 to every 9 cases in 1879.

Sickness and deaths in industrial schools. 448. The cases of sickness treated in the Industrial and Reformatory Schools numbered 981 in 1878, and 12 deaths occurred. In 1879, 974 cases were treated, and 7 deaths took place. The deaths were, therefore, to the cases of disease in the proportion of 1 to every 82 in the former, and of 1 to every 139 in the latter year.

* Besides these deaths, which are of women only, 33 infants died in the institution in 1878, and 47 in 1879.

449. In gaols and penal establishments 5,270 cases of sickness occurred in 1878, and 5,473 in 1879. The deaths in these two years respectively were 29 and 38. Thus, 1 death occurred to every 182 cases in 1878, and 1 death to every 144 cases in 1879. The proportions of deaths to cases of sickness are smaller in these than in any other public institutions; but it is also probable that the cases of sickness dealt with are, on the average, of a lighter character than those treated in the other institutions. Sickness and deaths in gaols.

450. Altogether the number of deaths in penal or charitable institutions in 1879 was 2,084, or 1 to every 6 deaths which took place in Victoria during the year. The deaths in such institutions were in 1878 and in 1877 in the same proportion as in 1879, 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 1879:— Deaths in public institutions.

DEATHS IN PUBLIC INSTITUTIONS, 1879.

| Number of Deaths. | | Number of Deaths. | |
|-------------------------------------------------|-------|----------------------------------------|-------|
| General hospitals ... | 1,452 | Hospitals for the insane ... | 225 |
| Hospital for Diseases of Women and Children ... | 13 | Female refuges ... | 11† |
| Lying-in Hospital ... | 56* | Industrial and reformatory schools ... | 7 |
| Hospital for Sick Children ... | 25 | Gaols ... | 33 |
| Benevolent asylums ... | 176 | Penal establishments ... | 5 |
| Melbourne Immigrants' Home | 76 | | — |
| Orphan asylums ... | 3 | Total ... | 2,084 |
| Blind asylum ... | 2 | | — |

NOTE.—In 1879 no death occurred in the Deaf and Dumb Asylum or the Eye and Ear Hospital.

451. The number of cases of successful vaccination in 1879 was 22,100; and, as the number of births was 26,839, it appears that 82 per cent. of the children born were vaccinated. Part of the remainder are accounted for by death—1,669, or 6 per cent. of those born, having died before they were 3 months old, and 2,305, or $8\frac{1}{2}$ per cent., before they were 6 months old. The vaccinations amounted in 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.

452. The following are the results of meteorological observations taken at different stations throughout the colony during 1879. 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, 1879.

* This includes the deaths of 47 children born in the institution.

† This includes the deaths of 8 children of inmates of the Female Refuge, Madeline street.

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, 1879.

| Stations. | Height above Sea-level. | Temperature in the Shade. | | |
|---------------------|-------------------------|---------------------------|------|-------|
| | | Max. | Min. | Mean. |
| | feet. | ° | ° | ° |
| Portland | 37·0 | 103·0 | 31·0 | 56·8 |
| Melbourne | 91·3 | 106·0 | 30·5 | 56·8 |
| Cape Otway | 270·0 | 105·0 | 37·0 | 54·7 |
| Wilson's Promontory | 300·0 | 100·0 | 40·0 | 56·0 |
| Sandhurst | 758·0 | 112·5 | 30·0 | 57·7 |
| Ballarat | 1,438·0 | 108·8 | 28·5 | 55·6 |

| Stations. | Mean Atmospheric Pressure. | Days on which Rain fell. | Amount of Rainfall. | Mean Relative Humidity. | Amount of Cloud. |
|---------------------|----------------------------|--------------------------|---------------------|-------------------------|------------------|
| | inches. | No. | inches. | 0-1. | 0-10. |
| Portland | 29·969 | 177 | 32·13 | ·73 | 3·9 |
| Melbourne | 29·919 | 127 | 19·28 | ·71 | 5·8 |
| Cape Otway | 29·745 | 148 | 31·02 | ·87 | 7·8 |
| Wilson's Promontory | 29·569 | 169 | 39·57 | ·74 | 6·1 |
| Sandhurst | 29·191 | 108 | 16·37 | ·73 | 4·5 |
| Ballarat | 28·500 | 129 | 22·61 | ·64 | 6·1 |

Meteorology in Melbourne, 1864 to 1879.

453. The following are the results for Melbourne in each of the sixteen years ended with 1879:—

METEOROLOGICAL OBSERVATIONS AT MELBOURNE.—RETURN FOR SIXTEEN 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. | 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 |

Temperature and rainfall.

454. It will be observed that the mean temperature in Melbourne is remarkably even from year to year. The rainfall in 1879 was 6 inches

less than in 1878, and was also less than in any year since 1868; that in 1865 was, however, less than it by over 3 inches. During the last four years named in the table the rainfall was remarkably low.

455. 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.

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

457. The returns of imports and exports during 1879, 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 character should be kept together. The present is the fifth 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, 1879.

458. The rate of import duty chargeable according to the tariff in force in 1879 is placed against each dutiable article named in the table of imports and exports. The tariffs of all the Australasian colonies are given in Appendix B, and the tariff of the United Kingdom in Appendix C, *post*. Import duties.

459. This table is preceded by an alphabetical index, by the assistance of which the position of any article may be readily found. Index of imports and exports.

INDEX OF ARTICLES IMPORTED AND EXPORTED.

* ** This Index refers to the tables of imports and exports which immediately follow it.

| Entries. | Order. | Entries. | Order. | Entries. | Order. |
|------------------------|--------|------------------------|--------|-----------------|--------|
| Acid—acetic, other ... | 14 | Apparel ... | 19 | Bath bricks... | 29 |
| Aerated waters ... | 23 | Arms and ammunition | 8 | Beans ... | 22 |
| Agricultural — imple- | | Arrowroot ... | 22 | Bêche de mer | 21 |
| ments, machinery ... | 9 | Arsenic ... | 14 | Beef—salted | 21 |
| Air-bricks ... | 12 | Artificial flowers | 19 | Beer ... | 23 |
| Ale and porter ... | 23 | Asphalte ... | 14 | Beeswax ... | 24 |
| Alkali ... | 14 | Axle—arms, boxes | 10 | Benzine ... | 26 |
| Almond oil ... | 26 | Axles ... | 10 | Birds ... | 33 |
| Almonds ... | 22 | Bacon ... | 21 | Biscuits ... | 22 |
| Alum ... | 14 | Bagging ... | 20 | Bitters ... | 23 |
| Anchors ... | 11 | Bags, sacks... | 20 | Black oil ... | 26 |
| Animal food ... | 21 | „ paper ... | 25 | „ sand ... | 32 |
| „ substances ... | 24 | Bark ... | 25 | Blankets ... | 15 |
| Animals and birds ... | 33 | Barley ... | 22 | Blasting powder | 8 |
| Antimony—crude, ore, | | Basket and wicker ware | 25 | Blue ... | 25 |
| regulus ... | 32 | Bass ... | 25 | Boats ... | 11 |

* 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.