

PENSIONS, RETIRING ALLOWANCES, COMPENSATIONS, AND GRATUITIES PAYABLE, 1884-5—continued.

Pensions, Compensations, &c.	Annual Allowances.	Compensations and Gratuities.	Total.
<i>Under Annual Votes—</i>	£	£	£
Railway Department	1,993	7,840	9,833
Public Service	14,265	17,259	31,524
Others	338	...	338
Total	16,596	25,099	41,695
<i>To the Police—</i>			
Endowment and amount voted £12,000* } From Police Superannuation Fund 11,571 }	16,128	7,443	23,571
Grand total	74,410	55,215	129,625
Less amount derived from Police Superannuation Fund	...	...	11,571
Amount payable by State ... ..	...	...	£118,054

394. It should be mentioned that, owing to the deaths of recipients, the amounts paid were, in some instances less, and, owing to the payment of arrears, in some instances more, than those stated. The amount actually paid during the year 1884-5 was £117,959†, or £95 less than that shown in the table.

Amount actually paid for pensions, gratuities, &c.

PART III.—VITAL STATISTICS.

395. In pursuance of the provisions of Act 28 Vict. No. 246, records are kept of all marriages, births, and deaths which are known to occur in Victoria. The marriages are recorded by registrars of marriages or by clergymen throughout the colony, and the births and deaths by deputy registrars. The marriage registrations are made in triplicate, one copy being forwarded to the Registrar-General, one retained by the lay registrar or officiating clergyman, as the case may be, and the third given to the parties married. The birth and death registrations are made in duplicate, one copy being forwarded to the Registrar-General and the other retained by the deputy registrar.

Registration system for marriages, births, and deaths.

396. It is found convenient to deal with the records according to the periods in which the marriages, births, and deaths are registered, rather than those in which they occur. And—since the registration

Time of registration dealt with in compiling statistics.

* These figures represent the amount payable from the general revenue, which consist of the usual endowment of £2,000, and an additional grant of £10,000 voted by Parliament.

† See table following paragraph 223 ante.

of a death should in all cases precede burial, and the registration of a marriage is simultaneous with the marriage itself—the registrations in the former case closely, and in the latter case entirely, agree with the actual occurrences during any period. In the case of births, however, there is a wider margin, since the legal limit of registration extends to two months, and may in special cases extend to twelve months, after the date of birth; the effect of which is, not that the numbers in one period differ much from those in another not distant period of similar duration, but that, in view of the length of time over which the non-registration of a birth is permitted to extend, and the natural tendency of some persons to postpone whatever is not absolutely necessary to be done on a particular day, a certain number of births escape registration altogether.

Marriages,
1885.

397. The marriages returned to the Registrar-General for 1885 numbered 7,395, as against 7,218 for the previous year. The excess in favour of 1885 was thus 177.

Marriages,
1885 and
former
years.

398. More marriages were returned for 1885 than for any previous year. The number returned annually had been almost stationary during the seven years prior to 1880, but in that year an advance was made which has been more than sustained since. In 1882, for the first time, the marriages returned exceeded 6,000; and in 1884, for the first time, they exceeded 7,000.*

Delay in
sending in
marriage
returns.

399. It should be pointed out that although the marriages are of necessity registered as soon as they are performed, and although, under the Act already referred to, the clergyman or other person celebrating a marriage is bound, under a penalty ranging from ten to fifty pounds, to forward a copy of the register to the Registrar-General in the first month of the quarter succeeding that in which the marriage takes place, as a matter of fact there is a considerable want of regularity on the part of some of the clergy in sending in their registers, and, in consequence, each year some marriages appear in the returns which were solemnized in previous years. In the registers sent in during 1885 it is found that 153 marriages, or over 2 per cent. of the whole, were in this category. Of these 1 was solemnized as far back as 1873, and 3 in 1874; 15 were solemnized in 1881, 29 in 1882, 43 in 1883, and 62 in 1884. The following denominations were responsible for the delay in regard to the numbers placed against their respective names:—Roman Catholic, 112; Church of England, 22; Bible Christian, 12; Baptist, 7. The custom is to include all marriages in the returns of the year in which the registers relating to them reach the Registrar-General,

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

without reference to when they were solemnized, and as the arrears made good during one year generally about balance those belonging to the same year, the totals are not materially affected thereby.

400. But in 1885, returns of 132 marriages were received to which it would obviously be unfair to apply this custom, as they took place as long ago as 1853, and some even previously, the body according to the rites of which they were solemnized being the Church of England. At the time, no Act for the registration of marriages was in force, and such documents as existed in proof of the marriage having taken place were kept at the church or by the clergyman. These documents should have been sent to the Registrar-General when the first Registration Act came into operation in 1854, but it seems, in the present instance, this was not done. These marriages, as a matter of course, have not been included in the returns for 1885.

Marriages dating from and before 1853.

401. The proportion which the number of marriages bear to the total population is generally called the marriage rate. This for many years had been declining in Victoria, for, whilst in the three years prior to 1863 it was above 8 per 1,000 of both sexes and all ages, from 1863 to 1865 it was between 7 and 8, and between 1868 and 1878 it was between 6 and 7, per 1,000. It reached its lowest point, 5.98 per 1,000, in 1879; and then gradually revived. In 1885 the rate was slightly lower than in the previous year, but with this exception was the highest during the last twenty years. The following table gives the number of marriages and number of persons married per 1,000 of the population during each of the twenty-six years ended with 1885:—

Marriage rate.

ANNUAL MARRIAGE RATE, 1860 TO 1885.

Year.	Per 1,000 of the Mean Population.		Year.	Per 1,000 of the Mean Population.	
	Number of Marriages.	Number of Persons Married.		Number of Marriages.	Number of Persons Married.
1860	8.15	16.30	1874	6.33	12.66
1861	8.21	16.42	1875	6.33	12.66
1862	8.26	16.52	1876	6.21	12.42
1863	7.51	15.02	1877	6.31	12.62
1864	7.77	15.54	1878	6.20	12.40
1865	7.36	14.72	1879	5.98	11.96
1866	6.76	13.52	1880	6.22	12.44
1867	6.97	13.94	1881	6.79	13.58
1868	7.08	14.16	1882	7.08	14.17
1869	6.89	13.78	1883	7.38	14.76
1870	6.63	13.26	1884	7.63	15.25
1871	6.37	12.74	1885	7.58	15.16
1872	6.36	12.72			
1873	6.50	13.00			
			Mean of 26 years	6.95	13.90

Marriage
rate at
various
periods.

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

PROPORTION OF MARRIAGES TO POPULATION† AND TO SINGLE MEN AND WOMEN, 1854 TO 1881.

Year of Census.	Exclusive of Chinese and Aborigines.					
	Population.	Number of Marriages.	Proportion of Marriages per 1,000 of the—			
			Population.	Marriageable Men.‡	Marriageable Women.§	
1854	234,361	3,696	15·77	52·16	245·04	
1857	383,668	4,465	11·64	46·79	169·66	
1861	513,896	4,528	8·81	42·34	122·36	
1871	712,263	4,715	6·62	52·43	72·11	
1881	849,438	5,732	6·75	57·40	48·02	

Reasons for
fluctuations
in marriage
rate.

403. The numbers in the last column but two, and those in the last column, show such a falling-off that, if the proportion that marriages bear to the total population or to the number of single females were to be accepted as an index of the prosperity of the community, an alarming amount of depression would be indicated. The figures in the last column but one, however, tell a very different tale, and exhibit just such fluctuations as might have been expected from the changes which took place in the circumstances of the population between the different periods. Thus, in 1854, there was a very large influx to the colony of single adult males, some of whom brought capital with them, which

* See *Victorian Year-Book*, 1879-80, pages 103 and 104; same work, 1880-81, pages 199 and 200; and same work, 1881-2, pages 165 and 166.

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

‡ Comprising bachelors of 20 and upwards, and widowers at all ages.

§ Comprising spinsters of 15 and upwards, and widows at all ages.

they saw, or thought they saw, every prospect of speedily increasing, whilst others actually did make money very quickly, and, consequently, the proportion who married was high, but, doubtless, not so high as it would have been had it not been for the discomfort of living in tents and other privations incident to a life on the early gold-fields, to which a large portion of the community was then subjected. By 1857 immigration had for the time been overdone, the result being that the gold obtained was very much less in proportion to the number of miners at work than it had been, whilst the discomforts of a gold-fields life were as great as ever, and so the rate naturally declined. By 1861 the yield of gold had seriously diminished, and as persons had not yet turned, to any great extent, to other pursuits, much distress was experienced, and the rate fell to a minimum. By 1871, and in a greater degree by 1881, a large proportion of the population had settled on farms, whilst some, unable to obtain congenial occupation, had left the colony; tents had almost disappeared from the gold-fields; the miners were, for the most part, working for wages, and did not, as formerly, rush about from place to place; manufactures had been started, and had made considerable progress, and, accordingly, the rate improved. In 1871 the marriage rate was higher than at any previous period of the colony's history, and in 1881 it was still higher than in 1871.

404. The decline in the female marriage rate shown in the last column of the table will be better realized when it is considered that in 1854 about 1 in 4 of all the spinsters and widows in the colony married in the year—which proportion, three years after, had fallen to 1 in 6; four years later it had fallen to 1 in 8; ten years still later it had fallen to 1 in 14; and ten years later, viz., in 1881, it had reached the exceedingly low point of 1 in 21. The tide had probably then turned, and the youthful native-born male population growing up to manhood had commenced to fill the gap in early adult life caused by the passing on to later periods of the immigrants who, at the time of the discovery of the first gold-fields, came to Victoria unaccompanied by persons at younger ages who should supply their places as they passed onward or disappeared altogether from the scene. It may, therefore, be expected that, if the colony continues to enjoy a fair amount of prosperity, the next census will show that the marriages have increased in proportion to the available females, as the last enumeration showed they had done in proportion to the available males.

Probability
of female
marriage
rate reviv-
ing.

405. M. Toussaint Loua, Chief of the General Bureau of Statistics of France, in a paper read before the Statistical Society of Paris on the 17th December, 1884, pointed out the desirability of ascertaining the

French mar-
riage rate.

marriage rate by comparing the marriages with the number of marriageable persons instead of with the total population,* and states that in France marriageable males marry at the annual rate of 57 per 1,000, and marriageable females at that of 46 per 1,000. In a former paper (September, 1884,) the same writer had stated the proportions in Switzerland were respectively 49 and 38. The proportions in Victoria, according to the lowest line of the last table were 57 and 48. M. Loua does not say what ages he considers marriageable, and perhaps they may not be identical with those so considered by the Government Statist of Victoria—viz., 20 and upwards for males, and 15 and upwards for females.

Marriage rates in Australasian colonies.

406. The following table gives a statement of the number of marriages to every 1,000 of the population of the various Australasian colonies for each year from 1865 to 1884, except Western Australia, for which colony it is given for the last thirteen of those years:—

MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1865 TO 1884.†

Year.	Number of Marriages ‡ per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	7·36	8·90	13·27	9·45	...	6·27	10·47
1866 ...	6·76	8·22	11·61	8·12	...	5·93	10·32
1867 ...	6·97	7·79	9·54	8·20	...	6·10	9·69
1868 ...	7·08	8·17	8·33	7·37	...	6·57	9·35
1869 ...	6·89	7·98	8·31	6·78	...	6·44	8·32
1870 ...	6·63	7·79	7·80	6·90	...	6·62	7·62
1871 ...	6·37	7·73	8·06	6·77	...	5·90	7·15
1872 ...	6·36	7·42	8·70	7·20	5·56	6·17	6·85
1873 ...	6·50	7·97	9·66	8·00	6·25	6·36	7·91
1874 ...	6·33	7·59	8·62	8·00	6·96	6·83	8·87
1875 ...	6·33	7·73	8·63	8·01	7·26	6·63	8·94
1876 ...	6·21	7·49	7·57	8·49	7·07	7·13	8·25
1877 ...	6·31	7·73	7·57	8·66	6·38	7·79	7·63
1878 ...	6·20	7·84	6·98	9·47	6·50	7·96	8·03
1879 ...	5·98	7·55	7·49	8·81	7·57	7·23	7·60
1880 ...	6·22	7·72	6·97	8·69	7·42	7·38	6·71
1881 ...	6·79	8·24	7·71	8·33	6·60	7·30	6·65
1882 ...	7·08	8·69	8·56	8·73	7·07	8·03	7·07
1883 ...	7·38	8·78	8·93	8·49	6·95	9·01	6·82
1884 ...	7·63	8·36	8·91	8·28	7·11	7·81	6·88
Means ...	6·67	7·98	8·66	8·14	6·82	6·91	8·06

* The following are M. Loua's words:—"Si l'on veut rendre compte de la fréquence réelle des mariages, le rapport à la population ne suffit pas; il vaut mieux mettre les mariages en parallèle avec la population *mariable*, c'est à dire avec le nombre des individus célibataires ou veufs) ayant atteint ou dépassé l'âge requis pour leur mariage."—*Journal de la Société de la Statistique de Paris*, vingt-sixième année, p. 13, Berger Levrault, 5 Rue des Beaux Arts, Paris.

† For the number of marriages in the various colonies during the thirteen years ended with 1885, see General Summary of Australasian Statistics (third folding sheet) *ante*.

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

407. It will be observed that the mean marriage rate is lower in Victoria than in any one of the neighbouring colonies, and as, during the whole period over which the calculations extend, Victoria has certainly been second to none of the other colonies in point of wealth and prosperity, this may create surprise in the minds of those who fail to realize the fact that marriage rates, calculated upon the total population, do not afford an indication of the amount of prosperity in a community so much as of the proportion which single men at marriageable ages bear to the population as a whole. In civilized countries, the age at which four-fifths of the males who marry enter the marriage state is between 20 and 35 years. It naturally follows, therefore, that on the number of males at such ages the number of marriages mainly depends. Prior to the taking of the last census it was mentioned as probable that there had been a falling-off in the male population of Victoria at those ages; and, as was anticipated, the census disclosed the fact that Victoria had, in proportion to the total population, a smaller number of males between 20 and 40 than any of the other colonies.* The explanation of the higher proportion in the other colonies of males at the period named is to be found mainly in the fact that they—especially New South Wales, Queensland, South Australia, and New Zealand—have, for years past, introduced large numbers of adults at the cost of the State, and, as is nearly always the case when immigration is subsidized, these have been accompanied or followed by a steady stream of unassisted immigrants. Besides, not one of the neighbouring colonies has been subjected, in the early years of its history, to so large an influx of adult male immigrants unaccompanied by persons at younger ages, followed by a cessation of immigration, as has taken place in Victoria at and since the time of the early gold discoveries. As the young population is growing to a marriageable age, however, this colony is rapidly assuming a normal condition; and this circumstance is already bringing about an improvement in the marriage rate, which, with perhaps occasional brief interruptions, will assuredly continue until marriages bear as high a proportion to the total population as they do in any of the neighbouring colonies.

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

408. In 1884 the marriage rate of each colony, except New Zealand, was above the mean of the whole period, as shown in the last line of the table. During recent years the rate has generally been increasing in Victoria, Queensland, New South Wales, and Tasmania, but declining in South Australia and New Zealand. The rate has steadily increased in Victoria since 1879 and in Queensland since 1880; moreover, in

Comparison of marriage rates of colonies in 1884 and former years.

* See figures following paragraph 87 *ante*.

Victoria it was higher in 1884 than in any previous year named in the table ; but in New South Wales, and especially in Tasmania, there was in 1884 a fall in the rate as compared with the two previous years. In South Australia the decline has been pretty gradual since 1878 when the maximum rate was attained ; since then the lowest points reached were in 1881 and 1884. In New Zealand, during the last five years, the marriage rate has been low, but the figures for the last three years show some indication of improvement. Ten years ago the marriage rate in New Zealand was as high as 9 per 1,000, and was higher than in any of the other colonies ; but in the last five years it has averaged less than 7 per 1,000, and was lower than in any other colony. This is a remarkable instance of a high marriage rate coincident with an influx of adult immigrants, and a low one consequent upon such influx being stopped. *

Order of colonies in respect to marriage rates.

409. 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 twenty years :—

ORDER OF COLONIES IN REFERENCE TO MARRIAGE RATES.

Order in 1884.	Order in a Series of Years.
1. Queensland.	1. Queensland.
2. New South Wales.	2. South Australia.
3. South Australia.	3. New Zealand.
4. Tasmania.	4. New South Wales.
5. Victoria.	5. Tasmania.
6. Western Australia.	6. Western Australia.
7. New Zealand.	7. Victoria.

Positions of colonies as regards marriage rates.

410. It will be noticed that Victoria, which for several years had been at the bottom, stood in 1884 above Western Australia and New Zealand ; that Tasmania, which in 1883 was at the head of the list, in 1884 occupied only the fourth place.

Marriage rates in Australia and Australasia.

411. In 1884 the marriage rate of the colonies situated upon the Australian continent was higher than in any of the other years named in the following table, except 1883 ; and, notwithstanding the decline in the marriage rate experienced in New Zealand, which has been already referred to, † this was also the case as regards the Continental colonies with the addition of that colony and Tasmania :—

* Such an event was foreshadowed by the present writer in a paper read by him before the Melbourne Social Science Congress on the 25th April, 1880, in the following words :—“ A depression in the marriage rate, it may be anticipated, will before long overtake several of the neighbouring colonies wherein marriages now bear a high proportion to the population, but which proportion must inevitably decline upon the cessation of the stream of adult immigrants which now flows towards their shores.”

† See paragraph 408 *ante*.

MARRIAGE RATES IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1884.

Year.	Number of Marriages * per 1,000 of Mean Population.	
	Continent of Australia.	Australia with Tasmania and New Zealand.
1873	7.35	7.38
1874	7.07	7.32
1875	7.12	7.38
1876	6.93	7.15
1877	7.05	7.18
1878	7.08	7.27
1879	6.88	7.01
1880	7.15	7.08
1881	7.62	7.41
1882	8.02	7.86
1883	8.19	7.99
1884	8.12	7.89
Means	7.39	7.40

412. Returns of marriages, births, and deaths are obtainable for few British colonies outside of Australasia. The following are the marriage rates in those colonies—which, it is to be regretted, are, for the most part, of only minor importance—for which such particulars have come to hand, or can be gathered from their official reports. The low rate in 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, to a certain extent, be accounted for by the fact that the large imported Cooly population is for the most part comprised of males, the females introduced being extremely few:—

Marriage rates in certain British possessions.

MARRIAGE RATES IN CERTAIN BRITISH POSSESSIONS.

Years.	Annual Rate per 1,000 of the Population.*	Years.	Annual Rate per 1,000 of the Population.*
Ceylon ... 1867-76 ...	7.3	West Indies—	
Mauritius ... 1871-75 ...	2.5	St. Vincent 1872-76 ...	6.3
Seychelles ... 1875-77 ...	8.7	Barbadoes ... 1872-77 ...	3.7
Nova Scotia ... 1871-75 ...	7.7	Grenada ... 1871-75 ...	5.6
Bermudas ... 1871-75 ...	8.3	Dominica ... 1871-75 ...	6.9
West Indies—		Trinidad ... 1871-75 ...	3.8
St. Lucia ... 1878-79 ...	5.2		

413. The following table gives for each of the five years ended with 1883 a statement of the marriage rates in British and such Foreign countries as the information is available for. The figures have been taken from the reports of the Registrar-General of England:—

Marriage rates in European countries.

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

MARRIAGE RATES IN EUROPEAN COUNTRIES, 1879 to 1883.

Countries.	Number of Marriages* per 1,000 of Mean Populations.					Mean of Five Years.
	1879.	1880.	1881.	1882.	1883.	
Hungary	10·2	9·1	9·9	10·2	10·2	9·9
Austria	7·6	7·5	8·0	8·2	7·8	7·8
Prussia	7·7	7·6	7·7	7·8	7·8	7·7
Italy †	7·5	6·9	8·1	7·9	8·0	7·7
Denmark	7·3	7·6	7·8	7·7	7·7	7·6
German Empire	7·5	7·5	7·5	7·7	7·7	7·6
England and Wales	7·2	7·4	7·6	7·7	7·7	7·5
France	7·6	7·5	7·5	7·4	7·5	7·5
Holland	7·6	7·5	7·3	7·2	7·1	7·3
Belgium	6·7	7·1	7·2	7·0	6·7	6·9
Scotland	6·4	6·6	6·9	7·0	7·0	6·8
Switzerland	6·9	6·8	6·8	6·8	6·8	6·8
Spain ... ..	...	...	...	...	...	6·8 ‡
Norway	6·8	6·7	6·4	6·7	6·6	6·6
Sweden	6·3	6·3	6·2	6·4	6·4	6·3
Ireland §	4·3	3·8	4·2	4·3	4·3	4·2

European marriage rates in 1883 and former years.

414. It will be observed that in seven of the countries during 1879, and in eight during 1880, the marriage rates were below the average; but in most of these there was afterwards a reaction, and in 1883 the rate was well up to the five years' mean in most of the countries, the only ones in which it was below it being Holland and Belgium.

Australasian and European marriage rates compared.

415. In the same five years the mean marriage rates in South Australia, New South Wales, and Queensland were above those in any of the countries named, except Hungary, and the mean rate in Tasmania was above that in any, except that country and Austria; the mean rates in Western Australia and New Zealand were between those prevailing in The Netherlands and Scotland, but the mean rate in Victoria was below that in all the countries, except Norway, Sweden, and Ireland. The following are the rates referred to:—

MEAN MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1879 TO 1883.

	Number of Marriages per 1,000 of Mean Population.				
South Australia	8·61
New South Wales...	8·20
Queensland	7·93
Tasmania	7·79
Western Australia	7·12
New Zealand	6·97
Victoria	6·69

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

† In Italy, the civil became the only legal form of marriage in 1866, and a low rate was recorded in that and subsequent years in consequence of the non-registration of marriages solemnized only in churches. The number of such marriages, however, afterwards decreased, and of late years the registration of marriages has been less imperfect.

‡ Mean of 1876 and 1878

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

416. The following, according to the reports of the Registrar-General of England, is the marriage rate of the United Kingdom during the thirteen years ended with 1883. 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 in 1883, although not quite so high as in 1882 was above that in the four previous years :—

Marriage rate in United Kingdom.

MARRIAGE RATE IN THE UNITED KINGDOM, 1871 TO 1883.

Marriages per 1,000 of the Population.			Marriages per 1,000 of the Population.		
1871	...	8.21	1879	...	6.69
1872	...	7.98	1880	...	6.83
1873	...	8.03	1881	...	7.01
1874	...	7.79	1882	...	7.17
1875	...	7.67	1883	..	7.15
1876	...	7.70			—
1877	...	7.32	Mean	...	7.43
1878	...	7.09			—

417. Although rural rather than urban life tends to the promotion of marriage, it happens that, since the marriage ceremony is generally performed in towns, whatever may be the ordinary residence of the persons marrying, the marriage rate recorded there is much higher than that in the country. In 1885 it was in town districts three times as high as in rural districts, as will be seen by the following table, which contains a statement of the marriages celebrated in that year in the three classes of districts, together with the estimated mean populations of such divisions :—

Marriage rates in town and country.

MARRIAGES IN URBAN AND COUNTRY DISTRICTS, 1885.

Districts.	Estimated Mean Population.	Marriages, 1885.	
		Total Number.	Number per 1,000 of the Population.
Melbourne & suburbs (Greater Melbourne)	345,380	3,921	11.35
Extra-Metropolitan towns	191,020	1,932	10.11
Country districts	438,640	1,542	3.52
Total	975,040	7,395	7.58

418. Marriages in Victoria are generally most numerous in the autumn quarter, next in the spring quarter, next in the summer quarter, and least numerous in the winter quarter. In 1885, however,

Marriages in each quarter.

See footnote (§) on previous page.

the number in the winter was greater than in the summer 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 a previous decade:—

MARRIAGES IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1885.		Percentage in Ten Years: 1871 to 1880.
		Number of Marriages.	Percentage.	
Summer ...	March ...	1,599	21·62	24·43
Autumn ...	June ...	2,067	27·95	26·19
Winter ...	September ...	1,785	24·14	23·81
Spring ...	December ...	1,944	26·29	25·57
	Year ...	7,395	100·00	100·00

Former condition of those marrying.

419. 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. In 1885 the proportion of marriages between bachelors and spinsters was much above the average, and a corresponding decrease occurred amongst the other classes, chiefly in the marriages of bachelors and widows. The following are the number and percentage in each of these groups during 1885 and the percentage during a previous decennial period:—

FORMER CONDITION OF PERSONS MARRIED.

Previous Condition.	Year 1885.		Percentage in Ten Years: 1871 to 1880.
	Number of Marriages.	Percentage.	
Bachelors and spinsters ...	6,290	85·06	80·59
Bachelors and widows ...	370	5·00	7·10
Widowers and spinsters ...	459	6·21	7·75
Widowers and widows ...	276	3·73	4·56
Total ...	7,395	100·00	100·00

Former condition of those marrying in various countries.

420. The following is a statement of the proportions of marriages of persons of different conjugal conditions in various countries, the figures, except those in the first line, being taken from *Mulhall's Dictionary of Statistics**:—

* Page 304. London: Routledge and Sons, 1884.

FORMER CONDITION OF PERSONS MARRYING IN DIFFERENT COUNTRIES.

Countries.	Per 1,000 Marriages Celebrated, Number between—			
	Bachelors and Spinsters.	Bachelors and Widows.	Widowers and Spinsters.	Widowers and Widows.
Victoria	806	71	77	46
England	816	45	86	53
France	840	41	82	37
Prussia	794	53	108	45
Russia	762	46	102	90
Austria	755	64	131	50
Italy	825	38	99	38
Spain	811	40	101	48
Belgium	827	51	86	36
Holland... ..	794	54	104	48
Denmark	813	52	101	34
Sweden	847	36	93	24
Norway... ..	845	38	96	21
Greece	858	41	68	33
Roumania	850	30	62	58

421. The figures in this table appear to show that widows have a better chance of remarrying in Victoria than in most of the countries named, as the proportion of such remarriages (117 per 1,000) is higher than in any of those countries, except Russia (136 per 1,000). Next to these countries in this respect is Austria with 114, then Holland with 102, and then England and Prussia each with 98 remarriages of widows to every 1,000 marriages celebrated.

High proportion of widows remarrying.

422. 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. Two divorced men and six divorced women were married in 1885; the former married spinsters, and five of the latter married bachelors, and one a widower. There was also a marriage by registrar of a man and woman who had been previously married to one another; but no statement was made as to whether they had been divorced or what was the reason of their remarriage.

Divorced persons, 1885.

423. The persons returned at the census of 1881 as living in a state of divorce numbered 19, viz., 9 males and 10 females. Of the former,

Divorced persons, 1881.

4 were farmers or gardeners, 1 was a merchant, 1 a shopkeeper, 1 a cabinetmaker, 1 a bootmaker, and 1 a maltster. Of the females, 1 was an innkeeper, 1 a farmer, 1 a tailoress, 1 a needlewoman, 1 of independent means, 2 were washerwomen, and 3 were merely performing domestic duties.*

Deserted
husbands
and wives.

424. Persons whose wives or husbands have not been heard of for a period of seven years may marry again without rendering themselves liable to be prosecuted for bigamy; but such unions are subject to the serious disadvantage that the issue by the second marriage would be illegitimate, and the marriage itself void, if it should turn out that the first husband or wife was alive at the time thereof. Thirteen deserted wives but only two deserted husbands availed themselves of this provision in 1885. Nine of the former married bachelors, and four widowers; five had not heard of their former husbands for 7 years, two for 8, two for 9, two for 10, and the two others for 11 and 25 years respectively. Of the two deserted husbands, one married a widow, and the other a spinster; one had not heard of his former wife for 10 years, and the other for 30 years. In the previous year thirteen deserted wives remarried, but no instance of the remarriage of a deserted husband appeared in the registers.

Remarriages.

425. In 1885, 735 widowers and 646 widows re-entered the marriage state. During the last twelve years more widowers have remarried than widows. Formerly it was different. In the eight years ended with 1873 the widowers re-entering the marriage state numbered 4,344, and the widows 4,618, 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 preponderance would be likely to happen only in a country in which females are much less numerous than males; and the fact of the reverse having been the case of late years would afford indirect proof, if such were needed, that the proportion of marriageable females to marriageable males in the population has increased, a circumstance which was made evident by the results of the last census.† In England and Wales, during the twenty years ended with 1874, 48 per cent. more widowers remarried than widows, the number of the former being 490,912, that of the latter 332,428. The following is a statement of the number of widowers and widows who remarried in Victoria during each of the twenty years ended with 1885:—

* For further particulars respecting these divorced persons, see General Report, by the Government Statist, on the Census of Victoria, 1881, paragraph 314.

† According to the census returns, there were in Victoria, in 1881, nearly 120 marriageable females to every 100 marriageable males.—See table following paragraph 402, also figures following paragraph 404, ante.

REMARRIAGES, 1866 TO 1885.

Year.	Number of Remarriages of—		Year.	Number of Remarriages of—	
	Widowers.	Widows.		Widowers.	Widows.
1866 ...	487	498	1877 ...	666	600
1867 ...	504	591	1878 ...	634	585
1868 ...	558	623	1879 ...	637	553
1869 ...	553	563	1880 ...	603	520
1870 ...	547	595	1881 ...	679	551
1871 ...	587	605	1882 ...	628	547
1872 ...	522	552	1883 ...	699	562
1873 ...	586	591	1884 ...	725	615
1874 ...	602	593	1885 ...	735	646
1875 ...	614	583			
1876 ...	678	623	Total ...	12,244	11,596

426. The marriages of 4 Aboriginal males with Aboriginal females are included in the returns of 1885. In the previous year 9 such marriages took place. Marriages of Aborigines.

427. Twenty-nine full and 2 half-bred Chinese males were married in Victoria in the year 1885, as against 19 Chinese in 1884, and 8 in 1883. Of the Victorian-born women who married Chinese in the year under review, 1 was a full-bred Chinese, and 4 were half-castes of the same race. During the nineteen years prior to 1885, 295 Chinamen were married in Victoria, or an average of about 15 per annum. The following table shows the nationalities of the women who formed matrimonial unions with Chinese during that period, also during the year under review :— Marriages of Chinese.

NATIONALITY OF WOMEN MARRYING CHINESE, 1866 TO 1885.

Birthplace of Wives.	Number of Marriages of Chinese Males.		
	Eighteen Years: 1866 to 1884.	Year 1885.	Total: 1866 to 1885.
Victoria ...	138	22*	160
Other Australian colonies ...	49	4	53
England and Wales ...	53	3	56
Scotland ...	15	...	15
Ireland ...	24	1	25
Other British possessions ...	1	...	1
France ...	1	...	1
Germany ...	2	...	2
Spain ...	1	...	1
The United States ...	2	...	2
China ...	4	...	4
At sea ...	5	1	6
Total ...	295	31	326

* Including the marriages of 1 full and 4 half caste Chinese females; also those of 2 half-caste Chinese males.

Marriage of
an English-
man and a
Chinese.

428. As a set-off to the number of Chinamen marrying women of European extraction as stated in the table, it may be mentioned that in 1885 an instance occurred of the marriage of an Englishman with a Chinese half-caste female.

Marriages
by different
sects.

429. The marriage ceremony in Victoria may be performed either by the registered clergy of any religious sect or by lay registrars. In 1885, 94 per cent. of the marriages were celebrated according to the former, and 6 per cent. according to the latter, system. Lay marriages, in 1885 numbered 426, and were fewer than in any previous year since 1878. In 1884 they numbered 645; in 1883, 565; in 1882, 588. The following table gives a statement of the number and percentage of marriages celebrated by each religious sect and by lay registrars during 1885, also the percentage in the preceding year and in the ten years ended with 1880:—

MARRIAGES BY DIFFERENT DENOMINATIONS.

Marriages performed according to the usages of the—	Marriages in 1885.		Percentage of Marriages in—	
	Number.	Percentage.	1884.	Ten Years: 1871-80.
Church of England	2,171	29·36	29·54	24·63
Presbyterians	1,188	16·07	17·20	20·46
Wesleyans	1,192	16·12	15·77	16·38
Bible Christians	182	2·46	1·95	1·69
Independents	389	5·26	4·90	5·42
Baptists	513	6·94	4·34	3·70
Lutherans	85	1·15	1·01	1·02
Unitarians	4	·05	·01	·02
Society of Friends ... ..	...	...	...	·01
Calvinistic Methodists	6	·08	·03	·16
Roman Catholics	1,112	15·04	14·70	17·21
Jews	38	·51	·50	·42
Other sects	89	1·20	1·11	1·06
Lay registrars	426	5·76	8·94	7·82
Total	7,395	100·00	100·00	100·00

Duplicate
marriages.

430. 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. In 1885, two such cases were noticed, viz., one of a marriage according to the usages of the United Methodist Free Church of a couple who had previously been united by a lay registrar, and the other a marriage, according to Jewish rites, of a couple who had also been previously married, but under what circumstances was not stated; the ages of the bridegrooms were 23 in both cases, whilst those of the brides were 18 and 19 respectively.

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.

431. Of the 4 Aboriginal marriages which took place in 1885, 1 was solemnized according to the rites of the Moravians, 1 was according to those of the Church of England, and 2 were according to those of the Presbyterians. Sects of
Aboriginals
married.

432. Of the 31 marriages of Chinese in 1885, 7 were celebrated according to the rites of the Church of England, 6 according to those of the Presbyterians, 8 according to those of the Wesleyans, 4 according to those of the Independents, 2 according to those of the Baptists, 1 was according to those of the Primitive Methodists, and 3 were performed by lay registrars. Sects of
Chinese
married

433. The returns of the census of 1881 afford an opportunity of comparing the number of marriages performed according to the rites of each particular denomination with the numbers of that denomination in the population; and by taking the mean of the returns of that census and the preceding one, and of the marriages which were performed in the interval which elapsed between the two censuses, the same information is obtained extending over a period of ten years. The result is given in the following table :— Marriages
by different
sects.

PROPORTION OF MARRIAGES TO NUMBERS OF EACH DENOMINATION.

Religious Denomination.	Persons of each Denomination 1881.	Marriages celebrated annually, 1880 to 1882.		Persons of each Denomination (mean of 1871 and 1881).	Marriages celebrated annually, 1871 to 1880.	
		Mean Number.	Proportion per 1,000 persons living.		Mean Number.	Proportion per 1,000 persons living.
Church of England ...	311,291	1,554·3	5·00	284,563	1,226·4	4·31
Presbyterians ...	132,591	1,107·0	8·35	122,787	1,018·6	8·30
Wesleyans ...	108,393	936·3	8·64	99,209	815·5	8·22
Bible Christians ...	6,660	117·3	17·57	5,427	84·0	15·48
Independents ...	19,878	286·3	14·40	19,034	269·8	14·17
Baptists ...	20,373	234·0	11·49	18,342	184·0	10·03
Lutherans ...	11,149	57·3	5·14	10,854	50·8	4·68
Unitarians ...	942	2·0	2·12	979	·9	·92
Society of Friends ...	282	...	...	308	·4	1·30
Calvinistic Methodists	712	6·3	8·85	1,072	8·2	7·65
Roman Catholics ...	203,480	828·3	4·07	187,050	856·8	4·58
Jews ...	4,330	24·0	5·54	3,950	21·1	5·34
Other sects ...	8,465	69·3	...	7,430	52·8	...
Residue ...	33,800*	607·7†	...	35,932*	389·1†	...
Total...	862,346	5,830·3	6·76	796,937	4,978·4	6·25

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

† Marriages by lay registrars.

Sects which perform most marriages and vice versa.

434. It will be observed that the denominations which solemnize most marriages in proportion to their numbers in the population are the Bible Christian, the Independent, and the Baptist, in the order named. In all these cases the proportion in the three years of which the census year is the middle, viz., 1880 to 1882, was higher than that shown for the decennium. In proportion to their respective numbers, the marriages performed in the three years named according to the rites of the Church of England, the Lutherans, and the Jews were more numerous, and those according to the rites of the Wesleyans, Presbyterians, and Calvinistic Methodists were much more numerous than those performed according to the rites of the Roman Catholic Church; but, according to the average of the decennium, more marriages were solemnized according to the rites of the Roman Catholic Church than according to those of the Church of England.

Signing with marks.

435. 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 1885, the proportion of those who signed with marks to the total numbers married being also shown:—

SIGNING MARRIAGE REGISTER WITH MARKS, 1885.

Persons Married.	Numbers Married.	Signing with Marks.	
		Total Number.	Number in every 100 Married.
Bridegrooms	7,395	189*	2·56
Brides	7,395	194	2·62
Mean	7,395	188	2·59

Increased numbers signing in writing.

436. In proportion to the total numbers married, a very satisfactory increase has taken place of late years in the number of both males and females signing the marriage register in writing. With few exceptions, a constant improvement has been apparent from year to year—nearly every year, as compared with its predecessor, showing a smaller proportion of persons signing with marks. In 1885, the proportion of men signing with marks was slightly higher than in 1884, but, with this exception, the proportion of both men and women signing with marks was much lower than in any previous year, as will be seen by the following figures, which show the proportions for the last thirteen years:—

* Of these, 6 were Chinese, who signed in the Chinese character. If these be excluded, the number signing with marks in every 100 married would be reduced to 2·47.

NUMBERS SIGNING WITH MARKS PER 100 MARRIED,
1873 TO 1885.

Year.	Men.	Women.	Mean.
1873	6.55	9.97	8.26
1874	6.52	9.91	8.22
1875	5.48	9.43	7.46
1876	5.31	7.50	6.41
1877	5.04	6.02	5.53
1878	4.12	5.30	4.71
1879	3.81	5.60	4.71
1880	4.18	4.09	4.13
1881	2.90	4.16	3.53
1882	2.88	3.27	3.07
1883	3.09	3.47	3.28
1884	2.55	2.77	2.66
1885	2.56*	2.62	2.59

437. 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 :—

Signing with marks, 1853 to 1872.

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

Men.	Women.	Mean.
9.18	20.71	14.95

438. The marriages in which marks instead of writing were made use of in 1885 numbered 349, but in only 34 of these, or a sixth, did both parties use marks. In the 315 other instances either the husband or the wife signed in writing. Thus, whereas the marriages in which one or both could not write amounted to less than a twentieth of the whole, in the case of only about 1 in every 220 marriages could neither party write.

Cases of both signing with marks.

439. In the case of the 4 marriages between Aborigines which took place in 1885, 1 of the males and 1 of the females signed with marks.

Signatures of Aborigines.

440. 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 1885 and the average of the ten years

Signing with marks in each sect.

* See footnote to last page.

ended with 1880. 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 1885.			Ten Years: 1871 to 1880.		
	Men.	Women.	Mean.	Men.	Women.	Mean.
Church of England ...	1·84	2·16	2·00	4·54	6·11	5·33
Presbyterians ...	1·01	1·77	1·39	3·67	5·97	4·82
Wesleyans ...	2·01	1·68	1·84	} 4·15	5·33	4·74
Bible Christians ...	3·85	·55	2·20			
Independents ...	2·06	1·03	1·54	3·37	5·49	4·43
Baptists ...	3·31	2·92	3·12	3·48	5·22	4·35
Lutherans ...	...	...	...	1·77	4·13	2·95
Calvinistic Methodists ...	...	...	...	1·22	6·10	3·66
Roman Catholics ...	4·50	4·77	4·63	10·14	15·43	12·79
Jews ...	2·63	2·63	2·63	·95	·47	·71
Other sects ...	2·25	2·25	2·25	7·01	3·79	5·40
Lay registrars ...	6·57	7·04	6·80	6·60	12·93	9·77
Total ...	2·56*	2·62	2·59	5·31	7·93	6·62

Roman Catholic and civil marriages.

441. It will be observed that the proportion of those signing with marks is higher amongst marriages performed according to the rites of the Roman Catholic Church than amongst those celebrated by any other religious denomination, but that the numbers in 1885 show a very considerable improvement as compared with the decennial period. The proportion so signing amongst civil marriages, although usually lower, was in the last three years considerably higher than amongst marriages by Roman Catholics.

Marriages by Unitarians, Calvinists, and Jews.

442. In 19 marriages by Unitarians which took place in the fifteen years ended with 1885, not one instance occurred of either of the parties signing with a mark; this sect, therefore, finds no place in the above table. In 104 marriages by Calvinistic Methodists during the same period, all but two of the males signed in writing, but 5 of the females signed with marks, and in 356 marriages of Jews only 5 persons signed with marks; the proportion in 1885 (2·63) was therefore accidentally high.

Signing with marks in Australasian colonies.

443. 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

* See footnote to table following paragraph 435 ante.

percentages for the eight years 1877 to 1884 have been deduced. The colonies are placed in order according to the state of education thus displayed, the colony with the smallest proportion signing with marks being placed first, and that with the reverse last:—

SIGNING WITH MARKS IN AUSTRALASIAN COLONIES, 1877 TO 1884.

Colony.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
1. Victoria ...	1877	5.04	6.02	5.53
	1878	4.12	5.30	4.71
	1879	3.81	5.60	4.71
	1880	4.18	4.09	4.13
	1881	2.90	4.16	3.53
	1882	2.88	3.27	3.07
	1883	3.09	3.47	3.28
	1884	2.55	2.77	2.66
2. New Zealand ...	1877	3.95	8.54	6.25
	1878	2.96	6.85	4.90
	1879	3.31	6.41	4.86
	1880	2.77	5.38	4.08
	1881	3.20	6.79	4.99
	1882	2.50	4.97	3.73
	1883	2.91	4.62	3.76
	1884	2.82	4.45	3.63
3. South Australia ...	1877	6.14	7.89	7.01
	1878	5.09	7.00	6.04
	1879	6.48	6.93	6.70
	1880	5.19	6.81	6.00
	1881	4.37	6.85	5.61
	1882	4.43	5.14	4.78
	1883	4.02	5.36	4.69
	1884	2.86	3.80	3.33
4. New South Wales ...	1877	8.45	11.07	9.76
	1878	7.71	8.52	8.11
	1879	6.86	8.31	7.58
	1880	6.07	7.27	6.67
	1881	5.52	8.35	6.93
	1882	5.09	6.16	5.62
	1883	5.66	6.54	6.10
	1884	4.68	5.79	5.24
5. Queensland ...	1877	7.78	14.15	10.97
	1878	6.23	13.30	9.76
	1879	6.86	11.97	9.41
	1880	5.82	12.09	8.95
	1881	4.93	9.92	7.42
	1882	5.16	9.69	7.42
	1883	5.35	8.40	6.88
	1884	4.06	7.48	5.77

Victoria the least illiterate colony. 444. By these figures it appears that the proportion of persons able to sign in writing is almost always larger in this than in any other colony. Next to Victoria in this respect is New Zealand, in which the proportion of males signing in writing was in two of the years—viz., 1882 and 1883—even larger than in this colony. The colonies, generally, show improvement from year to year, and there is every reason to expect that in all the colonies, as the children educated under the compulsory systems established arrive at marriageable ages, it will become a rare occurrence for a marriage to be attested otherwise than in writing.

Signing with marks in the United Kingdom. 445. No returns are at hand showing the manner in which the marriage registers are signed in British colonies other than those named. The following, however, taken from the reports of the respective Registrars-General, are the proportions using marks in England, Scotland, and Ireland:—

SIGNING WITH MARKS IN THE UNITED KINGDOM.

Country.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
England and Wales ...	1883	12·6	15·5	14·0
Scotland	1882	6·8	13·2	10·0
Ireland	1879	28·0	32·9	30·4

Illiteracy in United Kingdom and colonies compared. 446. From the figures it would seem that Scotland is before and Ireland much behind England in point of adult education, but that all are very far behind even the most backward of the Australasian colonies. As regards England, the Registrar-General reports that the proportions in 1883 were considerably lower than any previously recorded, and testify to satisfactory progress in elementary education. He shows that ten years previously as many as 19 men and 25 women in every 100 married were unable to sign the marriage register otherwise than with a mark.*

Signing with marks in France. 447. The only other countries respecting which similar particulars are at hand are France and Italy, the particulars, moreover, not being of very late date. In France, according to the returns of 1877, illiteracy—by the marriage register test—is somewhat more prevalent amongst males, and very much more so amongst females, than in England and Wales, but in both cases is considerably less prevalent than in Ireland.

* See 46th Annual Report of the Registrar-General of England and Wales, page xi.

In France, the proportions signing with marks in every 100 marriages during 1877 were—males, 18·52 ; females, 29·60 ; mean, 24·06. In Italy the proportion signing with marks in every 100 marriages during 1867 were—males, 21·6; females, 30·0; mean 25·8; showing a larger proportion of illiteracy than in any of the other countries named, except Ireland.

448. The age of both bridegroom and bride was specified in the case of all but 61 of the 7,395 marriages which took place in 1885.* In 50 of the defective entries the age of neither party was given ; in 5 cases the age of the husband was stated, but not that of the wife ; and in 6 instances the age of the wife was given, but not that of the husband. The following table shows the ages of the husbands and of the wives in combination :—

Ages of bride-grooms and brides in combination.

AGES OF BRIDEGROOMS AND BRIDES IN COMBINATION, 1885.

Ages of Bridegrooms.	Ages of Brides.																Total Bridegrooms.			
	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	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	5
18 to 19 "	2	...	3	1	3	2	...	...	...	...	...	...	...	...	...	...	...	11
19 to 20 "	3	7	12	9	3	8	2	...	...	...	...	...	...	...	...	...	...	44
20 to 21 "	1	9	20	19	16	46	6	...	...	...	...	...	...	...	...	...	...	117
21 to 25 "	2	2	20	90	158	222	252	1447	250	27	7	2	...	...	...	...	...	...	1	2480
25 to 30 "	...	3	14	27	97	166	175	1323	724	75	21	3	...	1	...	...	...	...	1	2630
30 to 35 "	...	1	2	7	16	33	38	306	315	94	21	6	1	1	...	...	...	...	1	842
35 to 40 "	1	3	9	5	20	127	133	76	46	13	3	...	...	...	...	...	1	437
40 to 45 "	1	...	2	5	6	43	47	46	47	26	7	3	1	...	...	...	...	234
45 to 50 "	1	...	2	2	2	22	40	34	27	30	26	2	2	1	...	...	...	191
50 to 55 "	1	...	...	...	1	11	18	28	26	25	25	17	2	1	...	...	1	156
55 to 60 "	1	1	10	14	6	7	13	18	19	8	7	...	...	...	104
60 to 65 "	2	2	6	6	9	8	9	5	...	1	...	48
65 to 70 "	5	2	1	...	3	6	6	1	1	...	...	25
70 to 75 "	1	1	...	...	2	...	2	3	1	...	...	...	10
75 to 80 "	1	...	2	...	...	...	3
80 to 85 "	1	...	...	...	...	...	...	...	...	1	...	...	2
Unspecified	1	2	1	...	2	...	...	...	...	...	...	...	...	50	...	56
Total Brides	2	6	47	144	321	466	518	3348	1559	390	209	126	92	60	31	18	2	1	55	7395

NOTE.—This table may be read thus:—Two men between 45 and 50 married girls between 18 and 19 ; two women between 40 and 45 married men between 21 and 25, &c.

449. An examination of the 7,334 cases in which the ages of both parties are specified will show that in 2,423 instances, or 33 per cent. Relative ages of husband and wife.

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

of the whole, both parties to the marriage were about the same age; in 532 instances, or 7 per cent. of the whole, the wife was older than the husband; and in 4,379 instances, or 60 per cent. of the whole, the husband was older than the wife.

Inequalities
of age.

450. Some striking inequalities of age amongst the parties married appear in several of the columns, as, for instance, a man between 80 and 85 married a woman between 21 and 25; two men between 70 and 75 married women between 21 and 30; two men between 55 and 60 married girls aged 19 and 20; a man between 50 and 55, one between 45 and 50, and another between 40 and 45, married girls aged 16. On the other hand, a youth of 17 and two youths of 18 married women between 21 and 25; two men between 21 and 25 married women between 40 and 45; a man between 25 and 30, and another between 30 and 35 married women between 50 and 55.

Age at which
marriage is
contracted.

451. The next table has been designed for the purpose of showing the age at which persons of either sex generally marry, the information being given for the year 1885 and for the decennial period 1871 to 1880:—

PROPORTION OF MALES AND FEMALES MARRYING AT DIFFERENT AGES, 1871-80 AND 1885.

Ages.	Bridegrooms.			Brides.		
	Numbers, 1885.	Proportions per 1,000.		Numbers, 1885.	Proportions per 1,000.	
		Year 1885.	Ten Years, 1871-80.		Year 1885.	Ten Years, 1871-80.
Under 15 years ...	...	...	...	2	·27	·48
15 to 16 „ ...	...	...	...	6	·81	2·71
16 to 17 „ ...	...	...	·02	47	6·40	12·74
17 to 18 „ ...	5	·68	·46	144	19·62	36·74
18 to 19 „ ...	11	1·50	1·57	321	43·73	62·69
19 to 20 „ ...	44	6·00	6·33	466	63·50	80·93
20 to 21 „ ...	117	15·94	16·79	518	70·57	86·94
21 to 25 „ ...	2,480	337·92	281·06	3,348	456·13	375·69
25 to 30 „ ...	2,630	358·36	295·83	1,559	212·40	174·64
30 to 35 „ ...	842	114·73	165·38	390	53·13	69·13
35 to 40 „ ...	437	59·54	97·22	209	28·47	44·26
40 to 45 „ ...	234	31·88	59·54	126	17·17	26·44
45 to 50 „ ...	191	26·03	37·58	92	12·53	14·99
50 to 55 „ ...	156	21·26	20·49	60	8·17	6·79
55 to 60 „ ...	104	14·17	9·92	31	4·24	3·03
60 to 65 „ ...	48	6·54	4·96	18	2·45	1·16
65 to 70 „ ...	25	3·41	1·85	2	·27	·40
70 and upwards ...	15	2·04	1·00	1	·14	·24
Total ...	7,339*	1,000·00	1,000·00	7,340*	1,000·00	1,000·00

* The bridegrooms and brides of unspecified ages being omitted, these numbers are less than those in the last table, the bridegrooms by 56 and the brides by 55. The reason of the bridegrooms being fewer than the brides is that the age was not stated in the case of one more of the former than of the latter.

452. The large proportion of both sexes marrying at between 21 and 30 years of age is very marked. Owing, no doubt, to the relatively larger numbers in the population, the proportions at these ages in 1885 are much higher than those relating to the decennial period. Frequency of marriage at 21 to 30.

453. In almost all civilized countries, minors are not permitted to marry without the consent of their parents or guardians, but the youngest age at which persons may marry after obtaining such consent varies in different countries, ranging from 14 for males and 12 for females in the United Kingdom and several other countries, to 21 for males and 18 for females in the United States. The figures in the following table, giving information on the subject, have been taken from an excellent American publication, *The Annual Statistician*:—* Age at which persons may marry.

AGE AT WHICH MARRIAGE MAY BE CONTRACTED IN DIFFERENT COUNTRIES.

Country.	Age at, and after, which persons may marry.	
	Males.	Females.
	Years.	Years.
Austria	14	14
Belgium	18	15
France	18	15
Germany	18	14
Greece	14	12
Hungary (Protestants) ...	18	15
" (Roman Catholics) ...	14	12
Portugal	14	12
Russia	18	16
Spain	14	12
Switzerland	14	12
Turkey	Puberty	Puberty
United Kingdom	14	12
United States	21	18

454. The minimum age at which persons may, with consent, marry, is the same in Victoria as in the United Kingdom, viz., 14 for males and 12 for females; but, as a matter of fact, marriages are seldom contracted at such early ages. Five of the males, however, who married in 1885 had not completed their eighteenth year, and two of the females had not completed their fourteenth year; six other females had not completed their sixteenth; as many as 177 of the males, or 1 in every 42, and no fewer than 1,504 of the females, or about a fifth, had not attained the full age of 21 years. Marriages of minors!

* See that work, page 600, McCarty, San Francisco, California, 886.

Marriages
of minors in
Victoria and
England.

455. From the experience of Victoria during the decade 1871-80, it would appear that, in proportion to the total numbers marrying, more females but fewer males marry under age in this colony than in England and Wales. In 1885, however, the proportion of both males and females marrying under age was lower in Victoria than in England. This is shown by the figures in the following table:—

MARRIAGES OF MINORS IN VICTORIA AND ENGLAND AND WALES.

Persons Married.	In every 100 Marriages, Numbers under 21 Years of Age.		
	In Victoria.		In England and Wales.
	Year 1885.	Ten Years: 1871 to 1880.	Ten Years: 1871 to 1880.
Bridegrooms ...	2·41	2·52	7·95
Brides ...	20·49	28·32	21·96
Mean ...	11·45	15·42	14·96

Marriage
rate of
minors.

456. As the proportion of minors at marriageable ages existing in the population may vary greatly in different countries, and in the same country at different times, it will readily be understood that a comparison of the marriages of minors with the total number of marriages does not afford an infallible test of the tendency to marry under age, to determine which accurately the number of minors marrying should be compared with the number of marriageable minors in the population. This has been done for the last two census periods, and the year 1885, and the result is given in the following table:—

MARRIAGES OF MINORS, 1871, 1881, AND 1885.

Year.	Number of Marriageable Minors.*		Mean Annual Number of Minors who Married.†		Proportion of Minors who Married to every 1,000 Marriageable Minors Living.	
	Males Aged 17 to 21.	Females Aged 15 to 21.	Males.	Females.	Males.	Females.
1871 ...	19,816	30,306	85	1,305	4·29	43·05
1881 ...	37,675	57,863	151	1,420	4·01	24·54
1885 ...	45,590	61,750	177	1,504	3·88	24·35

* Census figures for 1871 and 1881, estimated for 1885.

† Mean of the years 1870 to 1872 and of the years 1880 to 1882, and actual number for 1885.

457. According to the table, the proportion of both males and females marrying under age has become reduced during the last 15 years. The reduction in the proportion of male minors marrying is only slight, but that of the female minors between 1871 and 1881 is very striking, and is no doubt attributable to the area of selection having been widened by the increase which has taken place in the number of marriageable females at the older ages.

Decreasing tendency to marry under age.

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

Ages of minors marrying in Victoria and England.

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

Age last Birthday.	Victoria.				Proportion of Marriages per 1,000 Marriageable Minors.			
	Marriageable Minors at Census of 1881.		Minors who Married. (Mean of Three Years, 1880-82.)		Males.		Females.	
	Males.	Females.	Males.	Females.	Victoria. (Mean of 1830 to 1882.)	England and Wales. (Mean of 1870 to 1872.)	Victoria. (Mean of 1880 to 1882.)	England and Wales. (Mean of 1870 to 1872.)
15	...	10,076	...	11	...	...	1.09	.18
16	...	10,209	...	39	...	.02	3.82	1.53
17	9,718	10,100	3	146	.31	.41	14.45	9.33
18	9,763	9,966	10	282	1.02	4.04	28.29	36.39
19	9,580	9,352	36	443	3.76	20.34	47.37	72.46
20	8,614	8,160	102	499	11.84	52.98	61.15	105.84
Total...	37,675	57,863	151	1,420	4.01	18.32	24.54	34.08

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

Marriage rate of minors lower in Victoria than England.

* See 35th Annual Report of the Registrar-General of England, page xii.

† In this table, and that following paragraph 456, marriageable minors have been considered to be males from 17 to 21, females 15 to 21. In England, there were 4 marriages of males at 16, but there were none at that age in Victoria.

‡ See table following paragraph 455 ante.

Age of marriage in various countries.

460. The following table contains a statement of the proportion of males and females marrying at different ages in various countries. The figures, except those relating to Victoria, which are for the year 1885, have been taken from the 46th Report of the Registrar-General of England* :—

AGES OF MALES AND FEMALES MARRYING IN VARIOUS COUNTRIES.

Countries.	Per 10,000 of All Ages Marrying, Numbers—						
	Under 20.	20 to 25	25 to 30	30 to 40	40 to 50	50 to 60	Over 60
BRIDEGROOMS.							
Victoria	82	3,539	3,584	1,743	579	354	119
England and Wales ...	329	4,805	2,538	1,436	510	256	126
Scotland	311	3,919	2,965	1,877	604	237	87
Ireland	253	3,003	3,056	2,643	685	242	118
Denmark	2,092		3,820	2,968	752	279	89
Norway	173	2,681	3,530	2,459	699		458
Sweden	6	2,325	3,569	2,883	778		439
Russia (in Europe) ...	3,784	3,063	1,230	1,183	549		191
Austria	2,084		4,172	2,311	848	415	170
Hungary	3,173		4,571	1,255	604	296	101
Switzerland	127	2,525	3,133	2,710	927	404	174
Prussia	58	6,716		2,265	624	256	81
Bavaria	19	1,875	3,674	3,002	1,244		186
Saxony	38	3,432	3,823	1,767	561	278	101
Holland	256	2,405	3,370	2,659	846	345	119
Belgium	94	2,161	3,467	2,952	885	322	119
France	236	2,469	3,757	2,512	622	282	122
Italy	107	2,491	3,699	2,611	704	266	122
BRIDES.							
Victoria	1,343	5,267	2,124	816	297	124	29
England and Wales ...	1,441	4,966	1,911	1,091	407	145	39
Scotland	1,338	4,570	2,325	1,314	370	72	11
Ireland	1,349	4,899	2,275	1,104	264	77	32
Denmark	616	3,608	3,076	2,054	515	112	19
Norway	824	3,919	2,889	1,749	476		143
Sweden	555	3,413	3,089	2,225	573		145
Russia (in Europe)†	5,801	2,120	699	616	229		35
Austria	1,807		2,851	2,881	1,696	590	175
Hungary	3,604		3,422	1,604	810	408	152
Switzerland	879	3,876	2,498	1,886	656	173	32
Prussia	1,030	6,974		1,487	403	92	14
Bavaria	644	3,532	2,949	2,061	761		53
Saxony	1,073	4,500	2,588	1,305	406	110	18
Holland	1,084	3,236	2,897	1,976	599	174	34
Belgium	640	3,573	2,770	2,124	647	193	53
France	2,116	3,911	2,048	1,374	377		174
Italy	1,692	4,384	2,195	1,254	347	101	27

* Table D., page x.

† The figures, which are those of the Registrar-General of England, add in this line only to 9,500 instead of to 10,000.

461. It appears by this table that, in proportion to the whole numbers marrying, fewer males marry under 20 in Victoria than in any of the countries named, except Sweden, Prussia, Bavaria, and Saxony, but, on the other hand, that more females marry under that age in Victoria than in any of those countries except England, Ireland, France, Italy, and Russia. Attention is called to the very large proportion shown as marrying under age in the last-named country, exceeding a third of the total marriages in the case of the males, and exceeding half in the case of the females.

Marriages of minors in different countries.

462. The returns of the Australasian censuses of 1881 give information respecting the conjugal condition of the people living within the borders of the various colonies. These are grouped so as to enable the results to be easily compared.

Conjugal condition in Australasian colonies.

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

Husbands and wives in Australasian colonies.

HUSBANDS AND WIVES IN EACH AUSTRALASIAN COLONY, 1881.

Colony.	Husbands.			Wives.		
	Under 21 Years.	Over 21 Years.	Total.	Under 21 Years.	Over 21 Years.	Total.
Victoria ...	283	124,371	124,654	3,006	123,036	126,042
New South Wales ...	408	109,810	110,218	4,040	103,793	107,833
Queensland ...	118	30,004	30,122	1,285	28,839	30,124
South Australia ...	95	43,860	43,955	1,344	42,339	43,683
Western Australia ...	15	4,260	4,275	207	3,769	3,976
Total ...	919	312,305	313,224	9,882	301,776	311,658
Tasmania* ...	73	17,671	17,744	607	16,527	17,134
New Zealand... ..	97	73,234	73,331	2,374	70,433	72,807
Grand Total ...	1,089	403,210	404,299	12,863	388,736	401,599

464. It is to be regretted that no figures are at hand showing the conjugal condition of males and females at marriageable ages living in countries out of Australasia ; but the following table contains a statement of the proportions of those of both sexes and all ages unmarried, married, and widowed in various countries. The figures, except those in the first line, have been taken from *Mulhall's Dictionary of Statistics* † :—

Conjugal condition in various countries.

* In this line the numbers under and over 21 have been partly estimated.

† Page 305.

CONJUGAL CONDITION IN VARIOUS COUNTRIES—BOTH SEXES, AND ALL AGES.

Countries.	Numbers in every 1,000 Living.		
	Unmarried.	Married.	Widowed.
Victoria	665	294	41
England	602	345	53
France	511	405	84
Prussia	606	336	58
Wurtemberg	623	319	58
Austria	605	342	53
Hungary	532	407	61
Italy	582	352	66
Switzerland	609	319	72
Spain	572	360	68
Portugal	628	310	62
Holland	611	328	61
Belgium	629	315	56
Scandinavia	618	330	52
Chili	688	260	52

Small proportion of married in Victoria.

465. It appears from this table that, in Victoria, in proportion to the numbers of the population, fewer persons are living in the marriage state than in any of the other countries named, except Chili; and fewer are living in the widowed state than in any of those countries. This is probably in part accounted for by the fact that the proportion living at marriageable ages, especially of males, is smaller in Victoria than in most of those countries.

Births, 1885.

466. The births registered in Victoria during 1885 numbered 29,975, as against 28,850 in 1884. The increase in the year under review, as compared with the previous one, was thus 1,125.

Births in 1885 and former years.

467. During the 15 years ended with 1885, the number of births in Victoria had remained almost stationary; but in 1884 a marked increase took place, which was more than sustained in 1885, the number of births in it being the highest ever recorded.*

Birth rate.

468. In proportion to population, however, the births decreased steadily for a number of years. The marriage rate also declined until 1879, when a revival took place; but there has not been a corresponding improvement in the birth rate, which has advanced but slightly since 1883, that being the year in which it reached its absolutely lowest point. The following are the figures for the last twenty-six years:—

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

ANNUAL BIRTH RATE, 1860 TO 1885.

				Births per 1,000 of Mean Population.					Births per 1,000 of Mean Population.
1860	...	...	...	42·81	1874	...	...	...	34·46
1861	...	...	...	43·46	1875	...	...	...	33·94
1862	...	...	...	44·50	1876	...	...	...	33·61
1863	...	...	...	42·46	1877	...	...	...	32·17
1864	...	...	...	43·79	1878	...	...	...	32·36
1865	...	...	...	42·40	1879	...	...	...	32·18
1866	...	...	...	39·76	1880	...	...	...	30·75
1867	...	...	...	39·75	1881	...	...	...	31·24
1868	...	...	...	41·08	1882	...	...	...	30·04
1869	...	...	...	37·89	1883	...	...	...	30·02
1870	...	...	...	38·07	1884	...	...	...	30·49
1871	...	...	...	37·15	1885	...	...	...	30·74
1872	...	...	...	36·33	Mean of 26 years ...				36·47
1873	...	...	...	36·71					

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

Proportion of births to population and to married women.

PROPORTION OF BIRTHS TO POPULATION AND TO MARRIED WOMEN.

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

470. It will be noticed that the married women at reproductive ages were fewer by 3,730 in 1881 than in 1871, that the proportion of births to such women, viz., 302 $\frac{2}{3}$ per 1,000, was exactly the same in both years, but that the proportion of births to the total population was considerably less in 1881 than in 1871. Thus, while the birth rate based upon a comparison of the births with the married women remained perfectly steady, that rate based upon a comparison of the births with the population showed a falling-off of nearly 7 per 1,000. The reduction in the birth rate, calculated in the ordinary way, which has been noticed for

Reason for decline of birth rate.

* In both cases, these are the legitimate births which occurred during the twelve months of which the census was the middle.

years past, is therefore conclusively shown—at any rate so far as the period 1871 to 1881 is concerned—to be due to a deficiency in the community of married women at the fruitful period of life.

Birth rates
in Austral-
asian
colonies.

471. Returns of the births in all the Australasian colonies are available to the end of 1884, and from these and the mean populations of the respective colonies during each year the birth rates have been calculated in the office of the Government Statist, Melbourne. The following table gives the birth rates of the different colonies for each year from 1865 to 1884, or as many years between those periods as the figures are available for:—

BIRTH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1884.*

Year.	Number of Births per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865	42·40	42·99	43·65	43·90	...	32·56	41·12
1866	39·76	40·22	44·86	42·38	...	29·15	42·89
1867	39·75	41·67	45·66	41·87	...	30·34	42·18
1868	41·08	40·43	43·03	41·51	...	30·03	42·14
1869	37·89	40·41	42·83	39·03	...	28·27	41·90
1870	38·07	39·76	43·51	38·48	...	30·18	42·32
1871	37·15	39·42	43·25	38·34	...	30·16	40·64
1872	36·33	38·27	40·70	37·60	32·42	29·44	39·50
1873	36·71	39·01	40·82	36·42	31·43	29·43	39·00
1874	34·46	38·75	41·11	38·22	33·71	29·72	40·27
1875	33·94	37·83	38·90	35·70	28·72	29·88	40·23
1876	33·61	37·69	37·48	37·71	33·98	30·11	41·73
1877	32·17	36·92	36·75	37·36	33·07	30·21	41·28
1878	32·36	37·36	35·77	38·23	31·11	32·27	42·14
1879	32·18	37·72	36·74	38·96	34·38	32·05	40·32
1880	30·75	39·04	36·92	38·94	32·35	32·91	40·78
1881	31·24	38·00	37·19	38·66	33·67	33·40	37·95
1882	30·04	37·16	35·85	37·40	35·84	33·50	37·32
1883	30·02	37·09	36·92	37·37	33·87	34·25	36·28
1884	30·49	37·92	35·75	38·38	33·84	35·66	35·91
Means ...	35·02	38·88	39·88	38·82	32·95	31·18	40·40

Birth rates in
Australasian
colonies in
1884 and
previous
years.

472. For several years past the birth rate has been falling off in Victoria, Queensland, and New Zealand. In Victoria the rate declined steadily from the earliest years named in the table to a minimum in 1883, which was only slightly exceeded in 1884. In Queensland the decline dates from 1875, and in New Zealand from 1879, and has been continuous ever since in both colonies. In New South Wales and South Australia during the last ten years the rate has fluctuated somewhat, but is still high. In Tasmania the rate has been increasing for

* For the number of births in the various colonies during the twelve years ended with 1885, see General Summary of Australasian Statistics (third folding sheet) *ante*. For birth rates in 1885, see Appendix A *post*.

several years past coincidently with a rising marriage rate,* and the increase is still well sustained. In the small community of Western Australia the birth rate fluctuates considerably, but has, on the whole, increased since 1878, reaching a maximum in 1882. The diminished birth rate in Victoria between 1871 and 1881 has already been accounted for by the falling-off which occurred in the number of mothers; and it is probable that the low birth rates now prevailing in some of the other colonies are due to a similar cause.

473. 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 twenty years. It will be observed that Victoria is absolutely last on the list for 1884, but stands fifth in the twenty-year series:—

Order of colonies in respect to birth rates.

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO BIRTH RATES.

Order in 1884.	Order in a Series of Years.
1. South Australia.	1. New Zealand.
2. New South Wales.	2. Queensland.
3. New Zealand.	3. New South Wales.
4. Queensland.	4. South Australia.
5. Tasmania.	5. Victoria.
6. Western Australia.	6. Western Australia.
7. Victoria.	7. Tasmania.

474. On the continent of Australia, taken as a whole, and on that continent, combined with Tasmania and New Zealand, the birth rate in 1884 shows some improvement on the rates which obtained in the two previous years. The following are the figures for the twelve years ended with 1884:—

Birth rate in Australia and Australasia.

BIRTH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1884.

Year.	Number of Births per 1,000 of Mean Populations.	
	Continent of Australia.	Australia with Tasmania and New Zealand.
1873	37·36	37·19
1874	36·46	36·70
1875	35·29	35·82
1876	35·20	36·04
1877	34·15	35·16
1878	34·31	35·51
1879	34·55	35·42
1880	35·33	36·20
1881	35·22	35·63
1882	34·18	34·73
1883	34·31	34·66
1884	34·83	35·05
Means	35·10	35·68

* See paragraph 408 ante.

Birth rates in
British
possessions.

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

BIRTH RATES IN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Births per 1,000 of the Population.
Ceylon	1867-76	27·7
Straits Settlements	1873-7	9·3*
Hong Kong	1875	13·8
Mauritius	1876-7	36·5
Seychelles	1875-7	37·4
Nova Scotia	1871-5	32·0
Bermudas	1871-5	37·8
British Guiana	1871-9	35·5
West Indies—		
Bahamas	1874-5	39·0
Jamaica	1878-80	34·9
St. Lucia	1869-79	46·4†
St. Vincent	1870-9	46·0
Barbadoes	1872-8	43·2
Grenada	1871-5	45·2
Antigua	1875-6	40·4
Montserrat	1874-5	48·8
Dominica	1871-6	31·0
Trinidad	1880	34·9

Birth rates in
European
countries.

476. A statement of the birth rates in British and certain Foreign countries for each of the five years ended with 1883, is given in the following table. The figures have been taken from the reports of the Registrar-General of England :—

BIRTH RATES IN EUROPEAN COUNTRIES, 1879 TO 1883.

Countries.	Number of Births per 1,000 of Mean Population.					Mean of 5 years.
	1879.	1880.	1881.	1882.	1883.	
Hungary	45·3	42·9	43·7	44·6	45·3	44·4
Austria	40·3	38·7	38·7	38·9	38·2	39·0
German Empire	38·9	37·6	37·0	37·2	36·7	37·5
Prussia	39·2	37·7	36·9	37·3	36·6	37·5
Italy	37·6	33·6	38·0	37·1	37·1	36·7
The Netherlands	37·4	35·6	34·9	35·3	34·3	35·5
Spain ... ..	...	...	...	...	...	34·9†
England and Wales	34·7	34·2	33·9	33·7	33·3	34·8
Scotland	34·7	34·0	33·7	33·3	32·5	33·6
Belgium	31·5	31·3	31·8	31·2	30·5	31·3
Norway	32·0	30·7	30·0	30·9	30·9	30·9
Sweden	30·5	29·4	29·1	29·4	28·9	29·5
Switzerland	30·5	29·6	29·8	28·8	28·4	29·4
France	25·0	24·5	24·9	24·8	24·8	24·8
Ireland	25·2	24·7	24·5	24·1	23·6	24·4

* Registrations incomplete.

† Including still-births

‡ Mean of 1876 and 1878.

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

Low birth rates in Ireland and France.

478. In the same five years the mean birth rates in New Zealand, South Australia, and New South Wales were above those in any of the European countries named, except Hungary and Austria; the mean birth rate in Queensland was above that in any except the last named two countries, together with Germany and Italy, with the rate in the latter of which it was identical; the mean birth rate in Western Australia was between that in England and Scotland, and that in Tasmania was between that in Scotland and Belgium; the mean birth rate in Victoria was below that in any of the countries named, except Sweden. The following are the birth rates referred to:—

Australasian and European birth rates compared.

MEAN BIRTH RATES IN AUSTRALASIAN COLONIES, 1879 TO 1883.

	Number of Births per 1,000 of Mean Population.				
New Zealand	38·53
South Australia	38·27
New South Wales	37·80
Queensland	36·72
Western Australia	34·02
Tasmania	33·22
Victoria	30·85

479. According to the reports of the Registrar-General of England, the birth rate of the United Kingdom was lower in 1883 than in any year since 1870, as will be seen by the following figures:—

Birth rate in United Kingdom.

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

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

BIRTH RATE IN THE UNITED KINGDOM, 1871 TO 1883.

Births per 1,000 of the Population.			Births per 1,000 of the Population.		
1871	...	35·0	1879	...	33·5
1872	...	34·4	1880	...	32·7
1873	...	34·1	1881	...	32·5
1874	...	34·5	1882	...	32·2
1875	...	34·0	1883	...	31·8
1876	...	34·9			
1877	...	34·5	Mean	...	33·6
1878	...	34·1			

Birth rates
in town and
country,
1885.

480. The following table shows the births and birth rates in the metropolis, the extra-metropolitan towns, and the country districts of Victoria during 1885; also the estimated population of such divisions about the middle of that year:—

BIRTHS IN URBAN AND COUNTRY DISTRICTS, 1885.

Districts.	Estimated Mean Population.	Births, 1885.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs (Greater Melbourne)	345,380	12,066	34·94
Extra-Metropolitan towns	191,020	6,087	31·87
Country districts ...	438,640	11,822	26·95
Total ...	975,040	29,975	30·74

Birth rates
in town and
country,
1873 to 1885.

481. The next table shows the number of births per 1,000 of the population of the same three divisions of the colony during each of the last thirteen years:—

BIRTH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1885.

Year.	Number of Births per 1,000 of the Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1873	34·36	40·18	36·32	36·71
1874	32·98	39·81	32·46	34·46
1875	33·63	38·63	31·54	33·94
1876	33·20	37·80	31·61	33·61
1877	33·09	34·51	30·30	32·17
1878	33·67	35·42	29·89	32·36
1879	33·32	35·65	29·63	32·18
1880	31·19	34·21	28·72	30·75
1881	32·42	34·84	28·66	31·24
1882	32·85	31·35	27·41	30·04
1883	33·15	32·07	26·81	30·02
1884	33·81	32·80	27·01	30·49
1885	34·94	31·87	26·95	30·74

482. It will be noticed that in the first two years of the period to which the table refers the birth rate of the country districts was about equal to that of the metropolis, whilst the birth rate of the extra-metropolitan towns was very much higher than either. Since 1874, however, the metropolitan rate has been much above that of the country districts, but until 1882 was still below that of the extra-metropolitan towns. In 1882 and the subsequent years, however, owing to a falling-off in the birth rate in the extra-metropolitan towns and in the country districts, and a gradual increase in that of the metropolis, the rate in the last-named division was much above that in the other urban district. It will also be noticed that, whilst the birth rate in the metropolis in 1885 was higher than in any previous year, in the extra-metropolitan towns it was lower than in any previous year except 1882, and in country districts it was lower than in any year except 1883.

Results compared.

483. The mean population, the number of births, and the birth rate during 1885; also the birth rate during the ten years, 1871 to 1880, in the different municipalities, &c., forming the component parts of the district of Greater Melbourne, are shown in the following table:—

Birth rates in metropolitan sub-districts.

BIRTHS IN GREATER MELBOURNE.

Sub-districts.	Year 1885.			Ten Years: 1871-80.
	Estimated Mean Population.	Births.		Annual Births per 1,000 of Population.
		Total Number.	Number per 1,000 of the Population.	
Melbourne City	69,774	1,707	24.46	27.57
Hotham Town	18,883	779	41.26	34.03
Fitzroy City	27,829	957	34.39	34.57
Collingwood City	26,711	1,116	41.78	36.28
Richmond City	28,541	1,127	39.49	35.96
Brunswick Borough	8,396	385	45.86	38.66
Northcote Borough	2,500	79	31.60	...
Prahran City	28,637	1,004	35.06	32.38
South Melbourne City	33,500	1,292	38.56	32.02
Port Melbourne Borough	9,675	425	43.93	38.99
St. Kilda Borough	15,300	387	25.29	29.03
Brighton Borough	5,795	158	27.27	31.14
Essendon Borough	5,550	172	30.99	} 37.72
Flemington & Kensington Borough	4,864	188	38.65	
Hawthorn Borough	8,811	276	31.33	34.13
Kew Borough	5,040	124	24.61	26.95
Footscray Borough	9,016	432	47.92	45.62
Williamstown Town*	11,600	378	32.59	38.88
Remainder of district	19,860	658	33.13	25.83
<i>Hospitals, asylums, &c.</i> †	3,620	422	...	...
Shipping in Hobson's Bay and river	1,478 ‡	...	...	.05
Total	345,380	12,066	34.94	33.50

* Williamstown was a borough until the 30th March, 1886, when it was proclaimed a town.
 † The population given is that of all the institutions, but the Lying-in Hospital is the only one in which births occurred.
 ‡ Census figures.

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

484. It will be observed that during the ten years ended with 1880 the births in one municipality only, viz., Footscray, were above 40 per 1,000 of the population; that in six municipalities, viz., Williamstown, Essendon and Flemington, Port Melbourne, Brunswick, Collingwood, and Richmond, they were between 35 and 40 per 1,000; in six municipalities, viz., Fitzroy, Hotham, Prahran, South Melbourne, Brighton, and Hawthorn, they were between 30 and 35 per 1,000; and that in three municipalities, viz., St. Kilda, Melbourne, and Kew, they were below 30 per 1,000. The lowest rate was in "Remainder of District," viz., not quite 26 per 1,000, which was even lower than in the rural districts of the colony.*

Birth rates
in sub-dis-
tricts, 1885.

485. During 1885 the birth rates in Hotham, Collingwood, Richmond, Brunswick, Prahran, South Melbourne, Port Melbourne, Footscray, and "Remainder of District" were higher, but those in all the other sub-districts were lower, than they were in the decade ended with 1880. The sub-district with the highest birth rate in 1885 was Footscray, which was closely followed by Brunswick, Port Melbourne, Collingwood, and Hotham; those with the lowest rates were Melbourne City, Kew, St. Kilda, and Brighton, in all of which the rates were below 30 per 1,000.

Births in
Australasian
capitals.

486. In 1885 the birth rate in Melbourne was much lower than that in Sydney, Wellington, or Brisbane, slightly lower than in Hobart, but somewhat above that in Adelaide, as is shown in the following table, which gives, for that year, a statement of the estimated population and the number of births, and number per 1,000 of the population, in each of those capital cities:—

BIRTHS IN AUSTRALASIAN CAPITAL CITIES, 1885.

Capital Cities.†	Estimated Mean Population.	Births, 1885.	
		Total Number.	Number per 1000 of the Population.
Sydney	282,843	12,257	43·34
Wellington	23,066	992	43·01
Brisbane	48,150	2,025	42·06
Hobart	29,987	1,104	36·82
Melbourne	345,380	12,066	34·94
Adelaide ‡	127,013	4,270	33·62

* See table following paragraph 481 *ante*.

† With suburbs, except in the case of Wellington.

‡ There are some doubts as to whether the estimated population of Adelaide and suburbs has not been given for a somewhat larger area than that to which the returns of births relate. If this should be the case, the birth rate, as shown in the table, would obviously be lower than the true rate.

487. The mean birth rate in the Australasian capital cities in 1885 was 38·2, which was considerably higher than the rate in London, according to the average of the ten years 1870–79, viz., 35·4, which was slightly higher than that of England and Wales (35·3) during the same period. The rate in London was thus higher than that in Melbourne or Adelaide, but below that in any of the other Australasian cities named in the last table. Birth rate in London.

488. The 43rd Report of the Registrar-General of England* contains a statement of the birth rates in twenty-three British towns, in which the mean rate per 1,000 persons living is 35·9, the rates in the respective towns ranging from 30·3 in Brighton to 41·5 in Salford. The birth rates in Sydney, Wellington, and Brisbane are above those in any of the towns named; the birth rate in Hobart is above that in 12, the birth rate in Melbourne is above that in 7, and the birth rate in Adelaide is above that in 5 of those towns, as will be seen by comparing the following figures with those in the last table:— Birth rates in British towns.

BIRTH RATES IN TWENTY-THREE BRITISH TOWNS, 1880.

	Births per 1,000 of Population.		Births per 1,000 of Population.
Salford ...	41·5	Nottingham ...	35·3
Leicester ...	40·4	Bradford ...	35·3
Birmingham ...	38·4	Bristol ...	35·3
Sheffield ...	38·3	London ...	35·2
Liverpool ...	38·1	Portsmouth ...	34·8
Manchester ...	37·5	Norwich ...	33·9
Wolverhampton ...	37·4	Edinburgh ...	32·8
Hull ...	37·4	Dublin ...	32·1
Sunderland ...	37·4	Glasgow ...	31·9
Leeds ...	37·3	Plymouth ...	31·6
Newcastle-on-Tyne ...	37·1	Brighton ...	30·3
Oldham ...	35·5		

489. The same report† contains a statement of the birth rates in twenty-one Foreign towns (including two in British India), in which the mean rate is 34·5, the rates ranging from 22·9 in Geneva to 42·9 in Alexandria. The birth rates in Sydney, Wellington, and Brisbane are above those in any of the towns named; the birth rate in Hobart is above that in 12 of the towns, and is exactly equal to that of Copenhagen; the birth rate in Melbourne is above that in 10, and the birth rate in Adelaide is above that in 8, of the towns. The following are the rates in these towns, also the rates in New York and in Boston, taken from the reports of the Health Department of the former city:— Birth rates in Foreign towns.

* See 43rd Annual Report of Registrar-General, page cxi: Eyre and Spottiswoode, London, 1882.

† See 43rd Report, page cxiv.

BIRTH RATES IN TWENTY-THREE FOREIGN TOWNS, 1880.

Births per 1,000 of Population.			Births per 1,000 of Population.		
Alexandria ...	...	42·9	Amsterdam ...	...	36·6
Buda-Pesth ...	...	40·6	Dresden ...	...	34·5
Hamburg (State) ...	...	39·5	Christiania ...	...	33·7
Madras ...	...	39·4	Brussels ...	...	31·2
The Hague ...	...	39·3	New York ...	...	30·4*
Berlin ...	...	39·2	Turin ...	...	29·8
Rotterdam ...	...	38·3	Paris ...	...	28·7
Vienna ...	...	38·3	Boston (1883) ...	...	28·3
Munich ...	...	38·2	Bombay ...	...	26·6
Rome ...	...	37·3	Venice ...	...	23·9
Copenhagen ...	...	36·8	Geneva ...	...	22·9
Breslau ...	...	36·7			

Births of
males and
females.

490. The births of males in Victoria during 1885 numbered 15,455, those of females 14,520. These numbers furnish a proportion of 106·44 boys to 100 girls, as against a proportion of 105·99 in 1884. In the ten years 1871-80, 137,275 births of males and 131,435 births of females were registered, giving a proportion of 104·45 boys to 100 girls.

Births of
males and
females in
Austral-
asian
colonies.

491. In every country in which births are registered, it is found that more males are born than females. This was the case in all the Australasian colonies during the period of twelve years ended with 1884, although not in every one of those years so far as Western Australia and Tasmania are concerned. The following are the numbers of males per 100 females born in the respective colonies during each year of the period referred to :—

PROPORTION OF MALE TO FEMALE BIRTHS IN AUSTRALASIAN
COLONIES, 1873 TO 1884.

Year.	Number of Boys to 100 Girls Born.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1873 ...	102·65	104·38	106·13	102·77	109·04	98·44	103·48
1874 ...	103·94	104·31	105·74	103·44	103·25	107·02	106·83
1875 ...	104·95	102·08	104·01	103·85	98·95	109·51	107·80
1876 ...	105·76	102·47	105·26	101·08	106·76	111·48	106·01
1877 ...	104·19	106·34	106·78	102·91	101·32	105·04	104·59
1878 ...	107·19	106·83	103·89	107·14	101·15	105·52	101·57
1879 ...	104·69	105·71	103·36	102·53	117·59	99·11	105·93
1880 ...	104·44	104·99	103·63	110·98	92·37	101·56	104·71
1881 ...	104·99	105·59	106·64	106·48	108·07	107·41	104·90
1882 ...	103·63	103·23	107·55	106·36	110·64	104·81	104·46
1883 ...	105·04	104·89	106·17	103·29	104·64	110·42	105·17
1884 ...	105·98	105·37	102·25	104·40	106·42	103·37	104·28

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

492. In the Australasian colonies, taken as a whole, the proportion during the ten years ended with 1882 was 104·67 male to 100 female infants. In the different colonies, the proportions ranged from 105·3 per 100 females in Queensland to 104·6 per 100 females in Victoria and New South Wales. The following is the order of the colonies in respect to these proportions :—

Order of colonies in respect to sexes of those born.

ORDER OF COLONIES IN REFERENCE TO PROPORTION OF MALE TO FEMALE BIRTHS, 1873 TO 1882.

	Boys to 100 Girls.		Boys to 100 Girls.
Queensland ...	... 105·30	Victoria ...	... 104·64
New Zealand ...	... 105·03	New South Wales ...	... 104·59
Tasmania ...	... 104·99		
Western Australia ...	... 104·91	Mean ...	... 104·67
South Australia ...	... 104·75		

493. In England and Wales, during the ten years ended with 1879, 103·9 boys were born to 100 girls, and the Registrar-General of England mentions it as “a curious fact, which has as yet received no certain explanation,” that the proportion of male to female births is not only lower than in any other European country, but has been diminishing steadily. In support of which statement he publishes the following figures,* to which the figures for England from 1881 to 1883 have been added :—

Births of males and females in British and foreign countries.

PROPORTION OF MALE TO FEMALE BIRTHS IN CERTAIN COUNTRIES, 1870 TO 1879.

	Boys to 100 Girls.		Boys to 100 Girls.
Italy ...	... 107·1	Holland ...	... 106·1
Austria ...	... 106·8	Belgium ...	... 105·9
France ...	... 106·4	Scotland ...	... 105·7
Switzerland ...	... 106·3	Ireland ...	... 105·6
German Empire ...	... 106·2	England and Wales ...	... 103·9

PROPORTION OF MALE TO FEMALE BIRTHS IN ENGLAND AND WALES AT DIFFERENT PERIODS.

	Boys to 100 Girls.		Boys to 100 Girls.
1856 to 1860...	... 104·6	1876 to 1880...	... 103·8
1861 to 1865...	... 104·3	1881 ...	... 103·9
1866 to 1870...	... 104·1	1882 ...	... 103·8
1871 to 1875...	... 103·9	1883 ...	... 103·5

494. It will be observed that the proportion of male to female births in all the Australasian colonies is higher than the proportion in England and Wales, but below that in any of the other countries named.

Australasian and other countries compared.

495. In 1885, 237 twin births and 1 triple birth were registered, as against 239 twin births and 4 triple births in 1884. In the ten

Twins and triplets.

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

years ended with 1880, 2,426 cases of twins and 21 cases of triplets were recorded, the total number of births in the same period having been 268,710. There were thus 266,242 confinements in the ten years, and it follows that 1 mother in every 111 gave birth to twins, and 1 mother in every 12,796 was delivered of three children at a birth.

496. If the following figures, taken from Mr. Mulhall's work,* are to be relied upon, a comparatively small number of double and triple births occur in Victoria, she being, in the latter respect, below all the countries for which information is given; and, in the former, below all except Spain:—

TWINS AND TRIPLETS IN VARIOUS COUNTRIES.

Countries.	Per 1,000 Births.		Countries.	Per 1,000 Births.	
	Number of Twins.	Number of Triplets.		Number of Twins.	Number of Triplets.
Victoria ..	9·03	·08	Italy ...	11·8	·14
England ...	11·2	...	Switzerland ...	12·0	...
Scotland ...	11·7	...	Spain ...	8·4	...
Ireland ...	17·6	...	Belgium ...	9·1	·10
France ...	10·1	·12	Holland ...	12·8	...
Germany ...	12·9	·13	Denmark ...	13·7	·24
Russia ...	12·1	...	Sweden ...	13·6	·18
Austria ...	13·4	·18	Norway ...	11·8	·15
			Iceland ...	14·2	·33

497. According to the figures, the highest proportion of double births occurs in Ireland, and the highest proportion of triple births in Iceland.

498. The illegitimate children born in 1885 numbered 1,308, or 1 in every 23 births registered. Those in 1884 were also set down as 1 in 23; those in 1883 and 1882 as 1 in 21; in 1881 as 1 in 20; in 1880 and 1879 as 1 in 21; in 1878 as 1 in 24; in 1877 as 1 in 26; in 1876 as 1 in 27; and in 1875 as 1 in 34. In the ten years, 1871-80, out of 268,710 infants born, 9,868 were traced as having been born out of wedlock, which numbers furnish a proportion of 1 illegitimate child to every 27 births.†

499. It was shown in a previous table‡ that the legitimate births registered in each of the last two census years were in the proportion of 302 $\frac{2}{3}$ to every 1,000 married women living at the reproductive period of life. It follows, therefore, from the number of legitimate births

* *Dictionary of Statistics*, page 50.

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

‡ See table following paragraph 469 *ante*.

Twins and triplets in various countries.

Countries in which most twins and triplets occur.

Illegitimate births.

Women living in concubinage.

registered in 1885, that, approximately, 94,740 married women at the fruitful or child-bearing age were living in the colony during that year. Assuming that the illegitimate births bear the same proportion to unmarried women, it also follows, from the number of such births in 1885, that, exclusive of public prostitutes (who, as they rarely have children, are omitted from the computation), at least 4,320 single women at the fruitful or child-bearing ages were living in concubinage. If from the total number of women in the colony between the ages of 15 and 45—estimated to be 216,531—be deducted the approximate number of married women above referred to, viz., 94,740, the difference will give 121,791 as the number of unmarried women and widows at those ages. It therefore follows that 1 out of every 28 of these was living immorally.

500. 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 thirteen years:—

Illegitimacy and concubinage, 1873 to 1885.

ILLEGITIMACY AND CONCUBINAGE, 1873 TO 1885.

Year.	Illegitimate Births.		Women Living in Concubinage (exclusive of Public Prostitutes).	
	Total Number.	Percentage of Total Births.	Estimated Total Number.	Number per 100 Single Women between 15 and 45 Years of Age Living in Victoria.
1873	893	3·18	2,951	4·54
1874	984	3·67	3,251	4·41
1875	779	2·92	2,573	3·36
1876	975	3·64	3,221	4·02
1877	1,010	3·88	3,337	3·85
1878	1,103	4·15	3,644	4·20
1879	1,304	4·86	4,308	4·78
1880	1,254	4·80	4,143	4·39
1881	1,382	5·09	4,551	4·49
1882	1,271	4·75	4,200	3·91
1883	1,292	4·69	4,268	3·72
1884	1,238	4·29	4,090	3·46
1885	1,308	4·36	4,320	3·54
Means	1,138	4·15	3,760	4·13

501. All the Australasian colonies, except South Australia and Western Australia, now publish statistics of illegitimacy. According to these, which possibly may not in every case represent the whole truth,* illegitimacy is most rife in Tasmania, next so in New South

Illegitimacy in Australasian colonies.

* See footnote to paragraph 498 ante.

Wales, next in Victoria, next in Queensland, and least of all in New Zealand. In most of the colonies, so far as figures are available, illegitimacy appears to have a tendency to increase. The following table shows the percentage of illegitimate to the total births, in the five colonies which publish the information, during a series of years :—

ILLEGITIMACY IN AUSTRALASIAN COLONIES, 1872 TO 1885.

Year.	Illegitimate Births to every 100 Children Born.				
	Victoria.	New South Wales.	Queensland.	Tasmania.	New Zealand.
1872	2·99	4·03	2·92	...	...
1873	3·18	4·15	2·71	...	1·42
1874	3·67	4·22	2·76	...	1·30
1875	2·92	4·20	3·43	...	1·36
1876	3·64	4·08	3·21	...	2·23
1877	3·88	4·14	3·64	...	2·08
1878	4·15	4·03	3·68	...	2·41
1879	4·86	4·51	4·31	...	2·30
1880	4·80	4·35	4·31	...	2·43
1881	5·09	4·26	4·20	...	2·85
1882	4·75	4·24	4·40	4·40	2·87
1883	4·69	4·24	3·66	3·96	2·78
1884	4·29	4·40	4·05	4·46	2·96
1885	4·36	...	...	4·55	3·20
Means	4·09	4·22	3·64	4·34	2·32

Concubinage
in Austral-
asian
colonies.

502. A calculation, based upon the illegitimate births which occurred in the census year, shows that of the four colonies which then published statistics of these occurrences concubinage was most rife in Queensland, next in New South Wales, and next in Victoria and New Zealand, there being only a slight difference between the two last-named colonies. In the following table the colony in which the largest proportion of concubinage existed is placed first, and that in which the smallest proportion existed last :—

CONCUBINAGE IN AUSTRALASIAN COLONIES, 1881.

Colony.	Single Women between 15 and 45 Years of Age.	Illegitimate Births, 1881.	Single Women living in Concubinage (exclusive of Public Prostitutes).	
			Total Number.	Number per 100 Single Women between 15 and 45.
1. Queensland ...	15,441	345	1,059	6·86
2. New South Wales	71,085	1,263	3,665	5·16
3. Victoria ...	101,451	1,382	4,551	4·49
4. New Zealand ...	38,659	534	1,686	4·36

503. The figures in the last column show the proportions which the single women leading a sexually immoral life, without being public prostitutes, bore to the whole number of single women at the fruitful period of life in each of the four colonies. These proportions will, perhaps, be better understood if expressed in another manner as follow :—

In Queensland	1 single woman in 13 was living immorally.		
In New South Wales	" "	19	" "
In Victoria	" "	22	" "
In New Zealand	" "	23	" "

Proportion of concubinage in each colony.

504. 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, it seems to be 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 United Kingdom.

ILLEGITIMACY IN ENGLAND, SCOTLAND, AND IRELAND, 1871 TO 1882.

Year.	Illegitimate Births to every 100 Children Born.		
	England and Wales.	Scotland.	Ireland.
1871	5·6	9·5	2·7
1872	5·4	9·1	2·5
1873	5·2	9·0	2·4
1874	5·0	8·7	2·3
1875	4·8	8·6	2·3
1876	4·7	8·6	2·3
1877	4·7	8·4	2·4
1878	4·7	8·4	2·3
1879	4·8	8·5	2·5
1880	4·8	8·4	2·5
1881	4·9	8·3	2·5
1882	4·9	8·1	2·7
Means	5·0	8·6	2·4

505. Statistics of illegitimacy in France for the years 1873 to 1881 were quoted by M. Toussaint Loua, Director of the Bureau of General Statistics of France, in a paper read by him before the Statistical Society of Paris on the 21st March, 1883; and M. Loua has since given the society the proportions in the three following years.* By M. Loua's figures, which are subjoined, it appears that illegitimacy in France is not so rife as in Scotland, but is much more so than in England, Ireland, or any of the Australasian colonies:—

Illegitimacy in France.

* See *Journal de la Société de Statistique de Paris*, vingt-quatrième année, page 160: Berger-Levrault. Paris, 1883.

ILLEGITIMACY IN FRANCE, 1873 TO 1884.

Year.	Illegitimate Births to every 100 Children Born.	Year.	Illegitimate Births to every 100 Children Born.
1873 ...	7.46	1881 ...	7.48
1874 ...	7.26	1882 ...	7.62
1875 ...	7.03	1883 ...	7.90
1876 ...	6.96	1884 ...	8.08
1877 ...	7.08		
1878 ...	7.25	Mean ...	7.38
1879 ...	7.07		
1880 ...	7.41		

Increase of Illegitimacy in France.

506. In a paper read by the same author before the Statistical Society in October, 1885,* M. Loua points out that, whilst the legitimate births in France are diminishing in numbers year by year, the illegitimate births are increasing, and in proof of this he gives the following figures:—

LEGITIMATE AND ILLEGITIMATE BIRTHS IN FRANCE, 1881 TO 1884.

	Legitimate Births.	Illegitimate Births.
1881 ...	866,978	70,079
1882 ...	864,261	71,303
1883 ...	863,731	74,213
1884 ...	862,004	75,754

Illegitimacy in various countries.

507. The following figures, taken—except as regards the Australasian colonies, England, Scotland, Ireland, and France—from Mr. Mulhall's book,† show certain countries arranged in order according to the extent of illegitimacy prevailing in each, the proportion of illegitimate births being also shown:—

ILLEGITIMACY IN VARIOUS COUNTRIES.

Country.	Illegitimate Births to every 100 Children Born.	Country.	Illegitimate Births to every 100 Children Born.
Austria ...	12.9	England ...	5.0
Denmark ...	11.2	Switzerland ...	4.6
Sweden ...	10.2	New South Wales ...	4.2
Scotland ...	8.6	Victoria ...	4.0
Norway ...	8.5	Queensland ...	3.6
Germany ...	8.4	Holland ...	3.5
France ...	7.4	Russia ...	3.1
Belgium ...	7.0	New Zealand ...	2.8
Italy ...	6.8	Ireland ...	2.4
Portugal ...	5.6	Greece ...	1.6
Spain ...	5.5		

Position of Victoria in respect to illegitimacy.

508. According to the figures, more illegitimacy prevails in Austria and less in Greece than in any other countries. In Victoria, illegitimacy appears to be less prevalent than in fourteen and more so than in six of the countries.

* See same Journal, vingt-sixième année, page 404. Paris, 1885.

† Dictionary of Statistics, page 51.

509. 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 1885, in the metropolitan district about 1 birth in 15, in extra-metropolitan towns 1 birth in 25, but in country districts only 1 birth in 45, was registered as illegitimate. In the previous year the proportions were 1 in 15, 1 in 26, and 1 in 46 respectively.

Illegitimacy in town and country.

510. To ascertain the relative fruitfulness of women in different countries, it is necessary to compare the number of married women at the reproductive ages with the legitimate births. This can be done in the case of Victoria, New South Wales, Queensland, and New Zealand; but not in that of the other Australasian colonies, as in the returns of the latter no distinction was made at the time the census was taken between the infants born in and those born out of wedlock. By means of such a comparison in regard to the four colonies named, it would appear that the highest degree of fecundity exists in New South Wales, and the lowest in Victoria, this being probably owing to the fact that the married women are, on the average, younger in the former and older in the latter than in the other two colonies. The following table shows the number of married women under 45 years of age, the number of legitimate births in the census year, and the proportion of such births to such women in each of the four colonies:—

Fecundity of women in Australasian colonies.

PROPORTION OF BIRTHS TO MARRIED WOMEN IN AUSTRALASIAN COLONIES.*

Colony.	Married Women under 45 Years of Age.	Legitimate Births, 1881.	
		Total Number.	Number per 100 Married Women under 45.
1. New South Wales ...	80,473	27,730	34.46
2. Queensland ...	24,183	7,875	32.56
3. New Zealand ...	57,464	18,198	31.67
4. Victoria ...	84,831	25,763†	30.37†

511. Another method of determining the fecundity of women is to find the average number of children born to a marriage, which may be ascertained approximately by dividing the legitimate births in any year by the number of marriages in the preceding year. The following is the result of such a calculation for Victoria during the twelve years ended with 1885:—

Children to a marriage in Victoria

* The Government Statistician of Tasmania gives the proportion of births—including illegitimate births—to married women under 45 years in that colony in 1881 as 347 per 1,000, as compared with 326 in New Zealand and 309 per 1,000 in Victoria, during the same year.

† In consequence of the births here quoted being those for the calendar year, these figures differ slightly from those in table following paragraph 469 ante.

CHILDREN TO A MARRIAGE, 1874 TO 1885.

Year.	Legitimate Births.	Marriages in Year prior to that named in first Column.	Average Number of Children to a Marriage.
1874	25,816	4,974	5.19
1875	25,941	4,925	5.27
1876	25,794	4,985	5.17
1877	25,000	4,949	5.05
1878	25,478	5,103	4.99
1879	25,535	5,092	5.01
1880	24,894	4,986	4.99
1881	25,763	5,286	4.87
1882	25,476	5,896	4.32
1883	26,249	6,309	4.16
1884	27,612	6,771	4.08
1885	28,667	7,218	3.97
Sums and Mean ...	312,225	66,494	4.70

Decrease in children to a marriage in Victoria.

512. The figures show a steady diminution in the proportion of children born, amounting in the twelve years to more than one child per marriage. It is evident that if the births increased with the marriages as they should do, the proportions would remain steady; but this is shown not to be the case. There are, however, many matters affecting the birth rates of infants respecting which it is not possible to obtain precise information. The result is shown in the last column of the table, but the causes by which such a result was produced can only be guessed at.

Children to a marriage in Australasian colonies.

513. According to this mode of reckoning, it would appear that there were, upon the average, fewer children to a marriage in Victoria than in New Zealand, New South Wales, Queensland, or Tasmania. For the other two colonies the information cannot be given, as their returns make no distinction between illegitimate children and children born in wedlock :—

CHILDREN TO A MARRIAGE IN AUSTRALASIAN COLONIES, 1880 TO 1884.

Year.	Average Number of Children to a Marriage.				
	Victoria.	New South Wales.	Queensland.	Tasmania.	New Zealand.
1880	4.99	5.00	4.89	...	5.54
1881	4.87	5.48	5.09	...	5.72
1882	4.32	4.53	4.78	4.51	5.63
1883	4.16	4.31	4.68	4.22	5.18
1884	4.08	4.38	4.28	3.91	5.33
Means	4.48	4.74	4.74	4.21	5.48

514. It seems, by the figures, that in each of the five colonies there is a tendency for the average number of children to a marriage to decrease in numbers. The figures for the last year are in all cases smaller than those in the first, and are also smaller than those expressing the mean of the whole period.

Decrease in children to a marriage in each colony.

515. A statement of the average number of children born to a marriage in certain countries is given by Mr. Mulhall* for the period 1871-80, and his figures, together with the means for the Australasian colonies as just stated, are as follow, the country having the highest average being placed first in order, and the remainder in succession:—

Children to a marriage in various countries.

CHILDREN TO A MARRIAGE IN VARIOUS COUNTRIES.

					Births to each Marriage.
New Zealand	...	...	...	...	5.48
Ireland	...	...	...	...	5.46
New South Wales	...	...	...	...	4.74
Queensland	...	...	...	...	4.74
Victoria	...	...	...	...	4.48
Scotland	...	...	...	...	4.43
Holland	...	...	...	...	4.34
Tasmania	...	...	...	...	4.21
Belgium	...	...	...	...	4.21
England	...	...	...	...	4.16
Sweden	...	...	...	...	4.01
Denmark	...	...	...	...	3.55
France	...	...	...	...	2.98

516. New Zealand is at the head of the list, and Ireland follows immediately after, but it may be questioned whether the high proportion in the latter does not in some degree result from the fact that the registration of marriages there† is more defective than that of births. It will be observed that Ireland is the only country out of Australasia which stands above Victoria. It may be mentioned that Mr. Mulhall gives figures to show that the number of children to a marriage is increasing in England, Ireland, Holland, and Belgium, but decreasing in the other countries named.

Position of Victoria in reference to births to a marriage.

517. According to the registrations, births in Victoria are always most numerous in the winter quarter, and next so in the autumn quarter. The proportion of births in the spring and summer quarters varies in different years, the advantage being generally slightly in favour of the former. The following are the numbers and percentage for 1885, and the percentage for a previous decennial period:—

Births in each quarter.

* Dictionary of Statistics, page 50.

† See footnote (§) to table following paragraph 413 ante.

BIRTHS IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—		Year 1885.		Percentage in Ten Years: 1871 to 1880.
			Number of Births.	Percentage.	
Summer ...	March ...	...	7,098	23·68	23·74
Autumn ...	June ...	...	7,629	25·45	25·10
Winter ...	September ...	...	7,971	26·59	27·15
Spring ...	December ...	...	7,277	24·28	24·01
	Year ...		29,975	100·00	100·00

Births in each quarter in various countries.

518. In the following table the proportion of births occurring in each quarter in Victoria are compared with that proportion in the opposite, and consequently (so far as seasons are concerned) corresponding quarters in certain countries of the northern hemisphere. The figures for such countries have been taken from Mr. Mulhall's work* :—

PERCENTAGE OF BIRTHS IN EACH QUARTER IN VARIOUS COUNTRIES.

Countries.	Quarter ending on the last day of—			
	March in Victoria, September in other Countries.	June in Victoria, December in other Countries.	September in Victoria, March in other Countries.	December in Victoria, June in other Countries.
Victoria ...	Per Cent. 23·7	Per Cent. 25·1	Per Cent. 27·2	Per Cent. 24·0
England ...	24·0	23·8	26·2	26·0
France ...	24·0	24·1	27·0	24·9
Germany ...	25·0	24·9	25·9	24·2
Sweden ...	23·7	25·7	26·8	23·8
Italy ...	23·7	24·7	27·5	24·1
Russia ...	24·7	23·7	25·6	26·0

Quarters in which most and fewest births occur.

519. It appears that in most countries the largest number of births take place in what may be called the winter quarter (ending September in Victoria, March in other countries), the exception being Russia, in which most births occur in the quarter ending June. Fewest births occur in what may be called the summer quarter (ending March in Victoria, September in other countries), except in Germany, where the proportion in the quarter ending June is the smallest, and in England and Russia, where it is the smallest in the quarter ending December.

Deaths, 1885. 520. The deaths registered in 1885 numbered 14,364, as against 13,505 in 1884. The increase in the year under notice was thus 859.

* Dictionary of Statistics, page 49.

521. Deaths were more numerous in 1885 than in any previous year except 1875. The high mortality in the last-named year, in which 15,287 deaths were recorded, was due to the prevalence of measles and scarlatina in an epidemic form.* Deaths, 1885 and former years.

522. The births in 1885 exceeded the deaths by 15,611, or 108 per cent., as against 114 per cent. in 1884. In the twenty years ended with 1885 the proportion averaged 121 per cent. The following were the births and deaths in each of those twenty years, and the excess of the former over the latter :— Excess of births over deaths.

EXCESS OF BIRTHS OVER DEATHS, 1866 TO 1885.

Year.	Births.	Deaths.	Excess of Births over Deaths.	
			Numerical.	Centesimal.
1866	25,010	12,286	12,724	104
1867	25,608	11,733	13,875	118
1868	27,243	10,067	17,176	171
1869	26,040	10,630	15,410	145
1870	27,151	10,420	16,731	161
1871	27,382	9,918	17,464	176
1872	27,361	10,831	16,530	153
1873	28,100	11,501	16,599	144
1874	26,800	12,222	14,578	119
1875	26,720	15,287	11,433	75
1876	26,769	13,561	13,208	97
1877	26,010	12,776	13,234	104
1878	26,581	12,702	13,879	109
1879	26,839	12,120	14,719	121
1880	26,148	11,652	14,496	124
1881	27,145	12,302	14,843	121
1882	26,747	13,634	13,113	96
1883	27,541	13,006	14,535	112
1884	28,850	13,505	15,345	114
1885	29,975	14,364	15,611	108
Total in 20 years	540,020	244,517	295,503	121

523. It will be noticed that the births more than doubled the deaths in all the years except 1882, 1876, and 1875. Years in which births doubled deaths.

524. Of the Australasian colonies, New Zealand is the one in which the births have always 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 favoured by the circumstance that an abnormally large proportion of the population, resulting from Excess of births over deaths in Australasian colonies.

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

the number of immigrants introduced at the expense of the State,* consists of persons at the reproductive period of life, which, being also the strongest, is that at which fewest deaths occur. The low death rate is no doubt also promoted by the salubrity of the climate of New Zealand, but still more so by the circumstance of the population being spread over the country or dispersed throughout a number of small towns, instead of being to a great extent crowded into a few large cities, as is too much the case in the other colonies. The position of Victoria in regard to the proportionate increase of births over deaths is about the same as that of Queensland, above that of Tasmania, but below that of the other colonies. The following table shows the percentage of excess of births over deaths in each of the Australasian colonies during the respective years 1875 to 1884, 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,
1875 TO 1884.**

Colony.	Excess per Cent. of Births over Deaths.										Mean of 10 Yrs.
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	
New Zealand ...	153	230	260	283	224	256	241	233	217	246	235
South Australia ...	84	132	167	148	177	162	167	147	152	147	148
New South Wales ...	109	108	142	135	164	151	151	132	155	139	138
Western Australia...	61	140	111	121	138	144	144	153	89	55	116
Victoria ...	75	97	104	109	121	124	121	96	112	114	107
Queensland ...	63	99	113	75	145	172	148	99	96	56	107
Tasmania ...	49	82	58	106	111	104	126	112	101	130	98

Excess of
births over
deaths in
Australasian
capitals.

525. In 1885 (exclusive of the capital of Western Australia, respecting which no returns are issued) the percentage of excess of births over deaths in Melbourne was below that in any of the Australasian capital cities except Hobart, as will be seen by the following figures:—

**EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN CAPITAL
CITIES, 1885.**

	Per Cent.
Wellington ...	165·24
Adelaide ...	134·30
Brisbane ...	94·34
Sydney...	85·77
Melbourne ...	73·36
Hobart...	48·99

* In the eleven years 1873 to 1883, 102,612 State-assisted immigrants arrived in New Zealand. This number is equivalent to nearly one-fifth of the total population on the 31st December, 1883 (540,877).

526. The following table shows the percentage of excess of births over deaths in certain European countries during each of the five years ended with 1883. The countries are arranged in order according to the means of the quinquennial period shown in the last column, the country with the highest mean being placed first, and the rest in succession :—

EXCESS OF BIRTHS OVER DEATHS IN EUROPEAN COUNTRIES.

Countries.	Excess per Cent. of Births over Deaths.					
	1879.	1880.	1881.	1882.	1883.	Mean of 5 Years.
Norway	113	93	80	68	81	87
England and Wales	67	66	80	72	70	71
Scotland	71	64	75	73	63	69
Sweden	80	62	64	69	67	68
Denmark	62	56	76	68	72	67
The Netherlands	63	51	63	70	57	61
Prussia	58	48	48	48	45	49
German Empire... ..	52	45	45	45	41	46
Belgium	42	39	50	54	47	46
Switzerland	35	35	33	32	40	35
Ireland	29	24	40	39	23	31
Austria	35	30	27	26	27	29
Italy	27	10	38	35	35	29
Hungary	27	13	23	22	39	25
France	12	7	11	12	12	11

Excess of births over deaths in European countries.

527. It will be observed that deaths bear a much larger proportion to births in all the countries named than they do in any of the Australasian colonies, part of which difference is probably due to the Australian climate being more healthy and the circumstances of the colonies more favorable to longevity, and part to the fact that the countries named contain a larger proportion than the colonies of the young and the very old. Norway is the only one of those countries in which the births doubled the deaths in any year of the period, and in Norway that circumstance occurred in only one year (1879). On the other hand, in the Australasian colonies, it is the exception for the births not to double the deaths, and in one of them (New Zealand) it is the exception for the births not to be three times as numerous as the deaths.*

Excess of births over deaths in Australia and elsewhere.

528. In Victoria, deaths of males in 1885 numbered 8,300, and deaths of females, 6,064. These numbers furnish a proportion of 73 females to every 100 males, as against a proportion of 76 in 1884, and an

Deaths of males and females.

* See paragraph 524 ante.

average also of 75 in the ten years 1871-80. Females in the total population were in the proportion of 88 to every 100 males during the last two years, and of about 87 during the decennium; therefore more males and fewer females died than their relative numbers in the population might have given reason to expect.

Annual
death rate.

529. The following table shows the death rate of males and females, and of both sexes, during each of the last twenty-five years. It will be noticed that the death rate in all the years, except 1861 and 1862, bore more hardly upon males than upon females:—

ANNUAL DEATH RATE, 1861 TO 1885.

Year.	Estimated Mean Population.		Number of Deaths.		Deaths per 1,000 of the Mean Population.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.*
1861 ...	324,988	214,836	6,124	4,398	18·84	20·47	19·49
1862 ...	322,916	225,164	5,900	4,180	18·27	18·56	18·39
1863 ...	325,680	237,280	5,646	3,856	17·34	16·25	16·88
1864 ...	335,272	251,178	5,202	3,685	15·51	14·67	15·15
1865 ...	347,083	264,135	6,158	4,303	17·74	16·29	17·11
1866 ...	353,941	275,097	7,016	5,270	19·82	19·16	19·53
1867 ...	359,642	284,634	6,613	5,120	18·39	17·99	18·21
1868 ...	367,752	295,340	5,865	4,202	15·95	14·23	15·18
1869 ...	379,396	307,806	6,221	4,409	16·40	14·32	15·47
1870 ...	392,159	321,036	6,114	4,306	15·59	13·41	14·61
1871 ...	403,319	333,686	5,845	4,073	14·49	12·21	13·46
1872 ...	409,081	344,117	6,308	4,523	15·42	13·14	14·38
1873 ...	412,597	352,914	6,565	4,936	15·91	13·99	15·02
1874 ...	416,725	360,931	6,994	5,228	16·78	14·48	15·72
1875 ...	419,779	367,558	8,563	6,724	20·40	18·29	19·42
1876 ...	422,931	373,627	7,716	5,845	18·24	15·64	17·02
1877 ...	427,727	380,878	7,345	5,431	17·17	14·26	15·80
1878 ...	433,153	388,313	7,179	5,523	16·57	14·22	15·46
1879 ...	438,563	395,467	7,033	5,087	16·04	12·86	14·53
1880 ...	446,445	403,898	6,610	5,042	14·81	12·48	13·70
1881 ...	456,107	412,835	7,024	5,278	15·40	12·78	14·16
1882 ...	468,468	422,062	7,900	5,734	16·86	13·59	15·31
1883 ...	483,960	433,350	7,410	5,596	15·31	12·91	14·18
1884 ...	501,640	444,460	7,675	5,830	15·30	13·12	14·27
1885 ...	518,994	456,046	8,300	6,064	15·99	13·30	14·73
Average of twenty-five years ...					16·65	14·58	15·71

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

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

530. It has been held by high authority* that in countries in which the climate is healthy, hygiene properly attended to, and the population in a normal condition as regards age, the ordinary mortality incident to human nature would probably cause the death rate to be in the proportion of about 17 per 1,000 persons living. It should, however, be borne in mind that death rates based merely upon the total population, in common with birth and marriage rates calculated upon a like basis, are not always fair tests of the state of a community. If the proportion of very young or old people is high, the death rate will be also high; but if, on the other hand, the number of persons at the middle ages is excessive, the death rate will be low. It will be remarked that the mortality exceeded 17 per 1,000 seven times in the twenty-five years named in the table, but over the whole period it has averaged below 16 per 1,000. In the last nine years it has never been so high as 16 per 1,000, whilst in five of those years it was but little above, and in one even below, 14 per 1,000.

Normal
death rate.

531. In 1871 the death rate of both males and females was the lowest recorded during the whole period of twenty-five years, after which and the death rate in 1880 the next lowest death rate was in 1881; it has thus happened that the last two census years, viz., 1871 and 1881, were years of exceptionally low mortality. Such a circumstance occurring at two successive census periods is apt to mislead those who attempt, without due allowance, to base conclusions upon the relation which exists between the number of deaths and the population of the colony, as derived from the results of the census years alone.

Low mor-
tality in
census
years 1871
and 1881.

532. The death rate in 1885 of both males and females, although somewhat higher than in the two previous years, was below the average. Taking the mean of the two sexes, the mortality was lower than in 1882, and was also lower than in any of the years prior to 1879, except 1872, 1871, and 1870.

Death rate,
1885 and
previous
years.

533. The proportion which the deaths that occurred in each Australasian colony bore to the total population of that colony during each of the twenty years from 1865 to 1884 will be found in the following table:—

Death rates
in Austral-
asian colo-
nies.

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

DEATH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1884.*

Year.	Number of Deaths per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865	16·97	16·41	21·42	14·30	...	13·40	15·13
1866	19·37	17·47	25·67	17·20	...	13·79	12·86
1867	18·06	19·64	17·80	17·48	...	14·48	12·78
1868	15·00	15·83	17·36	14·41	...	14·70	11·94
1869	15·47	14·05	16·20	12·37	...	13·20	11·73
1870	14·61	13·27	14·59	13·94	...	13·88	11·13
1871	13·46	12·54	14·83	12·87	...	13·38	10·13
1872	14·38	14·11	14·97	15·33	14·02	13·79	11·68
1873	15·02	13·84	16·06	13·48	16·24	14·52	12·67
1874	15·72	15·12	17·98	17·05	18·74	16·21	13·05
1875	19·42	18·09	23·80	19·45	17·88	20·00	15·92
1876	17·02	18·11	18·82	16·28	14·18	16·54	12·66
1877	15·80	15·28	17·29	13·99	15·70	19·17	11·47
1878	15·46	15·88	20·41	15·44	14·07	15·66	11·01
1879	14·53	14·29	14·97	14·09	14·46	15·18	12·46
1880	13·70	15·57	13·59	14·85	13·24	16·12	11·46
1881	14·16	15·12	15·02	14·49	13·80	14·77	11·13
1882	15·31	16·03	17·99	15·15	14·16	15·79	11·19
1883	14·18	14·52	18·82	14·83	17·93	17·06	11·45
1884	14·27	15·88	22·97	15·52	21·87	15·50	10·39
Means	15·60	15·55	18·03	15·13	15·85	15·36	12·12

Fluctuations in the death rate coincident in different colonies.

534. Considerable fluctuations in the death rates have occurred from year to year, and the fact of such fluctuations being simultaneous indicates some connexion between the different colonies. Thus a high rate of mortality prevailed, more especially in the continental colonies, in 1866 and 1867 (in Queensland extending also to 1868), which was caused by the presence of an epidemic of measles and scarlatina; Tasmania and New Zealand appear on this occasion to have almost entirely escaped, as their death rates were but little affected. Moreover, in 1875-6 a high death rate—caused by the same complaints—also occurred in all the colonies of the group. In like manner, low death rates prevailed in all the colonies about 1870 and 1871, extending in the case of some of them to 1872, also about 1880 and 1881. It is a noteworthy circumstance that the interval between the two maxima, as well as between the two minima, embraces a period of about ten years. From the experience of the last two or three years, moreover, there is indication of another approaching period of high mortality, the rates in two of the colonies, viz., Queensland and Western Australia, having already (*i.e.* in 1884) attained a higher point than in any year since the epidemic period of 1875-6—ten years ago.

Normal death rate in colonies.

535. In the twenty years over which the observations extend, the normal death rate of 17 per 1,000 persons living was reached in

* For the number of deaths in the various colonies during the last twelve of the years named, see General Summary of Australasian Statistics (third folding sheet) *ante*.

Queensland twelve times, in Victoria, New South Wales, and South Australia four times, in Tasmania three times, and in New Zealand not at all. In the last thirteen of those years it was reached four times in Western Australia. Queensland is the only colony in which, over a series of years, the death rate has exceeded 17 per 1,000.

536. According to the average of a series of years, the death rate of Queensland was much higher, and that of New Zealand much lower, than that of any of the other colonies. But with the exception of these colonies, the average death rates differ but slightly from one another; the rate in Victoria being a little lower than in Western Australia, but somewhat higher than in New South Wales, and higher still than in Tasmania and South Australia. In 1883 and 1884, however, the rate of Victoria was much lower than that of any of the other colonies except New Zealand. The following is the order of the colonies in reference to their respective death rates; the colony with the highest rate being placed first, and that with the lowest last:—

Order of colonies in respect to death rates.

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO DEATH RATES.

Order in 1884.	Order over a Series of Years.
1. Queensland.	1. Queensland.
2. Western Australia.	2. Western Australia.
3. New South Wales.	3. Victoria.
4. South Australia.	4. New South Wales.
5. Tasmania.	5. Tasmania.
6. Victoria.	6. South Australia.
7. New Zealand.	7. New Zealand.

537. The death rate of the colonies situated upon the continent of Australia taken in combination, and the death rate of those colonies with the addition of Tasmania and New Zealand, are shown in the following table for the twelve years ended with 1884:—

Death rate in Australia and Australasia.

DEATH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1884.

Year.	Number of Deaths per 1,000 of Mean Population.	
	Continent of Australia.	Australia with Tasmania and New Zealand.
1873	14·43	14·20
1874	15·73	15·36
1875	19·08	18·63
1876	17·12	16·37
1877	15·23	14·77
1878	15·72	14·94
1879	14·06	13·84
1880	14·47	14·01
1881	14·62	14·01
1882	15·81	14·99
1883	14·96	14·43
1884	16·16	15·12
Means ...	15·62	15·06

Normal
death rate
in Australia
and Aus-
tralia.

538. It will be noticed that in 1875 and 1876 the mortality on the Australian continent exceeded 17 per 1,000, but in no other years; also that it exceeded that rate upon the continent combined with the colonies of Tasmania and New Zealand only in 1875. It will further be noticed that since 1878 the rates have been usually below 15 per 1,000, but in 1884 they were above the average, and attained on the continent—for the first time since 1876—a rate exceeding 16 per 1,000.

Death rates
in certain
British
possessions.

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

DEATH RATES IN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Deaths per 1,000 of the Population.
Malta	1883	25·4
Ceylon	1867-76	21·6
Straits Settlements	1881-4	27·9
Hong Kong	1879-81	28·0
Mauritius	1882-3	35·1
Seychelles	1875-7	22·4
St. Helena	1871-5	13·2
Gambia	1882-3	51·5
Nova Scotia	1871-5	12·1
Bermudas	1875-84	24·3
British Guiana	1871-83	33·7
West Indies—		
Bahamas	1874-5	22·6
Jamaica	1883-4	22·6
St. Lucia	1869-84	25·3
St. Vincent	1870-9	28·4
Barbadoes	1872-8	23·8
Grenada	1883-4	21·0*
Tobago	1882-3	20·5
Antigua	1883-4	39·5
Montserrat	1883-4	22·5
Dominica	1882-3	17·3
Trinidad	1883-4	28·1*

Death rates
in European
countries.

540. In all the European countries of which the information is at hand, the mean annual death rates are much higher than in any of the Australasian colonies except Queensland, and the mean death rate in that colony is lower than in any of the countries named except Norway and Sweden. Moreover, in all with the exception of Norway, the mean annual death rate is above 17 per 1,000, and, with the same exception,

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

the only country in which the annual death rate during the five years ended with 1883 ever fell as low as 17 per 1,000 was Sweden, and that only in one year; whilst in Hungary, on the other hand, the average death rate per 1,000 amounts to more than twice that proportion. In the following table, the countries are arranged in the order of their mean death rates, as shown in the last column:—

DEATH RATES IN EUROPEAN COUNTRIES, 1879 to 1883.

Countries.	Number of Deaths per 1,000 of Mean Population.					
	1879.	1880.	1881.	1882.	1883.	Mean of 5 Years.
Hungary	36.4	38.6	35.6	36.6	32.6	36.0
Austria	29.9	29.7	30.6	30.8	30.1	30.2
Italy	29.9	30.5	27.6	27.5	27.5	28.6
Spain ... ..	...	...	...	...	...	25.8*
German Empire	25.6	26.0	25.4	25.7	25.9	25.7
Prussia	24.8	25.4	24.9	25.2	25.3	25.1
France	22.5	22.8	22.0	22.2	22.2	22.3
The Netherlands	22.5	23.5	21.5	20.7	21.8	22.0
Switzerland	22.6	21.9	22.4	21.9	20.3	21.8
Belgium	21.9	22.3	20.9	20.2	20.8	21.2
Scotland	20.2	20.7	19.3	19.3	20.1	19.9
England and Wales	20.7	20.5	18.9	19.6	19.5	19.8
Denmark	19.8	20.4	18.3	19.5	18.4	19.3
Ireland	19.6	19.3	17.5	17.4	19.2	18.6
Sweden	16.9	18.1	17.7	17.4	17.3	17.5
Norway	15.0	15.9	16.8	18.4	17.1	16.6

541. According to the reports of the Registrars-General of England and Scotland, the death rate of the latter country approximates very closely to that of the former, but in Ireland it is considerably lower than in the other two countries.† The figures for each of the thirteen years ended with 1883 were as follow:—

Death rate in United Kingdom.

DEATH RATE IN THE UNITED KINGDOM, 1871 TO 1883.

		Deaths per 1,000 of the Population.			Deaths per 1,000 of the Population.
1871	...	22.6	1879	...	20.5
1872	...	20.9	1880	...	20.4
1873	...	20.8	1881	...	18.7
1874	...	21.6	1882	...	19.2
1875	...	22.2	1883	...	19.5
1876	...	20.5			
1877	...	20.0	Mean	...	20.6
1878	...	21.2			

* Mean of years 1876 and 1878.

† Formerly the registrations in Ireland were admitted to be defective; but the Registrar-General of that country states that in recent years much improvement has taken place—especially since the passing of certain Acts of Parliament in the years 1878–80; and he has reason to believe that, at the present time, but few deaths escape registration.

Death rates
in town and
country,
1885.

542. In every country the death rate is higher in towns than it is in the extra-urban districts. This circumstance, although no doubt partly attributable to the superior healthfulness and immunity from contagion prevailing in the latter, is also to a great extent due to the fact that hospitals and charitable institutions, which are frequented by patients from the country as well as by town residents, are generally situated in the towns; and further, that outside of charitable institutions many persons die who have come from the country on the approach of serious illness for the sake of the superior nursing and medical attendance to be obtained in town. In 1885, the death rate was higher in Melbourne and suburbs than in the country towns, but in both it was much more than twice as high as in the country districts. The following are the figures for that year:—

DEATHS IN URBAN AND COUNTRY DISTRICTS, 1885.

Districts.	Estimated Mean Population.	Deaths, 1885.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs (Greater Melbourne)	345,380	6,960	20·15
Extra-metropolitan Towns	191,020	3,606	18·88
Country districts ...	438,640	3,798	8·66
Total ...	975,040	14,364	14·73

Death rate
in town and
country,
1873 to 1885.

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

DEATH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1885.

Years.	Number of Deaths per 1,000 of the Estimated Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1873 ...	19·86	18·50	9·65	15·02
1874 ...	21·27	20·47	9·09	15·71
1875 ...	25·82	26·03	11·24	19·42
1876 ...	21·84	23·00	10·45	17·02
1877 ...	21·18	20·07	9·86	15·80
1878 ...	20·12	20·21	9·83	15·46
1879 ...	19·23	18·65	9·17	14·53
1880 ...	18·70	17·65	8·13	13·70
1881 ...	19·32	19·44	7·90	14·16
1882 ...	21·02	20·24	8·93	15·31
1883 ...	19·46	18·81	8·21	14·18
1884 ...	20·54	18·74	7·64	14·27
1885 ...	20·15	18·88	8·66	14·73

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

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

Normal death rate in town and country.

545. In England and Wales, during the ten years 1872-81, the death rate in urban districts was 22·7 per 1,000, and in country districts, 18·7 per 1,000; the difference between these rates being not nearly so great as in similar divisions of Victoria.*

Death rates in town and country districts of England.

546. The following table shows the mean population, the number of deaths, and the proportion of the latter to the former, in 1885, also the number of deaths to every 1,000 persons living during the period of ten years commencing with 1871 and ending with 1880, in each of the different municipalities and other sub-districts forming the component parts of the district of Melbourne and suburbs (Greater Melbourne). In order to render the rates of the various districts comparable as far as possible, the deaths in hospitals and similar institutions have been eliminated from the districts where they occurred, and are shown separately near the end of the table:—

Death rates in Melbourne and suburbs.

DEATHS IN GREATER MELBOURNE.

Sub-districts.	Year 1885.			Ten Years: 1871 to 1880.
	Estimated Mean Population.	Deaths.		Annual Deaths per 1,000 of Population.
		Total Number.	Number per 1,000 of the Population.†	
Melbourne City	69,774	1,087	15·56	16·71
Hotham Town	18,883	360	19·07	17·34
Fitzroy City	27,829	455	16·35	18·63
Collingwood City	26,711	547	20·48	20·14
Richmond City	28,541	550	19·27	17·44
Brunswick Borough	8,396	142	16·91	14·62
Northcote Borough	2,500	24	9·60	...
Prahran City	28,637	498	17·39	16·89
South Melbourne City	33,500	575	17·16	16·53
Port Melbourne Borough	9,675	202	20·88	17·46
St. Kilda Borough	15,300	217	14·18	14·01
Brighton Borough	5,795	77	13·29	14·00

* See 45th Report of the Registrar-General of England, page xvi.

† In order to compare the death rate with density of population, see paragraph 101 ante.

DEATHS IN GREATER MELBOURNE—*continued.*

Sub-districts.	Year 1885.			Ten Years: 1871 to 1880.
	Estimated Mean Population.	Deaths.		Annual Deaths per 1,000 of Population.
		Total Number.	Number per 1,000 of the Population.*	
Essendon Borough	5,550	71	12·79	} 17·84
Flemington and Kensington Borough	4,864	60	12·34	
Hawthorn Borough	8,811	122	13·85	16·94
Kew Borough	5,040	67	13·29	11·84
Footscray Borough	9,016	160	17·75	16·75
Williamstown Town †	11,600	169	14·57	17·94
Remainder of district	19,860	287	14·45	11·85
<i>Hospitals, asylums, &c.</i> ‡	3,620	1,281	...	...
Shipping in Hobson's Bay and river	1,478 §	9	6·09	4·09
Total	345,380	6,960	20·15	20·39

Death rates
in 1885 and
series of
years.

547. It will be observed that in 1885 the death rate in eleven of the sub-districts, viz., Hotham Town; Collingwood, Richmond, Prahran, and South Melbourne Cities; Brunswick, Port Melbourne, St. Kilda, Kew, and Footscray Boroughs; and the "Remainder of district," was above the average of the decennial period, the excess being especially large in the case of Hotham, Richmond, Brunswick, and the "Remainder of district." On the other hand, in Fitzroy, Hawthorn, Essendon and Flemington, and Williamstown, the rate of mortality in 1885 was much below the average.

Places in
which death
rate was
highest and
lowest.

548. The only sub-district which, according to the average of ten years, had 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 neighbouring city of Fitzroy, the next in the shipping borough of Williamstown, and the next in the rural boroughs of Essendon and Flemington. In 1885 the highest death rates were in Port Melbourne and Collingwood—both with rates above 20 per 1,000—followed by Richmond, Hotham, Footscray, Prahran, and South Melbourne, in the order named; but the rates in Fitzroy, Essendon, Flemington, and Williamstown were exceedingly low. During the

* In order to compare the death rate with density of population, see paragraph 101 *ante*.

† Williamstown was a borough until the 31st March, 1886, when it was proclaimed a town.

‡ Includes the Melbourne, Alfred, Lying-in, Children's, and Homœopathic 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 and the Austin Hospital for Incurables, which are in "Remainder of district."

§ Census figures.

period of ten years, after the shipping, the lowest death rate was in Kew and the "Remainder of district"; the next in Brighton and St. Kilda; and the next in Brunswick. In 1885 the lowest rates were in Northcote,* Flemington, and Essendon; then in Kew, Brighton, Hawthorn, St. Kilda, the "Remainder of district," and Williamstown, in the order named.

549. The death rate of Greater Melbourne taken as a whole, in the calculation of which the deaths in charitable institutions are included, was a little over 20 per 1,000 persons living in 1885, or a fraction lower than the average during the period of ten years. During the last-named period the annual death rate was over 17 per 1,000 in 7 out of 17 sub-districts, viz., Collingwood, Fitzroy, Williamstown, Essendon and Flemington, Port Melbourne, Richmond, and Hotham; and during 1885 it was below 17 per 1,000 in 3 of those sub-districts, viz., Fitzroy, Williamstown, and Essendon and Flemington. It will be borne in mind that the deaths in hospitals, asylums, &c., are excluded from the returns of individual districts.

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

550. In 1885 the death rate in Melbourne was considerably lower than that in Hobart, Sydney, or Brisbane, but higher than that in Wellington or Adelaide, as is shown in the following table:—

Death rates in Australasian capitals.

DEATHS IN AUSTRALASIAN CAPITAL CITIES, 1885.

Capital Cities.†	Estimated Mean Population.	Deaths, 1885.	
		Total Number.	Number per 1,000 of the Population.
Hobart	29,987	741	24·70
Sydney	282,843	6,598	23·33
Brisbane	48,150	1,042	21·64
Melbourne	345,380	6,960	20·15
Wellington	23,066	374	16·21
Adelaide ‡	127,013	1,822	14·34

551. The mortality in Melbourne, Adelaide, and Wellington during 1885 was lower than the average mortality of any of the 23 following towns in the United Kingdom. In the same year the mortality in Brisbane was lower than the average of all except 3, that in Sydney of all except 6, and that in Hobart in all except 12 of those towns. The

Death rates in towns of United Kingdom.

* It is probable that the population in Northcote is over-estimated, and this would tend to unduly lower the death rate.

† With suburbs, except in the case of Wellington.

‡ There are some doubts as to whether the population of Adelaide and suburbs has not been given for a somewhat larger area than that to which the returns of deaths relate. If this should be the case, the death rate, as shown in the table, would obviously be lower than the true rate.

death rate in the last named in 1885 was just equal to the average death rate of Wolverhampton, as will be seen by comparing the following figures with those in the last table :—

DEATH RATES IN 23 BRITISH TOWNS, 1870 TO 1879.

Annual Deaths per 1,000 of the Population.			Annual Deaths per 1,000 of the Population.		
Manchester	...	29·9*	Birmingham	...	24·4
Dublin	...	29·6	Glasgow	...	24·2*
Liverpool	...	29·1	Hull	...	24·0
Salford	...	27·8	Norwich	...	23·8
Newcastle-on-Tyne	...	26·6	Bristol	...	23·7
Leeds	...	26·5	Nottingham	...	23·2
Oldham	...	26·5	London	...	22·8
Sheffield	...	25·8	Plymouth	...	22·3
Bradford	...	25·7	Edinburgh	...	20·8*
Leicester	...	25·2	Brighton	...	20·8
Wolverhampton	...	24·7	Portsmouth	...	20·2
Sunderland	...	24·6			

Death rates
in foreign
towns.

552. The death rates in all the Australasian capitals during 1885 will be found to be lower than the average death rates of most of the 45 Colonial and Foreign towns named in the subjoined list :—

DEATH RATES IN 45 COLONIAL AND FOREIGN TOWNS, 1878-80.†

Annual Deaths per 1,000 of the Population.			Annual Deaths per 1,000 of the Population.		
Vera Cruz	...	70·5	Bordeaux	...	26·7
Valparaiso	...	64·6	New York	...	26·2
St. Petersburg	...	51·4	Leipsic	...	26·1
Havanna	...	45·7	Turin	...	25·6
Rio Janeiro	...	39·4	Dresden	...	25·4
Madras	...	38·8	Stockholm	...	24·7
Madrid	...	37·4	Lyons	...	24·7
Montreal	...	37·2	Hamburg	...	24·5
Buda-Pesth	...	35·2	Bucharest	...	24·5
Bombay	...	33·7	Brussels	...	23·9
Breslau	...	32·5	Amsterdam	...	23·7
Rouen	...	31·3	Boston	...	23·5
Calcutta	...	31·1	Rotterdam	...	23·3
Mexico	...	30·9	Quebec	...	22·9
Milan	...	30·6	Venice	...	22·7
Buenos Ayres	...	30·1	Copenhagen	...	22·1
Vienna	...	29·0	Geneva	...	21·2
Paris	...	28·6	Baltimore	...	21·1
Palermo	...	28·5	Philadelphia	...	20·3
Marseilles	...	28·0	St. Louis	...	19·3
Berlin	...	27·6	Christiania	...	18·8
Chicago	...	27·2	San Francisco	...	18·1
Rome	...	26·8			

Death rates
in Victorian
towns.

553. Of the 5 principal towns in Victoria next in importance to Melbourne, 2 had in 1885 higher, and 3 had lower, death rates than that city. In none of them, however, was the death rate as high as in

* Average of years 1876 to 1879.

† Taken from Mulhall's *Dictionary of Statistics*, page 126.

the majority of British and Foreign towns just referred to, as will be seen by the following figures :—

DEATH RATES IN 6 VICTORIAN TOWNS, 1885.

		Deaths per 1,000 of the Population.			Deaths per 1,000 of the Population.
Stawell	...	23·11	|	Ballarat	... 17·71
Sandhurst	...	21·25	|	Castlemaine	... 17·23
Melbourne	...	20·15	|	Geelong	... 16·99

554. The mortality of Victoria is usually highest in the first five months and in the last month of the year. The relative mortality of the various months fluctuates, however, in different years. According to the average of a series of years, the months in which most deaths occur appear to be January, March, April, and February, in the order named; but in the year under review more deaths occurred in December than in any other month. An unusually heavy mortality also took place in August. The number of deaths in each month of 1885, and their percentage to the total number in the year, also the percentage of the deaths in each month of the decennium ended with 1880 to the total number of deaths during the same period, will be found in the following table :—

DEATHS IN EACH MONTH.

Months.	Year 1885.		Percentage in Ten Years : 1871 to 1880.
	Number of Deaths.	Percentage.	
January ...	1,268	8·83	10·29
February ...	1,287	8·96	9·09
March ...	1,340	9·33	10·17
April ...	1,204	8·38	9·73
May ...	1,158	8·06	8·55
June ...	1,060	7·38	7·44
July ...	1,062	7·39	7·89
August ...	1,299	9·04	7·37
September...	1,064	7·41	6·81
October ...	1,077	7·50	7·09
November ...	1,094	7·62	7·12
December ...	1,451	10·10	8·45
Total ...	14,364	100·00	100·00

555. In Victoria the summer is the most trying portion of the year, especially to invalids and young children. It is not astonishing, therefore, that most deaths occur during that period. Next to the summer the autumn quarter is usually the most fatal, but this was not the case in 1855, the mortality in the spring quarter having been, in that year, much the

558. The following table shows the number of deaths at various periods of age registered in Victoria during the year 1885, and the proportion of the deaths at each age to the total at all ages :—

Deaths at each age, 1885.

DEATHS AT EACH AGE, 1885.

Ages.	Number of Deaths at each Age, 1885.			Percentage of Deaths at each Age.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years ...	2,794	2,387	5,181	33·67	39·37	36·07
5 years to 10 years ...	199	196	395	2·40	3·23	2·75
10 " 15 " ...	152	116	268	1·83	1·91	1·87
15 " 20 " ...	207	205	412	2·49	3·38	2·87
20 " 25 " ...	305	284	589	3·67	4·68	4·10
25 " 35 " ...	534	558	1,092	6·43	9·20	7·60
35 " 45 " ...	557	469	1,026	6·71	7·74	7·14
45 " 55 " ...	998	534	1,532	12·02	8·81	10·66
55 " 65 " ...	1,172	501	1,673	14·12	8·26	11·65
65 " 75 " ...	836	444	1,280	10·08	7·32	8·91
75 years and upwards ...	546	370	916	6·58	6·10	6·38
Total ...	8,300	6,064	14,364	100·00	100·00	100·00

559. It will be noticed that over a third of the males and nearly two-fifths of the females who died had not reached their fifth year; that nearly a fourth of the males and nearly a third of the females were between 5 and 45 years of age; that more than a fourth of the males, but only a sixth of the females, were between 45 and 65 years of age; and that about a sixth of the males and nearly a seventh of the females were over 65 years of age ; also that, on the average, the females who died were about 13 years younger than the males—about half the former being under and half over 22 years of age, whilst about half the latter were under and half over 35 years of age.

Proportion of deaths at different ages.

560. The exact ages of the population of Victoria were ascertained at the census of 1881, and since then they have been brought on by means of the records of the births, of the deaths at each age, and of the net immigration, and thus an opportunity is afforded of calculating the death rates of males and females at different ages. Such results for 1885 are given in the following table, and are compared with the average rates which prevailed during the ten years 1871–80, the increase or decrease at each age being also shown :—

Death rate at each age.

DEATH RATE AT EACH AGE, 1871-80 AND 1885.*

Ages.	Number of Deaths per 1,000 of the Population at different Ages.					
	Males.			Females.		
	Mean of 10 Years: 1871 to 1880.	1885.	Increase + Decrease -	Mean of 10 Years: 1871 to 1880.	1885.	Increase + Decrease -
Under 5 years ...	47·34	45·90	— 1·44	42·19	40·98	— 1·21
5 to 10 „ ...	6·10	3·46	— 2·64	6·00	3·54	— 2·46
10 to 15 „ ...	3·30	2·71	— ·59	3·30	2·10	— 1·20
15 to 20 „ ...	4·43	3·61	— ·82	4·29	3·78	— ·51
20 to 25 „ ...	5·38	5·27	— ·11	5·39	5·29	— ·10
25 to 35 „ ...	7·60	7·19	— ·41	8·50	8·40	— ·10
35 to 45 „ ...	12·18	11·78	— ·40	11·76	11·12	— ·64
45 to 55 „ ...	18·67	18·60	— ·07	14·31	13·82	— ·49
55 to 65 „ ...	31·24	32·00	+ ·76	24·20	23·75	— ·45
65 to 75 „ ...	60·47	60·53	+ ·06	48·10	52·77	+ 4·67
All ages (Usual death rate)	16·45	15·99	— ·46	14·15	13·30	— ·85
All ages (Absolute death rate)†	21·79	21·41	— ·38	18·33	18·36	+ ·03

Death rate at each age 1885 compared with average of previous years.

561. It has already been stated that in 1885 the death rate of both males and females was below the average. The above table shows this to have been the case as regards males at all age-periods except 55 to 75; and as regards females at all age-periods except 65 to 75.

Usual and absolute death rates

562. It will be observed that two lines of figures are set down in the space for “All ages” at the foot of the table. The figures in the first line, representing what may be called the “Usual death rate,” are obtained by comparing the number of deaths of either sex with the number of the same sex living; and are identical, so far as 1885 is concerned, with the figures for that year given in the lowest line of the table following paragraph 529 *ante*. This mode of computing the death rate of a population, as has often been pointed out in the *Victorian Year-Book*—although that adopted in every country which publishes Vital Statistics—gives results which are misleading for the purpose of comparing the mortality of one country with that of another, or the mortality of a country at one period with the mortality of the same country at another period, unless the proportions living at different ages are identical in the two countries or at the two periods respecting which it is desired to make comparisons, which is seldom if ever the case. Therefore a mode of computing the death rate of the population

* For population at each age in 1885, see table following paragraph 72 *ante*; the deaths at each age, are given in table following paragraph 558 *ante*.

† The figures in this line represent the death rates which would have occurred assuming an equal number to have been living at each quinquennial age-period up to 75; and, as will be seen, differ entirely from the usual death rates given in the line above, which have been calculated upon the total numbers of either sex living.

as a whole, with due allowance for age, or what may be called the "Absolute death rate," has been adopted, and the resulting figures are given in the second line.

563. The "Absolute death rate" has been calculated in the following manner:—The proportions given in the columns per 1,000 of the population at every quinquennial period of age and twice those at every decennial period of age have been added, and their sum compared with the sum of numbers of 1,000 for every quinquennial and of 2,000 for every decennial period of age, the first total being considered to represent the deaths and the second the population. It is, in fact, a mean of the death rates arranged according to quinquennial ages, and will be better illustrated by the following example, showing how the "Absolute death rate" at the foot of the second column (Males—mean of 10 years: 1871 to 1880) has been obtained:—

Mode of computing absolute death rate.

MODE OF COMPUTING "ABSOLUTE DEATH RATE."

Ages.	Males 1871 to 1880.	
	Population.	Deaths.
QUINQUENNIAL AGE-PERIODS.		
Under 5 years	1,000	47·34
5 to 10 "	1,000	6·10
10 to 15 "	1,000	3·30
15 to 20 "	1,000	4·43
20 to 25 "	1,000	5·38
DECENNIAL AGE-PERIODS.		
25 to 35 years	2,000	15·20
35 to 45 "	2,000	24·36
45 to 55 "	2,000	37·34
55 to 65 "	2,000	62·48
65 to 75 "	2,000	120·94
Total	15,000	326·87

564. It is thus shown that, if the male mortality which occurred during the ten years 1871 to 1880 had been experienced by a population of 15,000 males under 75 years of age symmetrically distributed as to age—viz., 200 at each year of age, or 1,000 at each five-year period of age, or 2,000 at each ten-year period of age—there would have been 326·87 deaths, or a proportion of 21·79 to every 1,000. This proportion, according to the definition already given, is the absolute death rate, and is available for forming a correct comparison with a proportion similarly obtained relating to the other sex or to any other period or country, no matter what may have been the differences of age between the sexes at the two periods, or in the two countries. It should be mentioned that

Absolute death rate.

the age of 75 is the highest taken into the computation, as, in most countries, the deaths and population are generally tabulated in quinquennial or decennial periods up to, but not beyond, that age; and, moreover, the higher ages may safely be left out of account, since, although the death rate at such ages is high, the number living over 75 in a normal population usually amounts to only about 1 per cent.

Results
of two
methods
compared.

565. Comparing the death rates at all ages as given in the table by the two modes of computation, it is found that in 1885, whilst the mortality of males was 46 per 100,000 below the average according to the usual but unreliable method, it was 38 per 100,000 below the average according to the new and correct one; and that in the case of the females, whilst the mortality was 85 per 100,000 *below* the average according to the former method, it was 3 *above* the average according to the latter.

Death rates
at various
ages in
Victoria,
England,
and France.

566. In the next table the death rates of males and females at different ages in Victoria, England and Wales, and France are compared—the observations for Victoria and France being for periods of ten years, and those for England and Wales for a period of forty years:—

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

Ages.	Number of Deaths per 1,000 of the Population.					
	Victoria.		England and Wales.		France.	
	Average of 10 Years: 1871 to 1880.		Average of 40 Years.		Average of 10 Years.	
	Males.	Females.	Males.	Females.	Males.	Females.
All ages (Usual death rate) ...	16·45	14·15	23·2	21·1	23·80	23·19
„ (Absolute death rate)	21·79	18·33	25·5	22·7	24·82	24·16
Under 5 years	47·34	42·19	71·6	61·7	84·55	75·45
5 to 10 „	6·10	6·00	8·3	8·0	10·49	11·04
10 to 15 „	3·30	3·30	4·6	4·8	5·36	6·41
15 to 20 „	4·43	4·29	6·4	7·0	10·34	8·41
20 to 25 „	5·38	5·39	8·6	8·2		
25 to 35 „	7·60	8·50	9·7	9·7	10·02	9·69
35 to 45 „	12·18	11·76	13·2	12·2	10·96	11·03
45 to 55 „	18·67	14·31	18·7	15·6	14·76	14·88
55 to 65 „	31·24	24·20	32·6	28·1	29·19	27·27
65 to 75 „	60·47	48·10	67·1	59·7	60·69	63·49
75 to 85 „	114·80	102·94	147·2	134·3	160·22	153·76

Death rates,
usual and
absolute, in
Victoria,
England,
and France.

567. It will be observed that the average mortality of both males and females at all ages is much lower in Victoria than in England or France, but the difference is not so striking when the new method of comparison is used (absolute death rate) as it is when the old method is used (usual death rate). Thus, according to the old method, deaths of

males per 100,000 living are, in England, 670, and in France, 735, more than in Victoria; but according to the new method only 370 more in England, and 303 more in France. And, according to the old method, deaths of females per 100,000 living are, in England, 690, and in France, 904, more than in Victoria; but, according to the new method, only 440 more in England, and 583 more in France.

568. It will further be noticed that at none of the age-periods is the mortality of either males or females as high in Victoria as in England; but it is higher than in France, in the case of males at from 35 to 65 and in the case of females at from 35 to 45.

Death rate at certain ages higher in Victoria than in France.

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

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

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

Death rate of males and females in three countries compared.

571. Mr. Mulhall gives the death rate at various ages for different countries,* and these, with the figures for Victoria—which will be found in almost every instance much lower than those for any of the other countries—are subjoined:—

DEATH RATE AT VARIOUS AGES IN DIFFERENT COUNTRIES.

	Number of Deaths per 1,000 living at each Age.						
	Under 5.	5 to 10.	10 to 25.	25 to 45.	45 to 55.	55 to 65.	65 to 75.
Victoria ...	38·6	3·5	3·9	10·2	16·2	29·1	59·4
England ...	63·6	6·6	5·5	10·2	17·4	31·8	64·3
United States ...	58·8	10·1	5·4	10·8	17·6	27·2	51·4
France ...	75·6	9·2	8·8	12·7	16·6	28·3	66·3
Prussia ...	...	9·2	6·4	11·5	18·6	33·0	64·5
Austria ...	111·7	9·8	6·6	11·3	21·1	41·5	92·8
Switzerland ...	...	8·5	6·3	11·6	19·3	38·4	82·5
Italy ...	110·6	11·6	7·8	11·7	17·3	33·1	70·1
Spain ...	106·2	11·7	8·8	12·9	23·8	42·0	95·0
Belgium ...	68·1	12·7	8·1	12·9	19·0	32·3	74·5
Sweden ...	57·6	8·0	4·8	8·2	14·7	27·4	62·6

* Dictionary of Statistics, page 127.

Infantile
mortality,
1885.

572. The death rate of infants in 1885 was much higher than in the two previous years, and was also above the average, but it was not nearly so high as in 1882.* The total number who died under 1 year of age in 1885 was 3,771, and as the births numbered 29,975, it follows that 1 infant died to every 8 births, or 12·57 infants to every 100 births. In the nineteen years 1866 to 1884, the proportion of infants dying before completing their first year was 12·32 to every 100 births.*

Mortality
of male and
female
infants.

573. It has been already stated that more boys are born than girls, but the balance of the sexes is to a certain extent maintained by more male than female infants dying. This is shown in the following table, which contains a statement, for the fifteen years ended with 1885, of the number of births of boys and girls, the number of deaths of each before completing their first year, and the proportion of the deaths of infants of either sex to the number of births of infants of the same sex:—

MORTALITY OF MALE AND FEMALE INFANTS, 1871 TO 1885.

Year.	Births.		Deaths at under 1 Year of Age.			
			Total Number.		Number per 100 Births.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1871 ...	14,000	13,382	1,710	1,404	12·21	10·49
1872 ...	13,831	13,530	1,801	1,533	13·02	11·33
1873 ...	14,234	13,866	1,679	1,502	11·80	10·83
1874 ...	13,659	13,141	1,839	1,502	13·46	11·43
1875 ...	13,683	13,037	2,071	1,740	15·14	13·35
1876 ...	13,759	13,010	1,637	1,343	11·90	10·32
1877 ...	13,272	12,738	1,838	1,461	13·85	11·47
1878 ...	13,752	12,829	1,763	1,499	12·82	11·68
1879 ...	13,727	13,112	1,817	1,402	13·24	10·69
1880 ...	13,358	12,790	1,669	1,436	12·49	11·23
1881 ...	13,903	13,242	1,696	1,423	12·20	10·75
Sums and Means }	151,178	144,677	19,520	16,245	12·91	11·23
1882 ...	13,612	13,135	2,049	1,673	15·05	12·74
1883 ...	14,109	13,432	1,702	1,448	12·06	10·78
1884 ...	14,844	14,006	1,853	1,428	12·49	10·20
1885 ...	15,455	14,520	2,046	1,725	13·24	11·88

Mortality of
male greater
than of
female
infants.

574. According to a previous paragraph,† the births of male infants in a series of years were in the proportion of about 104½ to 100 female infants, and the numbers in this table point to a proportion of 120 deaths of the former to 100 of the latter. It will be noticed that in every one of the years deaths of male infants very much exceeded those of female infants; and as the numbers living were about equal (the excess, if any, being slightly in favour of male infants), the greater tendency of boys than of girls to die before completing one year of life may be considered to be invariable.

* See table following paragraph 581 *post*.

† See paragraph 490 *ante*.

575. In proportion to every 1,000 born, the number of male infants dying varied from 118 in 1873 to about 151 in 1875 and 1882, and that of female infants dying from 103 in 1876 to 134 in 1875—the mean number dying per 1,000 births during the eleven years ended with 1881 being 129 of the former and 112 of the latter. The high mortality of infants in 1875 was caused by an epidemic of measles. The next year was one in which the general mortality was much increased by an epidemic of scarlatina, but infants under 1 year appear not to have been at all affected thereby, as their mortality in 1876 was remarkably low. The high infantile mortality in 1882 was exceptional, as in that year no such epidemics were prevalent. It was not sustained in 1883 or 1884, the infantile mortality in those years having been lower than in most of the preceding ones, but in 1885 the rate again rose above the average.

Proportion of infants dying to births.

576. In classifying the deaths of infants, those are distinguished which occur at under 1 month of age, at from 1 to 3 months, at from 3 to 6 months, and at from 6 to 12 months. The numbers of these during 1885 and the eleven years ended with 1881 are shown in the following table, together with the proportion of deaths at each of those periods of age and the number at each such period to every 100 births. It will be noticed that in 1885 the mortality of males under 1 month and over 6 months, and of females under 1 month was below, but that at all other periods under 1 year was above the average:—

Deaths of infants at different ages.

AGE AT DEATH OF MALE AND FEMALE INFANTS.

Ages.	Deaths at under 1 Year of Age.				
	Year 1885.			Average of 11 Years, 1871 to 1881.	
	Number.	Percentage at each Age.	Number per 100 Births.	Percentage at each Age.	Number per 100 Births.
Boys.					
Under 1 month ...	666	32·55	4·31	34·23	4·42
1 to 3 months ...	363	17·75	2·35	17·30	2·23
3 to 6 „ ...	440	21·50	2·85	19·43	2·51
6 to 12 „ ...	577	28·20	3·73	29·04	3·75
Total ...	2,046	100·00	13·24	100·00	12·91
GIRLS.					
Under 1 month ...	465	26·96	3·20	30·81	3·46
1 to 3 months ...	320	18·55	2·20	17·23	1·94
3 to 6 „ ...	392	22·72	2·70	20·14	2·26
6 to 12 „ ...	548	31·77	3·77	31·82	3·57
Total ...	1,725	100·00	11·88	100·00	11·23

577. During the period of eleven years, also in 1885, with one exception—viz., at between 6 to 12 months of age, when the death-rate of females slightly preponderated—the mortality of male infants

More deaths of male than female infants at all ages.

exceeded that of female infants at each of the age-periods. This was more especially the case in the first month of life, when the excess of the former was fully a third; in the next two months this excess was reduced to about a fifth, in the next three months to about a seventh, and in the next six months to something less than a tenth.

Periods at which infants die.

578. Over a third of the male and nearly a third of the female infants who died before they were a year old did so in the first month after birth; about a sixth of both males and females died in the next two months; about a fifth of both males and females died in the next three months; between a third and a fourth of the males and nearly a third of the females died in the next six months. The proportions for 1885 show no material difference in this respect.

Deaths in first month and second six months of life.

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

Probable mortality of infants.

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

Infantile mortality in Australasian colonies.

581. It has been pointed out in previous issues of this work that, in proportion to the infants born, the number who die before completing one year of life is greater in South Australia* than in any of the other Australasian colonies. In 1884, however, the infantile death-rate in South Australia was much below the average, and was exceeded by that in Queensland, where it was unusually high. It was also considerably above the average in New South Wales, but much below it in the other colonies, especially New Zealand, as will be seen by the following table, which gives the number of births, the number of deaths of infants under one year, and the proportion of the latter to the former, in each of the colonies of the group, except Western Australia (which does not publish any statement of the number of infants who die), for each of the nineteen years ended with 1884. All the calculations were made in the office of the Government Statist, Melbourne:—

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

INFANTILE MORTALITY IN AUSTRALASIAN COLONIES.

Year.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.	
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.
VICTORIA.				NEW SOUTH WALES.			QUEENSLAND.		
1866	25,010	3,838	15.35	16,950	1,939	11.44	4,127	690	16.72
1867	25,608	3,534	13.80	18,317	2,269	12.39	4,476	578	12.91
1868	27,243	3,054	11.21	18,485	1,791	9.69	4,460	552	12.38
1869	26,040	3,284	12.61	19,243	1,858	9.66	4,654	528	11.35
1870	27,151	3,203	11.80	19,648	1,867	9.50	4,905	526	10.72
1871	27,382	3,114	11.37	20,143	1,812	9.00	5,205	516	9.91
1872	27,361	3,334	12.19	20,250	2,116	10.45	5,265	578	10.98
1873	28,100	3,181	11.32	21,444	1,985	9.26	5,720	701	12.26
1874	26,800	3,341	12.47	22,178	2,428	10.95	6,383	776	12.16
1875	26,720	3,811	14.26	22,528	2,695	11.96	6,706	1,025	15.28
1876	26,769	2,980	11.13	23,298	2,629	11.28	6,903	994	14.40
1877	26,010	3,299	12.68	23,851	2,785	11.68	7,169	1,058	14.76
1878	26,581	3,262	12.27	25,328	3,126	12.34	7,397	1,234	16.68
1879	26,839	3,219	11.99	26,933	2,886	10.72	7,870	917	11.65
1880	26,148	3,105	11.86	28,162	3,200	11.36	8,196	865	10.55
1881	27,145	3,119	11.49	28,903	3,341	11.56	8,220	918	11.17
1882	26,747	3,722	13.91	29,702	3,897	13.12	8,518	1,188	13.95
1883	27,541	3,150	11.44	31,281	3,590	11.48	9,890	1,319	13.34
1884	28,850	3,281	11.37	33,946	4,285	12.62	10,679	1,574	14.74
Sums and means	510,045	62,831	12.32	450,590	50,499	11.21	126,743	16,537	13.05
SOUTH AUSTRALIA.				TASMANIA.			NEW ZEALAND.		
1866	6,782	1,178	17.37	2,805	264	9.41	8,466	849	10.03
1867	7,041	1,254	17.81	2,971	267	8.98	8,918	873	9.79
1868	7,247	1,084	14.96	2,990	351	11.73	9,391	899	9.57
1869	6,976	911	13.06	2,859	291	10.18	9,718	957	9.85
1870	7,021	1,031	14.68	3,054	298	9.76	10,277	956	9.30
1871	7,082	961	13.57	3,053	260	8.52	10,592	882	8.33
1872	7,105	1,145	16.12	3,010	306	10.17	10,795	1,074	9.95
1873	7,107	990	13.93	3,048	266	8.73	11,222	1,213	10.81
1874	7,696	1,319	17.13	3,097	321	10.36	12,844	1,394	10.85
1875	7,408	1,343	18.13	3,105	407	13.11	14,438	1,816	12.58
1876	8,224	1,228	14.93	3,149	286	9.08	16,168	1,673	10.35
1877	8,640	1,212	14.03	3,211	365	11.37	16,856	1,527	9.06
1878	9,282	1,466	15.79	3,502	375	10.71	17,770	1,486	8.36
1879	9,902	1,217	12.29	3,564	384	10.77	18,070	1,941	10.74
1880	10,262	1,393	13.57	3,739	420	11.23	19,341	1,805	9.33
1881	10,708	1,364	12.74	3,918	405	10.34	18,732	1,731	9.24
1882	10,844	1,647	15.19	4,043	419	10.36	19,009	1,678	8.83
1883	11,173	1,627	14.56	4,259	528	12.40	19,202	1,995	10.39
1884	11,847	1,590	13.42	4,578	457	9.98	19,846	1,573	7.93
Sums and means	162,347	23,960	14.76	63,955	6,670	10.43	271,655	26,322	9.69

582. In the following lists the colonies are placed in order according to their respective rates of infantile mortality, the colony with the highest rate being placed first, and the rest in succession. The increased Order of colonies in respect to infantile mortality.

rate in Queensland and New South Wales is indicated by the places they occupy in the list for 1884, being higher than those they held in the list extending over a series of years :—

ORDER OF COLONIES IN REFERENCE TO INFANTILE MORTALITY.

Order in 1884.

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

Order over a Series of Years.

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

Wave of
infantile
mortality.

583. It appears from the figures in the last table that a wave of high infantile mortality spread in 1882 over the four continental colonies, but did not reach Tasmania and New Zealand until the following year, when the infantile death rate in the former was the highest with one exception, and in the latter with four exceptions, during a period of eighteen years. By 1884 this wave appears to have subsided in all the colonies except Queensland and New South Wales.

Infantile
mortality
in United
Kingdom
and France.

584. In England and Wales, the infantile mortality is somewhat lower than that in South Australia, but higher than that in any of the colonies, deaths at under 1 year of age having occurred during the ten years 1874 to 1883 in the proportion of 14·4 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, a smaller proportion than that obtaining in any Australasian colony. In France, during the year 1879, infants under 1 year died in the proportion of 15·7 per 100 births, or a higher rate than in the United Kingdom or any of its divisions. In the urban districts of France the proportion was 17·5, and in the rural districts 15·0, per 100 births. The percentage of illegitimate infants who died was 29·8, whilst that of legitimate infants was only 14·7.*

Infantile
mortality in
Melbourne
and
country.

585. The infantile mortality of large towns is naturally always above that in country districts. Thus the deaths at under 1 year of age in Melbourne and suburbs (Greater Melbourne) during the thirteen years ended with 1885 averaged 17 per 100 births, whilst in the extra-metropolitan districts of Victoria the mortality of infants at the same period of life averaged only 10 per 100 births. The following table shows the death rate of infants in the metropolis and in the other districts of the colony during each of the twelve years named :—

* See Mons. E. Cheysson's paper on the mortality of infants, *Journal de la Société de Statistique de Paris* for January, 1883, page 7.

INFANTILE MORTALITY IN AND OUTSIDE OF GREATER MELBOURNE,
1873 TO 1885.

Year.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.	
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.
	Greater Melbourne.			Victoria, outside Greater Melbourne.		
1873 ...	8,007	1,277	15.95	20,093	1,904	9.48
1874 ...	7,946	1,480	18.63	18,854	1,861	9.87
1875 ...	8,227	1,546	18.79	13,493	2,265	12.25
1876 ...	8,202	1,339	16.33	18,567	1,641	8.84
1877 ...	8,295	1,407	16.96	17,715	1,892	10.68
1878 ...	8,636	1,297	15.02	17,903	1,965	10.98
1879 ...	8,829	1,467	16.61	18,010	1,752	9.73
1880 ...	8,645	1,439	16.65	17,503	1,666	9.52
1881 ...	9,237	1,514	16.39	17,908	1,605	8.96
1882 ...	9,576	1,857	19.39	17,171	1,865	10.86
1883 ...	10,093	1,603	15.89	17,448	1,547	8.87
1884 ...	10,911	1,832	16.79	17,939	1,449	8.08
1885 ...	12,066	2,041	16.92	17,909	1,730	9.60
Sums and means }	118,670	20,099	16.94	235,513	23,142	9.83

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

INFANTILE MORTALITY IN TWENTY TOWNS OF ENGLAND,
1870 TO 1879.

Deaths under 1 Year of Age to 100 Births.			Deaths under 1 Year of Age to 100 Births.		
Portsmouth ...	...	14.4	Nottingham ...	...	18.4
London ...	...	16.0	Salford ...	...	18.6
Brighton ...	...	16.1	Manchester ...	...	19.0
Bristol ...	...	16.2	Norwich ...	...	19.1
Plymouth ...	...	16.3	Bradford ...	...	19.1
Wolverhampton ...	...	16.9	Leeds ...	...	19.5
Sunderland ...	...	17.0	Leicester ...	...	21.9
Birmingham ...	...	17.7	Liverpool ...	...	22.2
Hull ...	...	17.8			—
Sheffield ...	...	17.9			—
Oldham ...	...	17.9			—
Newcastle-on-Tyne ...	...	18.1			—
			Mean of towns named		17.4

Deaths of
infants in
Lying-in
Hospital.

587. In the Lying-in Hospital, Melbourne, 533 children were born alive during the year ended with 30th June, 1885, and of these, 50, or over 9 per cent., died before leaving the institution. In the previous year, 9 per cent.; in the year 1882-3, 7 per cent.; in 1881-2 (18 months), 11½ per cent.; in the year 1880, 5½ per cent.; in 1879, 8 per cent.; in 1878, 6½ per cent.; in 1877, 7 per cent.; and in 1876 and 1875, 9 per cent., of the infants born in the Lying-in Hospital died therein. It may be pointed out, however, that in consequence of the bad class of cases which come to maternity hospitals for treatment the infants who die in such institutions, in proportion to the numbers born, are, all over the world, in excess of a similar proportion outside.

Deaths of
children
under 5.

588. In the year 1885, deaths of male children under 5 years of age numbered 2,794, and deaths of female children under that age numbered 2,387—the former being in the proportion of about 34 per cent. and the latter of about 39 per cent. to the total number of deaths at all ages. These proportions are considerably below the average of the eleven years 1871-81, and are still lower than those which prevailed in the earlier years of that period. This is accounted for by the fact that the proportion of children to the total population has been diminishing from year to year, and is now very much lower than it was in the early years referred to. The following table shows the number of such deaths at each year of age and their proportion to the deaths at all ages in 1885 and in each of the previous fourteen years:—

DEATHS OF CHILDREN UNDER 5 YEARS OF AGE, 1871 TO 1885.

Years.	Years of Age at Death (last birthday).					Total Deaths under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion per 100 Deaths at All Ages.
MALES.							
1871 ...	1,710	463	135	79	77	2,464	42·15
1872 ...	1,801	486	155	120	102	2,664	42·23
1873 ...	1,679	456	186	146	97	2,564	39·06
1874 ...	1,839	504	184	159	128	2,814	40·43
1875 ...	2,071	917	383	234	217	3,822	44·78
1876 ...	1,637	511	312	261	210	2,931	38·04
1877 ...	1,838	512	216	123	108	2,797	38·08
1878 ...	1,763	465	176	140	87	2,631	36·65
1879 ...	1,817	353	159	117	94	2,540	36·12
1880 ...	1,669	414	156	103	74	2,416	36·55
1881 ...	1,696	357	141	102	72	2,368	33·71
Means ...	1,775	494	200	144	115	2,728	39·40
1882 ...	2,049	400	134	87	92	2,762	34·96
1883 ...	1,702	358	123	114	95	2,392	32·28
1884 ...	1,853	457	162	114	82	2,668	34·76
1885 ...	2,046	402	162	106	78	2,794	33·66

DEATHS OF CHILDREN UNDER 5 YEARS OF AGE, 1871 TO 1885—continued.

Years.	Years of Age at Death (last birthday).					Total Deaths under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion per 100 Deaths at All Ages.
FEMALES.							
1871 ...	1,404	413	136	94	68	2,115	51.93
1872 ...	1,533	473	155	106	94	2,361	52.20
1873 ...	1,502	427	160	132	119	2,340	47.41
1874 ...	1,502	472	171	135	99	2,379	45.58
1875 ...	1,740	864	408	256	169	3,437	51.22
1876 ...	1,343	469	275	217	177	2,481	42.46
1877 ...	1,461	484	171	148	102	2,366	43.57
1878 ...	1,499	481	204	108	95	2,387	43.22
1879 ...	1,402	353	156	100	89	2,100	41.28
1880 ...	1,436	386	143	89	51	2,105	41.75
1881 ...	1,423	331	124	95	65	2,038	38.61
Means ...	1,477	468	191	135	103	2,374	45.93
1882 ...	1,673	358	121	94	86	2,332	40.67
1883 ...	1,448	310	125	86	68	2,037	36.40
1884 ...	1,428	423	182	128	87	2,248	38.56
1885 ...	1,725	370	125	92	75	2,387	39.36

589. During the eleven years ended with 1881, deaths of male children under 5 numbered 30,011, and deaths of female children under 5 numbered 26,109, and thus the former exceeded the latter by 3,902, or by 15 per cent. The deaths of male children in all the years bore a smaller proportion to the total deaths of males than the deaths of female children did to the total deaths of females, a circumstance mainly due to the small proportion of adults in the female as compared with that in the male population. In 1885, the mortality of boys under 5 amounted to 34 per cent., and that of girls under 5 amounted to 39 per cent., of the whole mortality of their respective sexes. In none of the years did the former exceed 45 per cent., or the latter exceed 53 per cent., of that mortality. The epidemic period, the centre of which was 1875, is easily recognised by the increased mortality which occurred thereat.

More boys die than girls.

590. The average number of male and female children at each year of age under 5 living, during the period of eleven years ended with 1881, are compared in the next table with the average number of deaths of children of the same sexes at those ages which occurred annually during that period:—

Number of children under 5 and their deaths

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

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

Proportion of children dying annually.

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

Proportion of infants dying annually.

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

More boys died than girls.

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

Boys and girls dying under 1.

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

Proportion of deaths of children at each age.

595. Of the whole number of children who died before they attained the age of 5, nearly two-thirds, viz., 65 per cent. of the boys and 62 per cent. of the girls, were under 1 year of age; less than a fifth of the boys and about a fifth of the girls were between 1 and 2; about a fourteenth of the boys and about a twelfth of the girls were between 2 and 3; 1 in 19 of the boys and 1 in 18 of the girls were between 3 and 4; 1 in 24 of the boys and 1 in 23 of the girls were between 4 and 5.

* These results, being based upon infants living instead of births, are naturally in excess of those in total lines of last column of table following paragraph 576 ante.

† See table following paragraph 576 ante.

‡ See also paragraph 577 ante.

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

Probable mortality of children under 5.

597. The persons who died at the age of 80 or upwards numbered 487 in 1885, as against 378 in 1884, 355 in 1883, and 380 in 1882. Those in 1885 consisted of 289 males and 198 females. Twenty-nine of the males and 29 of the females had passed the age of 90, and 5 of the males and 2 of the females had passed the age of 100. The following are the exact registered ages of such persons in the last fifteen years:—

Deaths of octogenarians.

DEATHS OF OCTOGENARIANS, 1871 TO 1885.

Years of Age.	Year 1885.		Year 1884.		Year 1883.		Year 1882.		Eleven Years, 1871-81.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
80	52	27	47	27	29	30	38	31	253	144
81	30	14	20	13	12	16	34	16	135	98
82	29	18	31	12	40	26	44	17	119	97
83	32	16	18	11	34	23	20	17	101	75
84	28	23	32	31	21	13	22	16	115	79
85	38	30	19	17	16	13	16	11	91	70
86	18	14	12	8	10	3	13	15	63	61
87	13	13	6	10	5	4	4	7	65	46
88	10	5	9	7	10	5	4	10	48	38
89	10	9	5	9	2	3	2	5	35	26
90	4	9	5	1	5	5	8	4	26	37
91	3	4	3	...	2	1	2	2	10	16
92	8	2	1	2	1	4	3	3	18	18
93	1	5	1	3	3	3	2	2	9	8
94	3	2	4	...	1	3	3	1	14	8
95	1	...	1	2	2	2	1	...	16	9
96	...	1	1	1	1	...	...	...	11	4
97	...	1	1	1	...	...	...	...	3	4
98	3	2	...	1	...	...	...	1	5	2
99	1	1	...	...	...	3	...	...	8	...
100	1	1	3	...	1	...	1	1	2	5
101	...	...	1	1	...	...	...	...	1	2
102	1	...	...	...	1	...	1	...	3	...
103	...	...	...	...	2	...	...	1	1	2
104	2	...	...	...	...	...	...	...	2	1
105	...	1	...	...	...	...	...	...	2	...
106	...	...	1	...	...	...	2	...	...	1
110	...	...	...	...	...	...	...	...	...	1
111	1	...	...	...	...	...	...	...	...	...
114	...	...	...	...	...	...	...	...	...	1
Unspecified	...	...	...	...	...	...	...	...	135†	98†
Total	289	198	221	157	198	157	220	160	1,291	951

* See paragraph 580, also table following paragraph 576, ante, from which probable deaths at under 1 year of age have been deduced. Probability of deaths at other ages under 5 has been calculated from the numbers in the last table.

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

Deaths of octogenarians 1871 to 1880,

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

Average age at death.

599. The average age at death in 1885 was 30·96 years, or nearly 31 years. For males the average age was 33·48 years, or 33 years and 6 months, and for females, 27·52 years, or 27 years and 6 months. Until 1882, the average age at which both males and females die in Victoria had a tendency to advance from year to year, but since then it has remained tolerably steady, as will be seen by the following figures :—

AVERAGE AGE AT DEATH IN VICTORIA.

			Males.		Females.
			Years.		Years.
23 years—1852 to 1875	...	...	21·70	...	15·01
Year 1875	...	...	24·28	...	18·23
„ 1876	...	...	26·81	...	21·84
„ 1877	...	...	28·60	...	23·06
„ 1878	...	...	29·54	...	23·24
„ 1879	...	...	30·65	...	24·71
„ 1880	...	...	30·72	...	25·35
„ 1881	...	...	32·63	...	25·98
„ 1882	...	...	32·04	...	26·58
„ 1883	...	...	33·13	...	27·55
„ 1884	...	...	32·24	...	27·50
„ 1885	...	...	33·48	...	27·52

Classification of causes of death.

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

Nosological Index.

601. 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 connexion 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.*

602. 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.

603. It may be remarked that Dr. Farr's system of classifying the causes of death has recently been abandoned in England in favour of one based upon a mode of classification determined on by a joint committee appointed by the Royal College of Physicians, in London, for the purpose of specially considering the question. Preparations are now being made by the Government Statist of Victoria to adopt this new system in tabulating the results of the current year (1886).

New system of classifying deaths in England.

604. 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 1885, also the total number who died from each cause during the ten years ended with 1880 :—

Causes of death classified.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT.

(Ten Years : 1871 to 1880 ; and Year 1885.)

Class.	Order.	Causes of Death.	Number of Deaths.		
			Ten Years : 1871-1880	Year 1885.	
			Total. †	Chinese.	Aborigines.
		All causes	122,570	14,364	27
		Specified causes	122,244	14,339	27
		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	34,147	2,636	3
II.	...	CONSTITUTIONAL DISEASES : — Cachectici (καχεξία, bad habit of body). Sporadic diseases ; affecting several organs in which new morbid products are often deposited ; sometimes hereditary	17,227	2,312	8

* A copy of this Nosological Index was appended to the *Victorian Year-Book*, 1877-8, pp. 303 to 335.

† In New South Wales this Index has been reprinted, not only without acknowledgment, but with the addition of an ingeniously worded preface signed "E. G. Ward, Registrar-General," wherein, amongst other statements leading up to the inference that the work had been compiled either by or under the direction of Mr. Ward, a hope is expressed that the Index might be found of service not only to the officers in his Department, for whose use it was specially designed, but to the medical profession of New South Wales. However gratifying it may be to find that a work compiled in the statistical department of this colony is being used with advantage in New South Wales, disapproval must still be expressed at the unfair manner in which an officer of that colony has attempted to claim credit for its production, in which labour, as a matter of fact, no one out of Victoria had any hand whatever.

‡ The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years: 1871 to 1880; and Year 1885.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			10 Years 1871-80.	Year 1885.		
				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	46,446	6,342	89	8
IV.	...	DEVELOPMENTAL DISEASES:—Metamorphici (μεταμόρφωσις, change of form). Special diseases, the incidental result of the formative, reproductive, and nutritive processes	15,817	2,203	24	6
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	8,607	846	25	2
ORDERS.						
I.	1	<i>Miasmatic diseases</i> : — Miasmatici (μίασμα, stain; defilement)	30,956	2,288	12	3
	2	<i>Enthetic diseases</i> : — Enthetici (ἐνθετος, put in; implanted)	378	41	2	...
	3	<i>Dietic diseases</i> :—Dietici (δίαιτα, way of life; diet)	2,079	241	6	...
	4	<i>Parasitic diseases</i> :—Parasitici (παράσιτος, parasite)	734	66	...	...
II.	1	<i>Diathetic diseases</i> :—Diathetici (διάθεσις, condition; diathesis)	4,175	580	9	...
	2	<i>Tubercular diseases</i> : — Phthisisici (φθίσις, wasting away)	13,052	1,732	31	8
III.	1	<i>Brain diseases</i> :—Cephalici (κεφαλή, head) ...	13,532	1,559	14	4
	2	<i>Heart diseases</i> :—Cardiaci (καρδία, heart) ...	6,804	984	22	...
	3	<i>Lung diseases</i> :—Pneumonici (πνεύμων, lung)	13,637	2,123	34	2
	4	<i>Bowel diseases</i> :—Enterici (έντερον, intestine)	9,659	1,199	11	1
	5	<i>Kidney diseases</i> :—Nephritici (νεφρός, kidney)	2,021	379	6	...
	6	<i>Genetic diseases</i> :—Aidoici (αἰδοῖα, pudenda)	212	24	...	...
	7	<i>Bone and muscle diseases</i> :—Myostici (μῦς, muscle; ὀστέον, bone)	290	34	1	...
	8	<i>Skin diseases</i> :—Chrotici (χρῶς, skin) ...	291	40	1	1
IV.	1	<i>Developmental diseases of children</i> :—Paiidiaci (παιδία, youth)	4,784	541	...	1
	2	<i>Developmental diseases of women</i> :—Gyniaci (γυνή, woman)	1,319	114	...	...
	3	<i>Developmental diseases of old people</i> :—Geratici (γῆρας, old age)	2,727	593	9	2

* The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(10 Years : 1871 to 1880; and Year 1885.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			10 Years 1871-80.	Year 1885.		
				Total. *	Chinese.	Aborigines.
ORDERS—<i>continued.</i>						
IV.	4	<i>Diseases of nutrition</i> :—Atrophici (ἀτροφία, atrophy)	6,987	955	15	3
V.	1	<i>Accident</i> :—Tychici (τύχη, chance) ...	7,447	724	20	2
	2	<i>Battle</i> :—Polemici (πόλεμος, battle; fight) ...	...	...	...	...
	3	<i>Homicide</i> :—Androphonici (άνήρ, man; φονεύω, I kill)	190	30	2	...
	4	<i>Suicide</i> :—Autophonici (αὐτός, self; φονεύω, I kill)	951	89	3	...
	5	<i>Execution</i> :—Demiotici (δημιώτης, executioner)	19	3	...	...
DISEASES, ETC.						
I.	1	Small-pox	2	...	...	...
		Chicken-pox	13	1	...	...
		Measles	2,080	69	...	...
		Scarlatina	4,101	14	...	...
		Diphtheria	3,040	152	1	...
		Quinsy	153	7	...	...
		Croup	1,897	180	...	...
		Whooping-cough	1,974	168	...	...
		Typhoid fever, &c.	3,973	424	2	1
		Erysipelas	619	40	1	...
		Metria	461	62	...	...
		Carbuncle, boil, &c.	37	4	...	...
		Influenza, coryza, catarrh	276	74	1	1
		Dysentery	2,846	115	4	...
		Diarrhœa	7,667	827	2	1
		Cholera	523	52	...	...
		Ague	44	2	...	...
		Remittent fever	169	5	...	...
		Rheumatism	817	60	1	...
		Miasmatic diseases not classed	264	32	...	...
	2	Syphilis	286	27	2	...
		Gonorrhœa, stricture of the urethra	91	14	...	...
		Glanders	1	...	...	...
	3	Privation	157	13	5	...
		Want of breast-milk	1,165	115	...	...
		Purpura and scurvy	100	6	...	...
		Alcoholism	646	99	1	...
		Other dietic diseases	11	8	...	...
	4	Thrush	327	19	...	...
		Worms, &c.	15	...	...	...
		Hydatids	379	47	...	...
		Other parasitic diseases	13	...	...	...
II.	1	Gout	133	14	...	...
		Dropsy	613	48	1	...
		Cancer	2,957	445	8	...

* The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years: 1871 to 1880; and Year 1885.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			10 Years 1871-80.	Year 1885.		
				Total. *	Chinese.	Aborigines.
<i>DISEASES, ETC.—continued.</i>						
II.	1	Tumor	260	55	...	...
		Polypus	9	1	...	...
		Noma	34	...	...	...
		Mortification	131	16	...	...
		Other diathetic diseases	38	1	...	...
	2	Scrofula	451	41	...	1
		Tabes mesenterica	723	109	...	...
		Phthisis	10,155	1,384	27	3
		Hydrocephalus	1,394	161	2	4
		Other tubercular diseases	329	37	2	...
III.	1	Cephalitis	2,383	266	2	1
		Apoplexy	2,750	333	6	...
		Paralysis	1,547	210	1	...
		Insanity †	49	5	...	...
		Chorea	20	3	...	...
		Epilepsy	588	79	...	1
		Convulsions	3,390	316	...	1
		Other diseases of the nervous system	2,805	347	5	1
	2	Pericarditis	377	46	1	...
		Aneurism	785	58	...	...
		Other diseases of the circulatory system	5,642	880	21	...
	3	Laryngitis	359	67	...	...
		Bronchitis	4,588	651	7	...
		Pleurisy	811	113	2	...
		Pneumonia	5,077	966	13	2
		Congestion of the lungs, pulmonary apoplexy	1,812	205	5	...
		Asthma	392	65	4	...
		Other diseases of the respiratory system	598	56	3	...
	4	Gastritis	1,279	250	1	...
		Enteritis	2,134	258	1	...
		Peritonitis	771	78	...	1
		Ascites	184	13	1	...
		Ulceration of intestines	160	24	...	...
		Hernia	191	36	...	...
		Ileus	424	59	1	...
		Intussusception	93	12	...	...
		Stricture of intestines	44	5	...	...
		Fistula	17	2	...	...
		Stomach diseases undefined	692	67	...	...
		Pancreas disease	3	1	...	...
		Hepatitis	881	54	2	...
		Jaundice, gallstone	473	61	...	...
		Liver disease undefined	2,269	275	5	...
		Spleen disease	44	4	...	...
	5	Nephritis	218	45	1	...
		Ischuria	29	10	...	...
		Nephria	749	181	4	...
		Diabetes	146	33	...	...

* 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.*

(10 Years : 1871 to 1880 ; and Year 1885.)

Class.	Order.	Causes of Death.	Number of Deaths.			
			10 Years 1871-80.	Year 1885.		
				Total *	Chinese.	Aborigines.
DISEASES, ETC.—<i>continued.</i>						
III.	5	Stone, gravel	48	5	...	...
		Cystitis	203	40	1	...
		Other diseases of the urinary organs	628	65	...	...
	6	Ovarian dropsy	44	10	...	...
		Other diseases of the generative organs	168	14	...	...
	7	Arthritis	59	7	1	...
		Ostitis, periostitis	28	6	...	...
		Other diseases of the locomotive system	203	21	...	...
	8	Phlegmon, whitlow	20	...	...	...
		Ulcer	86	17	...	1
		Other diseases of the skin	185	23	1	...
IV.	1	Premature birth... ..	2,715	365	...	1
		Cyanosis	203	26	...	...
		Spina bifida	108	8	...	...
		Other malformations	279	28	...	...
		Teething	1,469	111	...	...
		Other developmental diseases of children	10	3	...	..
	2	Paramenia	52	8	...	...
		Childbirth	1,267	106	...	...
	3	Old age	2,727	593	9	2
	4	Atrophy and debility	6,987	955	15	3
V.	1	Fractures, contusions, &c.	3,152	283	12	...
		Wounds	262	29	...	...
		Burns and scalds	885	104	...	1
		Sunstroke	218	13	...	...
		Struck by lightning	25	4	...	...
		Poison	178	22	4	...
		Snake or insect bite	37	3	...	...
		Drowning	1,937	195	1	1
		Suffocation	625	54	3	...
		Other or unspecified accidents	128	17	...	...
	3	Murder and manslaughter	190	30	2	...
	4	Wounds	254	39	...	...
		Poison	188	12	...	...
		Drowning	217	15	...	...
		Hanging	256	21	3	...
		Suicide by other means	36	2	...	...
	5	Judicial hanging	19	3	...	...
	...	Causes not specified	326	25	...	...

605. The next table shows the same causes of death, arranged in the order of their fatality, during 1885, with the numbers who died from each cause in that year, and during the ten years ended with 1880, 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.

CAUSES OF DEATH IN ORDER OF FATALITY.
(10 Years : 1871 to 1880 ; and Year 1885.)

Order of Fatality.		Causes of Death in Order of Fatality, 1885.	Number of Deaths.	
10 Years : 1871-80.	Year 1885.		10 Years : 1871-80.	Year 1885.
1	1	Phthisis	10,155	1,384
6	2	Pneumonia	5,077	966
4	3	Atrophy and debility	6,987	955
5	4	Diseases of the organs of circulation not classed	5,642	880
2	5	Diarrhœa	7,667	827
3	6	Accidents	7,447	724
7	7	Bronchitis	4,588	651
16	8	Old age	2,727	593
12	9	Cancer	2,957	445
9	10	Typhoid fever	3,973	424
17	11	Premature birth	2,715	365
14	12	Diseases of the nervous system not classed	2,805	347
15	13	Apoplexy	2,750	333
10	14	Convulsions	3,390	316
19	15	Diseases of the liver not classed	2,269	275
18	16	Cephalitis	2,383	266
20	17	Enteritis	2,134	258
29	18	Gastritis	1,279	250
26	19	Paralysis	1,547	210
24	20	Congestion of lungs, pulmonary apoplexy	1,812	205
37	21	Nephria	749	181
23	22	Croup	1,897	180
22	23	Whooping-cough	1,974	168
25		Childbirth and metria	1,728	168
28	24	Hydrocephalus	1,394	161
11	25	Diphtheria	3,040	152
30	26	Want of breast-milk	1,165	115
13		Dysentery	2,846	115
34	27	Pleurisy	811	113
27	28	Teething	1,469	111
38	29	Tabes mesenterica	723	109
40	30	Alcoholism	646	99
31	31	Suicide	951	89
46	32	Epilepsy	588	79
36	33	Peritonitis	771	78
56	34	Influenza, coryza catarrh	276	74
21	35	Measles	2,080	69
53	36	Laryngitis	359	67
39		Diseases of the stomach not classed	692	67
41	37	Diseases of the urinary organs not classed	628	65
50		Asthma	392	65
45	38	Malformations	590	62
47	39	Jaundice, gallstone	473	61
33	40	Rheumatism	817	60
49	41	Ileus	424	59
35	42	Aneurism	785	58
44	43	Diseases of the respiratory system not classed	598	56
58	44	Tumor	260	55
32	45	Hepatitis	881	54
45	46	Cholera	523	52
43	47	Dropsy	613	48
51	48	Hydatids	379	47
52	49	Pericarditis	377	46
59	50	Nephritis	218	45

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

(10 Years: 1871 to 1880; and Year 1885.)

Order of Fatality.		Causes of Death in Order of Fatality, 1885.	Number of Deaths.	
10 Years: 1871-80.	Year 1885.		10 Years 1871-80.	Year 1885.
52	} 51 {	Venereal diseases	377	41
48		Scrofula	451	41
42	} 52 {	Erysipelas	619	40
60		Cystitis	203	40
54	53	Tubercular diseases not classed	329	37
61	54	Hernia	191	36
70	55	Diabetes	146	33
57	56	Miasmatic diseases not classed	264	32
62	57	Murder, manslaughter	190	30
67	58	Ulceration of intestines	160	24
63	59	Skin diseases not classed	185	23
60	60	Diseases of locomotive system not classed	203	21
55	61	Thrush	327	19
75	62	Ulcer	86	17
72	63	Mortification	131	16
8	} 64 {	Scarlatina	4,101	14
66		Diseases of the organs of generation not classed	168	14
71	} 65 {	Gout	133	14
64		Ascites	184	13
68	} 66 {	Privation	157	13
74		Intussusception	93	12
44	} 67 {	Ovarian dropsy	44	10
84		Ischuria	29	10
77	} 68 {	Paramenia	52	8
91		Dietic diseases not classed	11	8
69	} 69 {	Quinsy	153	7
76		Arthritis	59	7
73	} 70 {	Purpura and scurvy	100	6
85		Ostitis, periostitis	28	6
65	} 71 {	Remittent fever	169	5
78		Insanity	49	5
79	} 72 {	Stone, gravel	48	5
80		Stricture of the intestines	44	5
80	} 73 {	Spleen disease	44	4
82		Carbuncle, boil	37	4
86	} 74 {	Chorea	20	3
87		Execution	19	3
92	} 75 {	Developmental diseases of children not classed	10	3
80		Ague	44	2
88	} 76 {	Fistula	17	2
81		Diathetic diseases not classed	38	1
90	} 77 {	Chicken-pox	13	1
93		Polypus	9	1
94	} 78 {	Pancreas disease	3	1
83		Noma	34	...
86	...	Phlegmon, whitlow	20	...
89	...	Worms	15	...
90	...	Parasitic diseases not classed	13	...
95	...	Small-pox	2	...
96	...	Glanders	1	...
Deaths from specified causes			122,244	14,339
Deaths from unspecified causes			326	25
Deaths from all causes			122,570	14,364

Death rate
from various
causes in
Victoria and
England.

606. 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 years 1884, 1885, and the ten years ended with 1880, and the results for England and Wales to the thirty years ended with 1879:—

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 1885.	Year 1884.	Average of 10 Years: 1871 to 1880.	Average of 30 Years: 1850 to 1879.
		All causes	1,473·17	1,427·44	1,537·71	2,210·51
		Specified causes	1,470·81	1,425·43	1,533·91	2,189·90
		CLASSES.				
I.	...	Zymotic diseases	270·55	278·40	428·48	484·57
II.	...	Constitutional diseases	237·12	237·29	216·16	410·87
III.	...	Local diseases	650·43	622·56	582·80	872·15
IV.	...	Developmental diseases	225·94	202·73	198·47	346·49
V.	...	Violent deaths	86·77	84·45	108·00	75·82
		ORDERS AND DISEASES.*				
I.	1	Miasmatic diseases	234·86	241·31	388·44	458·80
		Measles	7·08	24·63	26·10	41·37
		Scarlatina	1·44	3·59	51·46	} 100·60
		Diphtheria	15·59	17·12	38·15	
		Croup	18·46	19·13	23·80	22·80
		Whooping-cough	17·23	22·09	12·22	51·90
		Typhoid fever, &c.	43·49	48·87	49·85	46·94†
		Dysentery	11·79	8·24	35·71	6·03
		Diarrhœa	84·82	67·96	96·21	87·22
		Metria (see also Child-birth and metria <i>infra</i>)	6·36	7·61	5·78	6·16
	2	Enthetic diseases (venereal diseases, &c.)	4·20	5·28	4·74	7·88
	3	Dietic diseases (privation, want of breast-milk, alcoholism, &c.)	24·72	22·83	26·09	11·83

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

† The death rate from typhoid fever is given for the ten years ended with 1879. 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 1885.	Year 1884.	Average of 10 Years: 1871 to 1880.	Average of 30 Years: 1850 to 1879.
		ORDERS AND DISEASES— <i>continued.</i>				
I.	4	Parasitic diseases (thrush, hydatids, &c.)	6.77	8.98	9.21	6.06
II.	1	Diathetic diseases	59.49	61.83	52.39	82.31
		Dropsy	4.92	6.87	7.69	34.48
		Cancer, &c.	45.64	47.14	36.98	38.96
	2	Tubercular diseases	177.63	175.46	163.77	328.56
		Phthisis	141.94	141.53	125.37	249.14
		Hydrocephalus	16.50	14.06	17.49	36.27
III.	...	Diseases of the systems—				
	1	Nervous (brain diseases, &c.)	159.89	160.03	169.80	280.80
	2	Circulatory (heart diseases, &c.)	100.92	95.23	85.37	102.38
	3	Respiratory (lung diseases, &c.)	217.73	199.34	171.12	339.02
	4	Digestive (stomach, bowels—diseases, &c.)	122.97	122.40	121.20	100.47
	5	Urinary (kidney, bladder—diseases, &c.)	38.87	37.10	25.36	29.69
	6	Generative (ovarian dropsy, &c.)	2.46	2.64	2.66	5.70
	7	Locomotive (arthritis, ostitis, &c.)	3.49	2.33	3.64	8.01
	8	Integumentary (phlegmon, ulcer, &c.)	4.10	3.49	3.65	6.08
IV.	...	Developmental diseases—				
	1	Of children (premature birth, malformation, teething, &c.)	55.49	48.73	60.03	85.00
	2	Of women	11.69	14.48	16.55	11.23
		Childbirth (see also Childbirth and metria <i>infra</i>)	10.71	13.85	15.90	10.79
	3	Of old people (old age) ...	60.82	49.47	34.22	133.02
	4	Diseases of nutrition (atrophy and debility)	97.94	90.05	87.67	117.24
V.	1	Accident or negligence	74.25	72.40	93.45	} 75.82
	3	Homicide	3.08	2.54	2.38	
	4	Suicide	9.13	9.20	11.93	
	5	Execution ... ..	.31	.31	.24	
I. IV.	1 } 2 }	Childbirth and metria ...	17.07	21.46	21.68		16.95

Diseases
more fatal
in Victoria
than in
England.

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

Zymotic
diseases.

608. Of the 271 deaths per 100,000 of the population set down to zymotic diseases in 1885, 235—or about seven-eighths—were ascribed to miasmatic diseases, which number was 6 fewer than in 1884, and 154 below the average. The diseases under this head which contributed most largely to the mortality in 1884 and 1885 respectively were, per 100,000 persons living—dysentery and diarrhœa, 76 and 97; typhoid fever, 49 and 43; diphtheria and croup, 36 and 34; whooping-cough, 22 and 17; measles, 25 and 7; and metria (or puerperal fever), 8 and 6. Dysentery and diarrhœa were the only miasmatic diseases which caused a higher rate of mortality in 1885 than in the previous year, but the rate was still considerably below the average. Typhoid fever in 1885 caused little more than half as many deaths as diarrhœa, and it has fallen off considerably since 1883, when the death rate from it was unusually high. In 1885 the death rate from this complaint was lower in this colony than in England and Wales, which is not usually the case. The death rate from diphtheria and croup in 1885 was considerably below the average. The death rate from measles, which appeared in a mild epidemic form in 1884, was less than one-third as high in 1885 as in that year; whilst scarlatina, as a cause of death, has for several years past almost entirely disappeared from the list, it having occasioned only $1\frac{1}{2}$ deaths per 100,000 living in 1885, $3\frac{1}{2}$ in 1884, and $6\frac{1}{2}$ in 1883, as compared with an average of 51 in the ten years 1871-80. The mortality from whooping-cough, although considerably lower than in the previous years, was still much above the average. On examining the list of diseases arranged in order of fatality,* it will be observed that three zymotic diseases occupy a prominent position, viz., diarrhœa, scarlatina, and typhoid fever, which were, during the decade 1871-80, respectively the second, eighth, and ninth most fatal of all diseases in Victoria; but, in 1885, the first-named disease fell to the fifth and the next to the sixty-fourth place, whilst the last—which fell only one place—was the only one which practically maintained its usual position.

* See table following 605 *ante*.

No deaths occurred from small-pox during 1885, whereas 5 deaths were caused by this complaint in 1884, but only 2 during the 10 years 1871-80. Of other zymotic diseases, the most important are metria, which caused in 1885 over 6 deaths to every 100,000 living; dietic diseases, consisting chiefly of want of breast-milk and alcoholism, nearly 25 deaths; parasitic diseases, such as thrush and hydatids, 7 deaths; and venereal diseases 4 deaths to every 100,000 living. The death rate from metria, although much lower than in 1884, was one-tenth above the average, and slightly higher than in England; whilst that from dietic diseases and that from venereal diseases were slightly below, and that from parasitic diseases was considerably below the average. The deaths from venereal disease in 1885 numbered 41, and of these 21—or just one-half—were of children under 5 years, with whom the complaint must have been congenital.

609. The following is a statement of the number of deaths from zymotic diseases and of the proportion of such deaths to the total mortality and to the population over a series of years in all the Australasian colonies except Western Australia, respecting which no information is at hand. The colonies are placed in order according to the death rate from zymotic diseases prevailing in each:—

Zymotic diseases in Australasian colonies.

ORDER OF COLONIES IN REFERENCE TO MORTALITY FROM ZYMOTIC DISEASES, 1873-82.

Colony.	Deaths from Zymotic Diseases, 1873-82.		
	Total Number.	Percentage of Total Deaths.	Annual Proportion per 10,000 Persons Living.
1. Queensland	10,245	30.11	52.7
2. Victoria	34,182	26.75	41.7
3. South Australia	9,171	25.11	38.6
4. New South Wales	23,871	22.73	35.8
5. Tasmania	3,416	19.07	31.2
6. New Zealand	12,600	25.20	30.6

610. It should be mentioned that the period named in the table can hardly be considered an average one, as it embraces the years from 1874 to 1876, in which epidemics of measles and scarlatina prevailed, Period unfavorable to Victoria;

which increased the death rate, it is true, more or less in all the colonies, but pressed with especial weight upon Victoria. In the five years ended with 1881 the mortality from zymotic diseases in Victoria was at the rate of 35·35 per 10,000, or slightly below the ten years' average in New South Wales, and in the last three years it averaged about 28 per 10,000, or below that in any of the other colonies.

Zymotic
diseases
affecting
children.

611. The seven zymotic diseases which chiefly affect children are measles, scarlatina, diphtheria, croup, whooping-cough, dysentery, and diarrhoea. The following table shows the number of deaths from such diseases which occurred during the twenty-two years ended with 1885, the annual means of the decade 1864-1873 and of the decade 1874-1883 being also given:—

DEATHS FROM ZYMOTIC DISEASES CHIEFLY AFFECTING CHILDREN,
1864 TO 1885.

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
Annual mean } 1864-1873 }	113·8	263·4	386·4	138·6	213·6	346·7	761·1	2,223·6
1874 ...	256	120	375	159	151	325	846	2,232
1875 ...	1,541	985	239	135	58	509	1,002	4,469
1876 ...	5	2,240	201	173	13	202	675	3,509
1877 ...	6	183	359	315	245	254	963	2,325
1878 ...	5	136	336	331	291	197	877	2,173
1879 ...	3	61	337	275	193	140	698	1,707
1880 ...	252	26	198	156	179	122	604	1,537
1881 ...	62	86	114	125	167	115	671	1,340
1882 ...	15	89	122	142	109	182	968	1,627
1883 ...	7	59	131	167	48	139	885	1,436
Annual mean } 1874-1883 }	215·2	398·5	241·2	197·8	145·4	218·5	818·9	2,235·5
1884 ...	233	34	162	181	209	78	643	1,540
1885 ...	69	14	152	180	168	115	827	1,525

612. Notwithstanding the increase of population, the mortality in 1885 from the seven diseases named in the table was considerably below the average, it being lower than in any other year since 1863 except 1883 and 1881. Diphtheria and croup caused a slightly smaller, measles, scarlatina, and whooping-cough a much smaller, but dysentery and diarrhoea a much larger, mortality in 1885 than in 1884. Deaths from the last-named complaints, however, were still below the average.

Children's
zymotic
diseases,
1885.

613. An epidemic of measles occurred in 1884, and caused in it and the following year 302 deaths, or 12 less than resulted from the preceding epidemic of the same complaint in 1880 and 1881. Neither of these outbreaks of measles was so serious in its effects as the two previous ones of 1874-5, and 1866-7, when the resulting deaths numbered 1797 and 1057 respectively. On the occasion of both these earlier visitations, the epidemic of measles was accompanied or followed by one of scarlatina, which proved to be even more fatal than the former complaint; but no such calamity has attended the last two outbreaks of measles, during the whole period of which, especially the last outbreak, the mortality from scarlatina was exceedingly low. The fatality attending this complaint has very much diminished of late years, the deaths from it—notwithstanding the increased population—having only numbered 369 in the last seven years, or an average of 53 per annum; as against 3,987, or an average of 570 per annum, in the preceding seven years; and 2,260, or an average of 377 per annum, in the six years ended with 1869.

Measles and
scarlatina.

614. Deaths from typhoid fever in 1885 numbered 424, or 32 less than in 1884. In proportion to population, the mortality from typhoid fever in 1885 was much below the average. A steady increase in the death rate from that complaint had taken place between 1880 and 1883—in which latter year it was, with one exception, the highest recorded during a period of 20 years—but since 1883 the rate has again fallen off. During the period referred to the death rate from typhoid fever has fluctuated considerably, but, nevertheless, there were three pretty well-marked maximum periods, viz., 1866-7, 1877-8, and 1883, when the rates rose to over $6\frac{1}{2}$ per 10,000 persons living. The minimum periods are not so well marked; but the two principal ones appear to be 1871-3 and 1880-81, when the average rate was below 4 per 10,000. Typhoid fever causes, on the average, over 3 per cent. of the total deaths from all causes, and as many as 13 per cent. of those at between 10 and 25 years of age. The following table shows the number of deaths from typhoid fever, and their proportion to the population, during each of the past twenty years:—

Typhoid
fever.

DEATHS FROM TYPHOID FEVER, 1866 TO 1885.

Year.	Deaths from Typhoid Fever.		Year.	Deaths from Typhoid Fever.	
	Total Number.	Number per 10,000 Persons Living.		Total Number.	Number per 10,000 Persons Living.
1866 ...	528	8·39	1877 ...	532	6·58
1867 ...	455	7·06	1878 ...	532	6·48
1868 ...	295	4·45	1879 ...	438	5·25
1869 ...	360	5·24	1880 ...	297	3·49
1870 ...	416	5·83	1881 ...	351	4·04
1871 ...	269	3·65	1882 ...	472	5·30
1872 ...	323	4·29	1883 ...	661	7·21
1873 ...	282	3·68	1884 ...	456	4·82
1874 ...	470	6·04	1885 ...	424	4·35
1875 ...	455	5·78			
1876 ...	375	4·71	Mean ...	419	5·30

Central Board of Health on typhoid fever.

615. The Central Board of Health in their report, dated 1st June, 1886, make the following remarks respecting typhoid fever, having especial reference to its effects during the first five months of 1886, or at more recent date than the latest year named in the table :—*

“Unfortunately typhoid fever is to be found in Melbourne nearly all the year round, but during the first three months of the year we may always look for a regular outbreak, and the first quarter of 1886 has not been an exception. Of all the diseases which are incident to the inhabitants of Victoria none are so fatal in its ravages, or more injurious to the future health of those attacked by it. While it spares neither age nor sex, it more especially attacks young people between the ages of fourteen and twenty. Young children under five years are rarely affected, and elderly people enjoy a comparative immunity. The disease is most insidious in its early stages. The symptoms become more marked at night, with a distinct remission during the day, so as to induce the sufferer to believe that it is only a cold, which will soon disappear. It is generally acknowledged that the disease is caused by a specific germ taken into the system by inhalation through the lungs, or into the stomach by drinking water, milk, or other liquid holding the poison germ in suspension. Of all fluids milk appears to absorb these germs most rapidly, and it is quite probable that they multiply in this medium, and increase in virulence. It is impossible, with our limited knowledge of the number of persons attacked (there being no legal machinery whereby the Central Board can make any approximate calculation), to estimate the rate of mortality; but it cannot, taking one year with another, be less than 10 per cent. of the number of cases. Typhoid fever is, to a great extent, a preventable disease; the germs, when generated, are propagated through neglected sanitary precautions, or through want of caution, drinking impure water or other contaminated liquids. Could we adopt the Chinese custom of never drinking water unless recently boiled, it would materially diminish the number of cases. Undoubtedly many tenements, both in Melbourne and the country districts, are damp from bad foundations, imperfect drainage, want of ventilation in the sleeping rooms, and general deficiency of light and air; and though these conditions do not produce the disease, yet it is from these *foci* that typhoid is disseminated. To successfully combat this disease, a war must be unremittingly waged against decomposing refuse and the reckless diffusion of night soil. From the commencement of the year 1886 up to the end of May 1,117 cases of typhoid were reported to the Central Board, and 256 deaths were registered as having been caused by this disease. Many cases which occur are not

* A circular on the subject of typhoid fever, issued by the Central Board of Health, is re-published in an Appendix, *post*.

reported, and some deaths are ascribed to other causes, although originating from typhoid fever. Probably as soon as the rain falls in sufficient quantity to wash the streets and flush all the drains and sewers, typhoid will disappear (with the exception of a few sporadic cases) until the following spring."

616. In England and Wales the mortality from typhoid fever has been considerably reduced of late years. During the ten years ended with 1880 the mean death rate therefrom was 4·30 per 10,000 persons living, which is even lower than in Victoria. In the years 1881, 1882, and 1883 it fell to 2·56, 2·67, and 2·63 respectively per ten thousand,* or lower than it has ever been in this colony.

617. The following table shows the mortality from typhoid fever in all the Australasian colonies except Western Australia during the twelve years ended with 1884, or during as many of those years as the information is available for :—

DEATHS FROM TYPHOID FEVER IN AUSTRALASIAN COLONIES,
1873 TO 1884.

Year.	Number of Deaths from Typhoid Fever.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	282	3·68	...	...	67	4·78
1874 ...	470	6·05	...	...	78	5·03
1875 ...	455	5·78	298	5·00	158	9·16
1876 ...	375	4·71	401	6·49	72	3·91
1877 ...	532	6·58	375	5·81	105	5·38
1878 ...	532	6·48	441	6·50	197	9·53
1879 ...	438	5·25	265	3·71	132	6·16
1880 ...	297	3·49	240	3·33	54	2·03
1881 ...	351	4·04	266	3·49	85	3·30
1882 ...	472	5·30	450	5·63	166	6·31
1883 ...	661	7·21	397	4·70	255	8·89
1884 ...	456	4·82	516	5·76	567	18·15
Total...	5,321	5·28	3,649	5·04	1,936	6·89
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	68	3·48	24	2·32	127	4·41
1874 ...	97	4·82	44	4·22	161	5·05
1875 ...	94	4·53	50	4·81	340	9·47
1876 ...	92	4·22	26	2·49	195	5·03
1877 ...	84	3·63	41	3·86	133	3·26
1878 ...	106	4·37	50	4·61	131	3·11
1879 ...	101	3·97	38	3·42	208	4·64
1880 ...	63	2·39	29	2·55	177	3·73
1881 ...	85	2·95	33	2·81	137	2·78
1882 ...	146	5·03	36	2·98	128	2·51
1883 ...	135	4·51	64	5·15	182	3·44
1884 ...	151	4·89	50	3·89	118	2·14
Total ...	1,222	4·07	485	3·60	2,037	4·13

* 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 1869, the latter being a disease which, it is said, does not exist in Victoria.

Deaths from typhoid fever in the colonies, 1885, and previous years compared.

618. In Victoria and New Zealand the death rate from typhoid fever in 1884 was much below, but in Tasmania it was slightly above, and in New South Wales, South Australia, and Queensland considerably above, the average. The rates in Victoria and Tasmania show a marked falling off in 1884 from the exceptionally high rates which prevailed in the previous year, whilst the rate in New Zealand was the lowest recorded during the whole period of twelve years. But in Queensland the mortality from typhoid fever in 1884 was simply enormous, amounting to over 18 per 10,000 of the population, or more than twice as high as in 1883, and over two-and-a-half times above the average; never before did the proportion in that or any of the other colonies reach even as high as 10 per 10,000 persons living. Mr. William T. Blakey, the Registrar-General of Queensland, writes as follows upon this subject:—*

“It may be that the drought from which Queensland suffered during 1884 has largely contributed to this result. The absence of the ordinary rain—which in the colony frequently falls with force and volume similar to that in the tropics, cleansing the open watercourses and drains in our large centres of population, and also washing all impurities from the surface—rendered the task imposed on the various Boards of Health of cleansing our cities and towns a very difficult one. It is evident from the result that, unaided by nature in the manner indicated, they have been unable to combat successfully with the death-dealing germs engendered during the hot and dry season experienced in 1884. The increased mortality from this cause—the highest ever recorded in this colony—must be looked upon with the utmost gravity, and those charged with the sanitary condition of our townships should make strenuous efforts to fight against this fatal disease, one which in nearly all cases attacks the very flower of the population, those in the prime of life and strength. The more glaring sanitary defects may have been dealt with by them, but it is apparent that many death-dealing nuisances are still in existence to cause such a heavy loss of life from typhoid fever as that which occurred last year.”

Hydatids in Victoria.

619. Hydatid disease,† which is said to be communicated to man by reason of the ova of the tape worm in dogs (*Tænia Echinococcus*) being taken into the stomach, generally in water, and to prove fatal to 25 per cent. of the human victims it attacks, during the thirteen years ended with 1885 has caused 603 deaths, or an average of 46 per annum. Per 100,000 of the population, deaths from that disease ranged from 3·79 in 1873 to 7·19 in 1879, the average for the first six years being 4·56, for the second seven years nearly 6·00, and for the whole period 5·43. In 1885, however, the mortality from hydatids was much below that of the previous six years. The following are the figures for the last thirteen years:—

* See 25th Annual Report of the Registrar-General of Queensland, page xxxi.

† A circular, on the subject of hydatid disease, issued by the Central Board of Health, is republished in an Appendix, *post*.

DEATHS FROM HYDATIDS, 1873 TO 1885.

Year.	Deaths from Hydatid Disease.		Year.	Deaths from Hydatid Disease.	
	Total Number.	Number per 100,000 Living.		Total Number.	Number per 100,000 Living.
1873 ...	29	3·79	1881 ...	48	5·50
1874 ...	41	5·27	1882 ...	58	6·51
1875 ...	47	5·97	1883 ...	56	6·10
1876 ...	36	4·52	1884 ...	59	6·24
1877 ...	37	4·57	1885 ...	47	4·82
1878 ...	37	4·50			
1879 ...	60	7·19			
1880 ...	48	5·64	Mean ...	46·4	5·43

Hydatids in Australasian colonies.

620. According to the returns of the three years ended with 1884, as embodied in the following table, hydatids in a fatal form appear to be much more common in Victoria than in any of the other Australasian colonies. It should be mentioned, however, that medical men sometimes enter the cause of death simply as "disease" of the liver, lungs, kidney, &c. In such cases inquiry should be made as to whether the "disease" referred to was hydatid disease or not, which may possibly not be done so rigidly in the other colonies as it is in Victoria, and for this reason the mortality from the complaint may appear to be relatively higher here than it really is :—

DEATHS FROM HYDATIDS IN AUSTRALASIAN COLONIES, 1882 TO 1884.

Colony.	Year.	Number of Deaths from Hydatids.	
		Total.	Per 100,000 Persons Living.
Victoria ...	1882	58	6·51
	1883	56	6·10
	1884	59	6·24
	Mean of 3 years	58	6·28
New South Wales ...	1882	12	1·50
	1883	10	1·19
	1884	20	2·23
	Mean of 3 years	14	1·64
Queensland ...	1882	3	1·26
	1883	4	1·50
	1884	8	2·68
	Mean of 3 years	5	1·81

DEATHS FROM HYDATIDS IN AUSTRALASIAN COLONIES,
1882 TO 1884--continued.

Colony.	Year.	Number of Deaths from Hydatids.	
		Total.	Per 100,000 Persons Living.
South Australia ...	1882	12	4·14
	1883	6	2·01
	1884	13	4·21
	Mean of 3 years	10	3·45
Tasmania ...	1882	4	3·31
	1883	4	3·22
	1884	6	4·67
	Mean of 3 years	5	3·73
New Zealand ...	1882	7	1·37
	1883	1	·19
	1884	3	·54
	Mean of 3 years	4	·70

Hydatids in
England.

621. Hydatid disease is much more fatal in all the Australasian colonies than it is in England and Wales, where there were only 51 deaths from it in 1881, 59 in 1882, and 53 in 1883, which numbers indicate respectively proportions of ·19, ·23, and ·20, or a mean of ·21 in the three years per 100,000 persons living.

Seat of
hydatid
disease.

622. Almost any part of the body may be affected by hydatid disease. The affected part is not always mentioned in the returns, but Dr. J. D. Thomas, of Adelaide, South Australia, in his exhaustive work upon the subject of hydatids,* gives information, obtained from Australasian, European, Indian, and American sources, of the following 1,897 cases, which are here arranged according to the frequency with which the respective parts were found to be affected with the disease :—

SEAT OF HYDATID DISEASE.

Locality of Hydatid Cyst.	Cases of Hydatid Disease.	
	Number.	Proportions per cent.
Liver	1,084	57·14
Lungs	220	11·60
Kidney	90	4·75
Brain, its membranes, and cranial cavity	83	4·38

* *Hydatid Disease; with special reference to its prevalence in Australia.* By John Davies Thomas, M.D., and F.R.C.S. Adelaide: Spiller, 1884. Page 124.

SEAT OF HYDATID DISEASE—*continued.*

Locality of Hydatid Cyst.	Cases of Hydatid Disease.	
	Number.	Proportions per cent.
Spleen	40	2·11
Pelvis	40	2·11
Heart, pericardium, and organs of circulation ...	37	1·95
Abdominal cavity, place unspecified	35	1·85
Bones	31	1·63
Uterus	29	1·53
Peritoneum, omentum, and mesentery	26	1·37
Abdominal wall	21	1·11
Subcutaneous cellular tissue	21	1·11
Face, orbit, and mouth	20	1·06
Female breast	20	1·06
Pleura	19	1·00
Ovary	16	·84
Spinal canal, spinal cord and its membranes ...	15	·79
Muscles	13	·69
Neck	10	·53
Male organs of generation, chiefly the scrotum ...	7	·37
Discharged from intestines... ..	5	·26
Mediastinum	4	·21
Trunk and limbs	2	·10
Vomited... ..	2	·10
Expectorated	2	·10
Stomach	1	·05
Bladder	1	·05
Prostate gland	1	·05
Thorax	1	·05
Bile duct	1	·05
Total	1,897	100·00

623. Dr. Thomas mentions (pp. 191 and 192) that he examined the intestines of a number of dogs in Adelaide and the south-eastern district of South Australia, and of ten dogs in Melbourne, and that 40 per cent. of the former, and 50 per cent. of the latter were found to contain echinococci. Tape worms in dogs.

624. In 1885, nearly one-sixth of the total deaths were set down to constitutional diseases, which caused 237 deaths to every 100,000 persons living, or just the same proportion as in 1884, being 21 above the average. Of the 237 deaths referred to, 142 resulted from phthisis, or pulmonary consumption; 46 were set down to cancer, which in point of fatality stood ninth on the list for 1885*; 17 to hydrocephalus, or water on the brain; and 5 to dropsy. The rates from cancer and phthisis, which differed little from those in the previous year, were much above, but those from dropsy and hydrocephalus—especially the former—were below, the average. Constitutional diseases.

* See table following paragraph 604 *ante.*

Phthisis.

625. Phthisis, or pulmonary consumption, caused 1,384 deaths in 1885, or 25 more than in 1884, and 172 more than in 1883. Except during the prevalence of epidemics, phthisis is the occasion of more deaths in Victoria than any other disease* ; in 1885, pneumonia, and atrophy and debility stood next to phthisis on the list of causes of death,* but neither of these complaints caused much more than two-thirds of the number of deaths set down to phthisis. It should also be borne in mind, as showing its baneful effects as compared with those of the other diseases named, that the deaths ascribed to atrophy and debility are for the most part those of infants and young children, whilst the majority of the victims of phthisis are at the adult period of life. The following table shows the number of deaths from phthisis, and their proportions to the total population in each of the last twenty-five years :—

DEATHS FROM PHTHISIS IN VICTORIA, 1861 TO 1885.

Year.	Deaths from Phthisis.		Year.	Deaths from Phthisis.	
	Total Number.	Number per 10,000 Persons Living.†		Total Number.	Number per 10,000 Persons Living.†
1861 ...	753	13·94	1875 ...	1,027	13·04
1862 ...	707	12·90	1876 ...	1,010	12·68
1863 ...	717	12·74	1877 ...	1,088	13·46
1864 ...	686	11·70	1878 ...	1,124	13·68
1865 ...	741	12·12	1879 ...	1,058	12·69
1866 ...	782	12·43	1880 ...	1,175	13·82
1867 ...	793	12·31	1881 ...	1,199	13·80
1868 ...	746	11·25	1882 ...	1,274	14·31
1869 ...	893	12·99	1883 ...	1,212	13·21
1870 ...	888	12·45	1884 ...	1,359	14·36
1871 ...	841	11·41	1885 ...	1,384	14·19
1872 ...	876	11·63			
1873 ...	945	12·34	Total in		
1874 ...	1,011	13·00	25 years }	24,289	12·93

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

Death rate from phthisis.

626. By the figures in the table it appears that the death rate from phthisis fell with tolerable steadiness from 1861 to 1871, but since that period there has, on the whole, been a gradual increase. During the whole period of twenty-five years the deaths from this complaint were in the proportion of nearly 13 to every 10,000 persons living; during the first eleven of those years that proportion was $12\frac{1}{3}$ (12·38), and in

* See table following paragraph 604 *ante*.

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

the last fourteen years it was rather more than 13 (13·28). In 1884 and 1885 the rate was higher than in any previous year.

627. Phthisis in Victoria generally affects males more heavily than females. In 1885, 830 of the former, and 554 of the latter, died of that complaint; the males being in the proportion of 16, but the females of only 12·15, per 10,000 of their respective sexes living. Deaths of males and females from phthisis.

628. The following table gives the number of deaths from phthisis at each age in 1885 ; also the proportion which such deaths bore to the total deaths from all causes in 1885 and in the ten years ended with 1880 :— Ages at death from phthisis.

DEATHS FROM PHTHISIS, 1885.—AGES AT DEATH.

Ages.	Number who Died from Phthisis, 1885.			Percentage of Deaths from Phthisis to those from all Causes.	
	Males.	Females.	Total.	1885.	Ten Years : 1871-80.
Under 5 years ...	20	9	29	·56	·51
5 to 10 „ ...	2	9	11	2·78	1·40
10 „ 15 „ ...	6	16	22	8·21	5·15
15 „ 20 „ ...	41	59	100	24·27	21·22
20 „ 25 „ ...	113	92	205	34·80	32·22
25 „ 35 „ ...	194	171	365	33·43	29·18
35 „ 45 „ ...	137	90	227	22·13	20·27
45 „ 55 „ ...	168	64	232	15·14	13·69
55 „ 65 „ ...	116	32	148	8·84	8·30
65 „ 75 „ ...	30	11	41	3·20	2·97
75 years and upwards...	3	1	4	·44	·83
Total ...	830	554	1,384	9·64	8·29

629. From a comparison of the figures in the last two columns, it will be observed that in proportion to the total deaths the mortality from phthisis in 1885, at all periods of life except extreme old age, was much above the average. In the year under review, over one-third of the deaths of persons between the ages of 20 and 35, about one-fourth of those between 15 and 20, and nearly one-fourth of those between 35 and 45, and over a seventh of those between 45 and 55, were caused by phthisis. Phthisis most fatal to adults.

630. Of the 1,384 deaths from phthisis in 1885, 826 occurred in Melbourne and suburbs (Greater Melbourne) and 558 in other parts of the colony. In proportion to population, the deaths from phthisis have always been much more numerous in the metropolis than in the remainder of the colony, as will be seen by the following figures, which are the results for twenty-five years :— Phthisis in Melbourne and country.

DEATHS FROM PHTHISIS PER 10,000 PERSONS LIVING IN AND OUTSIDE
GREATER MELBOURNE, 1861 TO 1885.

Year.	Greater Melbourne.	Extra-Metropolitan Districts.	Year.	Greater Melbourne.	Extra-Metropolitan Districts.
1861 ...	23·44	10·63	1874 ...	22·04	8·94
1862 ...	24·64	8·71	1875 ...	21·46	9·25
1863 ...	23·71	8·79	1876 ...	22·46	8·28
1864 ...	20·08	8·70	1877 ...	22·74	9·29
1865 ...	22·11	8·57	1878 ...	22·62	9·63
1866 ...	20·42	9·53	1879 ...	21·77	8·45
1867 ...	21·56	8·87	1880 ...	23·95	8·92
1868 ...	20·83	7·63	1881 ...	22·71	9·45
1869 ...	23·87	8·83	1882* ...	23·09	10·03
1870 ...	22·49	8·56	1883 ...	22·27	8·71
1871 ...	22·08	7·20	1884 ...	24·45	9·14
1872 ...	18·69	8·62	1885 ...	23·92	8·86
1873 ...	20·51	8·77			
			Means	22·31	8·89

Death rate
from
phthisis in
England.

631. In England and Wales, in the twenty-four years ended with 1882, the death rate from phthisis, per 10,000 persons, ranged from 26·02 in 1866 to 18·25 in 1881, the mean of the whole period being 22·91.† The average rate is much higher than that of Victoria, but appears to be only slightly higher than that of Greater Melbourne. It may be remarked that there is no doubt the death rate from phthisis in the latter has for years past been swelled by the presence of persons who started from Europe whilst suffering from the disease in an advanced stage, having been induced to take the voyage under the hope that benefit might be derived from the Australian climate, but have landed in Melbourne only to die there.

Phthisis
among
Chinese.

632. Of the Chinese who died in Victoria in 1885, 27, or 14 per cent., fell victims to phthisis; this may be considered a low proportion, for 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. In the previous year 12 per cent. of the deaths of Chinese were from phthisis.

* It will be curiously observed that in this year the death rate from phthisis both in Greater Melbourne and in the Extra-Metropolitan Districts was somewhat lower than in 1861, which may appear inconsistent with the fact that, as shown in the table following paragraph 625 *ante*, the whole death rate from phthisis in 1882 was above that in 1861. The facts, however, are quite compatible. It may sometimes happen that whilst two fractions are less respectively than two other fractions, the ratio of the sum of the numerators to the sum of the denominators of the first pair may nevertheless be greater than the ratio of the like terms of the second pair. An instance of this is cited by Mr. T. B. Sprague, Vice-President of the Institute of Actuaries, London, in an article entitled "*Does Vaccination afford any protection against Small Pox?*" in which he points out that the figures, taken as a whole, show the rate of mortality among the vaccinated to be much less than that among the unvaccinated; but when the cases are divided into those under and over 2 years of age, it is found that in each such class the rate of mortality of the vaccinated is greater than that of the unvaccinated.—See *Journal of the Institute of Actuaries*, vol. xx., page 228. C. & E. Layton, London, 1878.

† See Forty-fifth Report of the Registrar-General of England, page lviii.

633. Three out of the 27 deaths of Aborigines in 1885 were set down to phthisis. Mr. Henry Jennings, Vice-Chairman of the Board for the Protection of the Aborigines, in his report dated 1st July, 1879,* says—“Lung disease” (with which he probably includes phthisis) “is the chief cause of the death of the Aborigines, who, when once affected, very seldom recover;” and Mr. Richard Bennet, in an article entitled *Some Account of Central Australia*, † says, with reference to the Australian Aborigines generally, “From my experience among the blacks, I believe nine-tenths of them die of consumption.”

Phthisis among Aborigines.

634. The rate of mortality from phthisis in Victoria would appear, by the calculations in the following table, to have been, over a series of years, slightly lower than in Queensland, but much higher than in any other of the Australasian colonies. It will be observed that the figures of the other colonies in the several years exhibit more variation than those of Victoria, and that Queensland is the only colony besides Victoria in which the rate in any of the years exceeded 13 per 10,000; also that the rate in Queensland in 1884, viz. 19 per 1,000, was most exceptionally high ‡ :—

Phthisis in Australasian colonies.

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES,
1873 TO 1884.

Year.	Number of Deaths from Phthisis.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	945	12·34	...	...	145	10·35
1874 ...	1,011	13·00	...	...	163	10·51
1875 ...	1,027	13·04	614	10·31	228	13·22
1876 ...	1,010	12·68	616	9·96	260	14·12
1877 ...	1,088	13·46	597	9·24	225	11·53
1878 ...	1,124	13·68	652	9·62	263	12·72
1879 ...	1,058	12·69	746	10·45	281	13·12
1880 ...	1,175	13·82	803	11·13	301	13·56
1881 ...	1,199	13·80	874	11·45	292	13·21
1882 ...	1,274	14·31	927	11·60	404	17·00
1883 ...	1,212	13·21	948	11·24	471	17·58
1884 ...	1,359	14·36	1,018	11·37	572	19·15
Total ...	13,482	13·39	7,795	10·64	3,605	13·84

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

† See *Victorian Review* for April 1880, page lxxv.

‡ It is pointed out by the Registrar-General of Queensland, in recent Annual Reports, that the death rate from phthisis as well as from other complaints in that colony is considerably swelled by the high mortality amongst the Polynesians. For example, nearly half the deaths from phthisis in 1884 were of Polynesians. Excluding the Polynesians from the calculation, the death rate from phthisis in Queensland in 1884 was only 10·4 per 10,000. It is stated that the general death rate of Polynesians in Queensland during 1884 was as high as 148 per 1,000!

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES, 1873 TO
1884—continued.

Year.	Number of Deaths from Phthisis.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	153	7·84	115	11·10	206	7·16
1874 ...	179	8·89	101	9·69	270	8·47
1875 ...	209	10·07	114	10·97	339	9·45
1876 ...	226	10·36	102	9·75	307	7·92
1877 ...	203	8·78	127	11·95	326	7·98
1878 ...	267	11·00	115	10·60	326	7·73
1879 ...	271	10·66	90	8·09	399	8·90
1880 ...	277	10·51	113	9·95	447	9·42
1881 ...	274	9·49	115	9·80	468	9·28
1882 ...	341	11·77	127	10·52	438	8·60
1883 ...	313	10·47	139	11·18	500	9·45
1884 ...	323	10·46	145	11·29	498	9·01
Total...	3,036	10·02	1,403	10·41	4,524	8·61

Deaths from
cancer in
Victoria.

635. Next to phthisis, the most fatal of the constitutional diseases is cancer. This complaint caused 445 deaths in 1885, or just 1 less than in 1884, and 5 less than in 1883, but a larger number than in any other year. Cancer in a fatal form has been much increasing of late years, for during the ten years ended with 1880 it caused only 1 death in every 41 from all causes, but in 1884 the proportion had risen to 1 in 30, and in 1885 to 1 in 32; moreover, since 1861 the death rate from it has increased steadily from less than 2 to nearly 5 per 10,000 of the population in 1883, although it has somewhat fallen off since. The following table shows the number of deaths from cancer, and the number per 10,000 persons living, in each of the last twenty-five years:—

DEATHS FROM CANCER, 1861 TO 1885.

Years.	Deaths from Cancer.			
	Total Number.			Number per 10,000 Persons Living.
	Males.	Females.	Total.	
1861 ...	52	50	102	1·89
1862 ...	30	50	80	1·46
1863 ...	58	45	103	1·83
1864 ...	55	72	127	2·17
1865 ...	81	70	151	2·47
1866 ...	52	64	116	1·84
1867 ...	63	57	120	1·87
1868 ...	95	88	183	2·76
1869 ...	85	99	184	2·68
1870 ...	109	105	214	3·00

DEATHS FROM CANCER, 1861 TO 1884—*continued.*

Years.	Deaths from Cancer.			
	Total Number.			Number per 10,000 Persons Living.
	Males.	Females.	Total.	
1871	100	93	193	2·62
1872	130	96	226	3·00
1873	122	128	250	3·27
1874	146	122	268	3·45
1875	168	140	308	3·91
1876	150	153	303	3·80
1877	169	160	329	4·07
1878	182	132	314	3·82
1879	205	178	383	4·59
1880	202	181	383	4·50
1881	172	179	351	4·04
1882	208	165	373	4·19
1883	234	216	450	4·90
1884	221	225	446	4·71
1885	234	211	445	4·56
Total in 25 years...	3,323	3,079	6,402	3·42

636. Cancer is a complaint which generally affects females more than males. In the twenty-five years of which mention is made in the table, 93 of the former have died of it to every 100 of the latter, whereas the proportion of females to males at ages at which cancer is most prevalent (*i.e.* above 30 years of age) has over the whole period* been considerably below the proportion named. In 1885, 90 females died of cancer to every 100 males, although, in the population, females over the age of 30 were in the proportion of only 75 to every 100 males.

Proportions of the sexes who died of cancer.

637. Judging from the experience of the three years ended with 1884, cancer is more fatal in Victoria than in any other Australasian colony except Tasmania. This is made plain by the figures in the following table :—

DEATHS FROM CANCER IN AUSTRALASIAN COLONIES, 1882 TO 1884.

Colony.	Year.	Number of Deaths from Cancer.	
		Total.	Per 10,000 Persons Living.
Victoria	1882	373	4·19
	1883	450	4·90
	1884	446	4·71
	Mean of 3 years	423	4·60

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

DEATHS FROM CANCER IN AUSTRALASIAN COLONIES, 1882 TO 1884—
continued.

Colony.	Year.	Number of Deaths from Cancer.	
		Total.	Per 10,000 Persons Living.
New South Wales ...	1882	215	2·61
	1883	215	2·55
	1884	233	2·60
	Mean of 3 years	221	2·59
Queensland ...	1882	54	2·27
	1883	70	2·61
	1884	94	3·15
	Mean of 3 years	73	2·68
South Australia ...	1882	89	3·07
	1883	86	2·88
	1884	109	3·53
	Mean of 3 years	95	3·16
Western Australia ...	1882	9	2·96
	1883	10	3·20
	1884	10	3·09
	Mean of 2 years	10	3·08
Tasmania ...	1882	60	4·97
	1883	67	5·39
	1884	65	5·06
	Mean of 3 years	64	5·14
New Zealand ...	1882	147	2·88
	1883	158	2·99
	1884	191	3·46
	Mean of 3 years	165	3·11

Deaths from cancer in England and Wales.

638. In England and Wales there has for years past been a progressive increase in the death rate from cancer. This rate, in the three years ended with 1883, was about equal to that prevailing in Tasmania, but higher than that in any other Australasian colony. The following figures are taken from the forty-sixth report of the Registrar-General* :—

DEATHS FROM CANCER IN ENGLAND AND WALES.

			Deaths from Cancer per 10,000 Persons Living.
1861 to 1865	...	...	3·68
1866 to 1870	...	...	4·04
1871 to 1875	...	...	4·46
1876 to 1880	...	...	4·96
1881 to 1883	...	...	5·33
Mean	...	...	4·49

639. In the following remarks the Registrar-General of England, Sir Brydges Henniker, indicates that he entertains doubts as to whether the whole of the increase in the death rate from cancer shown in the returns is warranted by the facts* :—

Increase
of cancer
in England
doubtful.

“How much, if any, of this increase was real cannot be stated with any certainty, but that some part of the apparent increase was only apparent, and due to improved diagnosis and more careful statement of cause, can scarcely be doubted. Year by year the number of deaths ascribed to ‘abdominal disease,’ and other imperfectly stated causes, has been undergoing diminution, and there has been of course a corresponding addition to the mortality under the more definite headings. Moreover, the increase of mortality from cancer has been considerably greater in the male than in the female sex. Now, were the rise not only apparent but real, there would seem to be no reason why males should have suffered more than females, whereas the difference is really intelligible on the hypothesis that the rise was, at any rate in great measure, merely due to improved diagnosis. For the cancerous affections of males are in much larger proportion internal or inaccessible than are those of females, and consequently are more difficult of recognition, so that any improvement in medical diagnosis would add more to the male than to the female figures.”

640. To dropsy, which is classed as a constitutional disease, 48 deaths were attributed in 1885, and 613 in the ten years 1871 to 1880. Dropsy being rather a symptom of a disease than a disease itself, it is to be regretted that some more exact definition of the cause of death was not given in these cases. The Registrar-General of England, under the head of “Inadequate certification of causes,” † makes the following remarks on dropsy as an assigned cause of death :—

Deaths from
dropsy.

“Among the assigned causes of death, one of the most unsatisfactory, not only because of its insufficiency, but because of the great frequency with which it occurs, is dropsy. This, of course, is a symptom of a great number of diverse diseases, renal, pulmonary, hepatic, and cardiac. Yet in no less than 1,882 cases during the year dropsy was the assigned cause, without further particulars as to its origin. These 1,882 certificates were scarcely more than so much waste paper, so far as classification of deaths by causes is concerned. Seeing that the main object of the expenditure of labour and money in the tabulation of causes of death is the advance of medical knowledge, surely it is not too much to expect that medical practitioners shall not fill in their certificates in so careless a manner as to render any accurate tabulation an impossibility.”

641. Local diseases, Class III., or diseases of special organs or systems, usually cause a much higher mortality than any other class of diseases ; thus, in 1885, 6,342 deaths, or 43 per cent. of the deaths from all causes, were ascribed to them, as against 44 per cent in 1884, and an average of 38 per cent. in the ten years 1871 to 1880. The deaths from diseases placed in this class in 1885 were in the proportion to every 100,000 of the population of 650, or 28 more than in 1884, or 68 above the ten years’ average. About a fourth of these diseases were due to affections of the brain and nerves ; nearly a sixth to

Local dis-
eases.

* See his 46th Annual Report, page xviii.

† See his Forty-fourth Report, page xxi

diseases of the circulatory system, including heart disease; fully a third to lung and throat diseases—viz., bronchitis, pneumonia, pleurisy, &c.; nearly a fifth to diseases of the digestive organs; 6 per cent. to diseases of the urinary organs; and the remainder to diseases of the integumentary, locomotive, and generative systems, in the order named. In the year under review the death rate from diseases of the circulatory, respiratory, urinary, and integumentary systems was much above, whilst that from those of the nervous, generative, and locomotive systems, was below, and that from diseases of the digestive system about the same as, the decennial average.

Diseases of
respiratory
system.

642. The high mortality from diseases of the respiratory system in the last two years deserves special notice. The proportion was 199 deaths in 1884, and 218 in 1885 to every 100,000 persons living, whilst it was only 180 in 1883, and 171 during the 10 years, 1871-80. The diseases in this group cause, on the average, nearly half as many deaths again as phthisis (which is not included amongst "lung diseases," being classed as a "constitutional" disease), and about one-ninth of the total mortality. The victims are, for the most part, young children and old people, the majority dying in the winter quarter (July to September). In the year under review 2,123 deaths from these causes took place, being equal to more than one-seventh of the total mortality; and of these, pneumonia caused 966, bronchitis 651, and congestion of the lungs 205. Of those who died from these complaints, 682 were under 5 years—more than half of these being under 1 year—and 859 were over 50 years of age. One remarkable feature of the mortality from these diseases in 1885 as compared with 1884, is that, whilst the deaths of persons aged 50 and upwards increased by about 200, those of children under 5 fell off by 100—the net increase at all ages being 237. If deaths from phthisis be added to those from diseases of the respiratory system, it will be found that altogether 3,507 deaths in 1885 were from diseases particularly affecting the organs of respiration, which is equal to nearly one-fourth of the total mortality, as compared with an average proportion of not quite one-fifth.

Epidemic of
influenza.

643. The mortality from diseases of the respiratory system was to a certain extent swelled during the winter of the year under review, by an epidemic of influenza, frequently merging into bronchitis or pneumonia, which, in consequence of its being supposed to be connected with one or two fogs which prevailed during the early part of the outbreak, came to be popularly designated "fog fever." The deaths, however, happily bore only a small proportion to the number of persons affected by the complaint. The Central Board of Health have remarked upon

the subject* and have published a letter from the Government Astronomer, in which he states that he had been unable to discover any climatic cause to which the visitation can be safely attributed. The following are the remarks and letter referred to :—

“During the months of August and September, 1885, an epidemic differently designated influenza or epidemic catarrh, suddenly appeared in Melbourne and rapidly spread over the colony. It also affected South Australia, New South Wales, and Queensland. This epidemic was undoubtedly due to atmospheric causes, and although contagious in character, swept like a wave through the different colonies faster than would have been possible from one case to another. Although the number of persons attacked in Victoria was very large, the number of direct fatal cases was comparatively few.

We desire to draw attention to a letter on this subject with which we have been favoured by the Government Astronomer :—

‘Observatory, Melbourne, 19th May, 1886.

SIR,—In reply to your note of the 11th instant, relative to the outbreak of influenza last year, I beg to state—

On careful examination of our records and the meteorological conditions of the winter and spring months of 1885, which were remarkable for the prevalence of a severe form of influenza throughout the colony, we have not been able to find any climatic cause to which such an epidemic could be safely attributed. The mean temperature of the winter months was certainly slightly (0.4°) lower than the average, but I do not think this can be assumed as in any way the *chief* or even *any* cause for the epidemic in question. It certainly was in no way attributable to the fogs which were common in Melbourne at the time, for it was equally or more prevalent in our northern districts, and in the other colonies, where no fogs were experienced.

Whatever influence, Sir, brought about and kept up by this epidemic was more widespread than was at first thought, as it was not by any means confined to Australia, but was experienced in some degree over many parts of the world.

Considering the similarity of this occurrence with the great influenza epidemic in Europe in 1846 or 1847, and lesser ones since, as well as the historical accounts of former ones, I am induced to regard it as due not to any particular local climatic causes, but rather to some *general* or even *cosmical* influence, the presence of which is not recognizable except by its effects. In other words, I do not think we could trace the causes to cold, damp, fogs, prevalent winds, &c., but rather to some more universal influence, of which we have instances in the magnetic and other variable conditions of the earth, but concerning the effects of which upon the life and health of the people we are at present ignorant.

Yours faithfully,

ROB. L. J. ELLERY.

The Chairman Central Board of Health, Melbourne.’

Now that this disease is better known, and the proper treatment understood, we do not expect to find such an excessive mortality as that which occurred in Europe on its first appearance. In England, when it was first noticed, the disease was treated as inflammatory; bleeding, low diet, and purgatives were resorted to with most unsatisfactory results. It was then discovered that the disease was most exhausting, and the treatment was changed to a stimulating one, to the great benefit of the patients. It may be some years before another epidemic with like symptoms again appears, but its general exhausting character must not be lost sight of.”

644. Developmental diseases, Class IV., caused 226 deaths in 1885 to every 100,000 of the population. Of these 55 were due to diseases peculiarly affecting infants, such as premature birth, Developmental diseases

* Report of the Central Board for 1885-6, Parliamentary Paper No. 47, Session 1886, page 18.

malformations, teething, &c.; 12 to affections of women—principally accidents of childbirth; 61 to old age; and 98 to diseases of nutrition, such as atrophy and debility, of which the great majority were of infants or young children. The rate of mortality from the whole class in 1885—viz., 226 per 100,000—was 23 less than in 1884, and 27 above the average; but this increase was not distributed over all the subdivisions, for the rate from diseases of infants and of women fell off considerably; but as against this the rate from old age was nearly twice as high as, and that from atrophy and debility was 10 per cent. above, the average. The increased death rate from old age is accounted for by the circumstance that the proportion of old people in the population has increased since 1871-80 (the period over which the average extends) by 82 per cent., whilst the average age of such persons has advanced also. In like manner, the decrease under Order 1 is more apparent than real; since the proportion of infants under 1 year to the population—or, in other words, the birth rate—has fallen off by one-tenth since 1871-80. In view of a similar circumstance, in regard to children under 5 years,* the mortality from atrophy and debility has really increased even in a much greater proportion than that indicated by the death rate already referred to; in 1885, moreover, these affections caused more deaths than any other disease, except phthisis and pneumonia, their usual position in order of fatality being fourth.† The deaths of infants born prematurely numbered 365 in 1885—which number gives a proportion of nearly 10 per cent. of the total deaths under 1 year, or of $1\frac{1}{5}$ per cent. of the total births recorded, as compared with an average of 8 per cent. of the deaths under 1 year, or of 1 per cent. of the births recorded, during the decade 1871-80.

645. The death rate from a given complaint is usually ascertained by comparing the number of deaths from it with the number of persons living, but the death rate of women in childbed is better realized by comparing the number of deaths of parturient women with the total number of births. Such deaths are classified in two ways. If the death is supposed to occur merely from the consequences of child-bearing without specific disease, it is set down as of Childbirth, Class IV., Order 2; but, if it should arise from puerperal fever, it is placed under the head of Metria, Class I., Order 1. In 1885 the proportion of deaths of child-bearing women to the number of children born was not only considerably lower than the very high proportion which prevailed in the previous year, but was also much lower than in any year since 1872, except 1880:—

* See paragraph 588 *ante*.

† See table following paragraph 604 *ante*.

DEATHS OF WOMEN IN CHILDBIRTH, 1864 TO 1885.

Year.	Number of Mothers who died of—			Deaths of Mothers to every 10,000 Children Born Alive.
	Childbirth.	Metria.	Total.	
1864	100	21	121	47·12
1865	99	24	123	47·46
1866	112	26	138	55·18
1867	117	20	137	53·51
1868	110	23	133	48·82
1869	105	18	123	47·23
1870	115	9	124	45·67
1871	90	12	102	37·25
1872	123	16	139	50·80
1873	127	44	171	60·85
1874	142	109	251	93·66
1875	154	83	237	88·70
1876	117	48	165	61·64
1877	131	42	173	66·51
1878	149	49	198	74·49
1879	123	38	161	59·99
1880	111	20	131	50·09
1881	155	78	233	85·84
1882	117	59	176	65·80
1883	115	43	158	57·37
1884	131	72	203	70·36
1885	106	62	168	56·05
Total in twenty-two years	2,649	916	3,565	62·59

646. In 1884, the death rate of parturient women showed a sudden increase concurrently with the prevalence of an epidemic of measles, followed by a remarkable decrease in 1885 coincidently with the gradual disappearance of that epidemic. It is a singular fact that at or about the four periods during the last twenty-one years at which epidemics of measles and scarlatina have prevailed in Victoria,* viz., 1866-7, 1874-5, 1881-2, and 1884, the mortality of child-bearing women largely increased. Whether this is only a coincidence, or whether there is any connexion between the two circumstances, is a matter which merits the consideration of the medical faculty. It should be mentioned that the visitation in 1881-2 differed somewhat from the others, as the deaths of child-bearing women did not increase in numbers concurrently with the epidemic, but in the year following that in which it was most fatal.

Increase of
deaths in
childbed
at epidemic
periods.

647. The proportion of women dying in childbed during the whole period of twenty-one years was 1 to 165 births, and in 1885 the proportion was 1 to every 179 births. In 1884, the proportion was as high as 1 to

Deaths in
childbed in
Victoria and
United
Kingdom.

* See table following paragraph 611 *ante*.

every 142 births; in 1883, it was 1 to every 174 births; in 1882, 1 to every 152 births; in 1881, 1 to every 116 births; and in 1880, 1 to every 200 births. All these proportions, except that for 1880, are much higher than those in England and Wales, where, in the thirty-six years ended with 1882, 204 births occurred to each death of a mother.* In Scotland, 1 woman died in childbirth to every 207 births during 1873, and to every 149 births in 1874; and in Ireland, during the ten years, 1869-78, 1 woman died to every 151 births.

Deaths of
women in
Lying-in
Hospital.

648. In the Melbourne Lying-in Hospital, 564† women were confined, and 533 infants were born alive, during the year ended 30th June, 1885. Thirty-three deaths of mothers occurred during or shortly after parturition; or 1 death of a mother to every 17 deliveries, or to every 16 births; this is a most excessive rate of mortality, and finds not one single parallel during the last eleven years; the proportion being nearly twice as high as that which prevailed in 1883-4 or 1881, in the latter of which the mortality of child-bearing women in the colony generally was at its maximum, and as much as four or five times as high as it has often been in many previous years. In 1883-4, 1 death of a mother took place in this institution to every 31 deliveries, or 28 births; in 1882-3, 1 to 86 deliveries or 77 births; in 1882 (first six months), 1 to 60 deliveries or 56 births; in 1881, 1 to 29 deliveries or 27 births; in 1880, 1 to 98 deliveries or 89 births; in 1879, 1 to 71 deliveries or 67 births; in 1878, 1 to 92 deliveries or 86 births; in 1877, 1 to 65 deliveries or 61 births; in 1876, 1 to 68 deliveries or 65 births; and in 1875, 1 to 67 deliveries or 62 births. These proportions are, on the average, about $2\frac{1}{2}$ times as high as those for the whole colony; but it should be mentioned that, all over the world, maternity hospitals are subject to receive a worse class of cases than the average of those dealt with outside, women not unfrequently being brought in such a state as to render their recovery from the first almost hopeless; therefore, in all such institutions, the death rate of the inmates is higher than that which prevails amongst child-bearing women in the general population.

Causes of
death in
Lying-in
Hospital

649. From the report of the Lying-in Hospital for 1883-4, it appears that towards the close of that financial year, the committee being alarmed at the high rate of mortality which about that time

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

† Including 173 cases occurring outside the hospital at houses provided by the committee, amongst whom 5 deaths occurred.

prevailed in the institution, took steps to have the patients boarded out, and the wards thoroughly cleansed and disinfected—the walls being painted with an antiseptic composition, and the lighting and ventilation improved. The committee went on to state that the overcrowding of the institution, in order to meet the increasing demands made upon it, had been the cause of its unhealthiness; and that, in accordance with the requirements of the Central Board of Health, it had become incumbent upon them to lessen the accommodation by reducing the number of beds in each ward. These precautions, however, appear to have had little or no effect in reducing the death rate; but, on the contrary, the excessive mortality in 1883–4 was nearly doubled in 1884–5, the number of deaths having risen from 19 to 33. The overcrowding of the institution is held to be largely accountable for this high mortality, and in the report for 1884–5, it is shown that, although the midwifery department is incapable of properly accommodating more than 17 patients, the number on the books has varied from 15 to 40, and has averaged 25. It is also stated that (in order presumably to lessen the chances of infection) two resident surgeons were appointed in February, 1885—one to the charge of the midwifery wards, and the other to that of the infirmary. This arrangement, however, only lasted 9 or 10 months, for one resident surgeon having resigned, the two divisions were again placed under the supervision of only one medical officer; but it is asserted that, when the new wing—to be soon erected for the use of midwifery patients only—is completed, the isolation of the two departments will be rigidly maintained. Of the 33 women who died in 1884–5, after being confined in the hospital, or outside in houses under the supervision of its officers, 15* are stated to have fallen victims to puerperal peritonitis, 3† to puerperal septicæmia, 3 to uterine phlebitis, 1 to puerperal mania and convulsions, 1 to pelvic cellulitis, 3 to inflammation or congestion of the brain, 3 to pneumonia, 1 to chronic kidney disease, besides 3 others. It is further stated that 1 of these women was admitted in a dying, and 1 in an unconscious, state; 5 were admitted in a low and debilitated condition from disease; and 2 had attempted abortion previous to admission.

650. Deaths of lying-in women appear to be more common in Victoria than in any other Australasian colony. It should, however, be mentioned that the fact of a woman dying in childbed is not always at once discoverable from the death registers. Whether from a desire to conceal the fact of their losing patients in this manner, or from

Deaths in
childbed in
Austral-
asian
colonies.

* One of these was also suffering from Bright's disease.

† One of these was also suffering from syphilis.

inadvertence, medical men frequently enter the cause of death as debility, exhaustion, blood-poisoning, pyæmia, septicæmia, phlebitis, embolism, peritonitis, hæmorrhage, &c., omitting to state that these circumstances were consequent upon child-bearing until specially asked whether such was the case. The causes of death of females at child-bearing ages should be carefully scrutinized, and the entry should be referred back for inquiry in all cases where the death is stated to have occurred from any of the above causes. It is questionable whether in any of the other colonies the scrutiny is as close as it is in Victoria, and hence it is probable that the full extent of the mortality in childbirth occurring is not known. The inaccuracy with which such deaths are often described is beginning to excite attention in England, where the Registrar-General in 1881 and 1882 caused special letters of inquiry to be sent out respecting doubtful deaths of women at child-bearing ages, with the result that 348 deaths in the former and 428 in the latter year were added to those assigned to puerperal fever and the other incidents of childbirth.* Such a practice had been followed for some years in Victoria, and it is much to be wished it should be adopted by the other colonies of this group. The following table contains a statement of the deaths recorded as having occurred from childbirth and metria in all the Australasian colonies except Western Australia during the twelve years ended with 1884, 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 1884.

Year.	Number of Deaths from Childbirth and Metria.					
	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	171	60·85	...	...	23	40·21
1874 ...	251	93·66	...	...	33	51·70
1875 ...	237	88·70	149	66·14	37	55·17
1876 ...	165	61·64	186	79·84	43	62·29
1877 ...	173	66·51	113	47·38	53	73·93
1878 ...	198	74·49	103	40·67	46	62·19
1879 ...	161	59·99	90	33·42	38	48·28
1880 ...	131	50·09	127	45·10	42	51·24
1881 ...	233	85·84	117	40·35	70	85·15
1882 ...	176	65·80	118	39·73	49	57·53
1883 ...	158	57·37	114	36·44	42	42·47
1884 ...	203	70·36	137	40·36	67	62·74
Sums & } Means }	2,257	69·61	1,254	45·77	543	57·74

* See 27th Annual Report for the year 1883-4.

DEATHS FROM CHILDBIRTH AND METRIA IN AUSTRALASIAN COLONIES, 1873 TO 1884—*continued.*

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.
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	22	30·96	26	85·30	52	46·34
1874 ...	38	49·38	20	64·58	74	57·61
1875 ...	54	72·89	32	103·06	93	64·41
1876 ...	49	59·58	20	63·51	74	45·77
1877 ...	45	52·08	25	77·86	74	43·90
1878 ...	41	44·17	16	45·69	85	47·83
1879 ...	50	50·49	11	30·86	81	44·83
1880 ...	39	38·00	18	48·14	76	39·29
1881 ...	63	58·83	14	35·73	92	49·11
1882 ...	70	64·55	14	34·63	101	53·14
1883 ...	49	43·86	19	44·61	95	49·47
1884 ...	49	41·36	12	26·21	117	58·95
Sums & Means }	569	50·31	227	52·53	1,014	50·00

651. The above figures show that, in proportion to the children born alive, the number of deaths of child-bearing women in 1884 was much higher than in the previous year in Victoria, New South Wales, Queensland, and New Zealand, and in all of these except New South Wales it was above the average; but in South Australia and Tasmania the rate appears to have been unusually low in 1884, being nearly 20 per cent. in the former, and over 50 per cent. in the latter, below the average.

Low death rate from childbirth in colonies, 1884.

652. The connexion between the prevalence of measles and scarlatina and of those circumstances which cause the deaths of women in childbed is exemplified in the returns of the neighbouring colonies as well as in those of Victoria; these epidemics being at their height during the period 1874 to 1876, concurrently with the greatest mortality occurring to child-bearing women. In one year of that period the rate in Victoria rose to nearly 1 death of a mother to every 100 children born alive, and in Tasmania to over 1 to every 100.

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

653. In proportion to every 100,000 of the population, deaths under the head of atrophy and debility in 1885 were more numerous by 8 than in 1884, and exceeded by 10 the average during the decade 1871-80. The mortality under this head is almost entirely confined to infants and young children—thus, of the 955 deaths set down thereto in 1885, 865 were under 5 years, 789 were under 1 year, 290 were

Atrophy and debility in Victoria.

under 1 month, of age. In proportion to the numbers living at the ages just referred to, the mortality from this cause is considerably above the average. 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 some importance, it is to be desired that medical men should, where possible, define them more accurately. The following are the numbers of both sexes recorded as having died from atrophy and debility in each of the nineteen years ended with 1885 :—

DEATHS FROM ATROPHY AND DEBILITY, 1867 TO 1885.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1867 ...	399	347	746	1877 ...	344	304	648
1868 ...	337	328	665	1878 ...	389	311	700
1869 ...	386	337	723	1879 ...	407	304	711
1870 ...	422	368	790	1880 ...	369	324	693
1871 ...	368	311	679	1881 ...	392	345	737
1872 ...	354	338	692	1882 ...	493	442	935
1873 ...	378	336	714	1883 ...	412	387	799
1874 ...	402	337	739	1884 ...	488	365	853
1875 ...	413	349	762	1885 ...	541	414	955
1876 ...	344	305	649				
Annual mean 1867 to 1876	380·3	335·6	715·9	Annual mean 1877 to 1885	426·1	355·1	781·2

Sex of those
who died
of atrophy,
&c.

654. Notwithstanding the proportions of the sexes of persons at ages to be affected by atrophy and debility were about equal, it will be observed that in every one of the years more males died than females. During the whole period, females died of these complaints in the proportion of 86 to every 100 males.

Atrophy and
debility in
Austra-
lasian
colonies

655. The mortality from atrophy and debility appears to depend to a great extent upon climate, the death rate as calculated upon the total population, being generally highest in the hottest colonies. Thus this rate is highest in Queensland, then in South Australia, Western Australia, and New South Wales in the order named. In Tasmania it is slightly higher than in Victoria, but this may perhaps result from the proportion of very young children being larger there than here. In New Zealand the rate is lower than in any other Australasian colony. The following are the figures for the three years ended with 1884 :—

DEATHS FROM ATROPHY AND DEBILITY IN AUSTRALASIAN COLONIES,
1882 TO 1884.

Colony.	Year.	Number of Deaths from Atrophy and Debility.	
		Total.	Per 10,000 Persons Living.
Victoria ... {	1882	935	10·49
	1883	799	8·71
	1884	853	9·02
	Mean of 3 years	862	9·41
New South Wales ... {	1882	776	9·71
	1883	832	9·86
	1884	975	10·89
	Mean of 3 years	861	10·15
Queensland ... {	1882	299	12·58
	1883	344	12·84
	1884	438	14·66
	Mean of 3 years	360	13·36
South Australia ... {	1882	337	11·62
	1883	353	11·81
	1884	380	12·31
	Mean of 3 years	357	11·91
Western Australia ... {	1882	30	9·87
	1883	19	6·08
	1884	35	10·83
	Mean of 3 years	28	8·93
Tasmania ... {	1882	112	9·28
	1883	124	9·98
	1884	126	9·81
	Mean of 3 years	121	9·69
New Zealand ... {	1882	334	6·56
	1883	269	5·08
	1884	304	5·50
	Mean of 3 years	302	5·71

656. Deaths from external causes, Class V., in proportion to population, were formerly twice as numerous in Victoria as in England and Wales; but in recent years, as the number of individuals engaged in violent deaths.

mining operations has decreased, the rate in the former has fallen considerably. Over a series of twenty-seven years, the average annual number of violent deaths per 100,000 of the population was 136, but during the ten years 1871-80 it was only 108, in 1885 it fell to as low as 87, which was somewhat higher than in 1884. The last-named rate, however, is still higher by about a seventh than the rate prevailing in England and Wales, where it averages only 76.

Violent
deaths, 1885
and pre-
vious years.

657. The number of violent deaths recorded in Victoria during 1885 was 846, of which 724, or 86 per cent., were ascribed to accident; 30, or $3\frac{1}{2}$ per cent., to homicide; 89, or $10\frac{1}{2}$ per cent., to suicide; and 3 were due to execution. Deaths from accidents were more numerous formerly than those from any single disease, and more recently than those from any disease except phthisis and diarrhœa, but in 1885 they had fallen to the sixth place on the list.* Thirty-nine per cent. of the deaths from accidents in that year were due to fractures, 27 per cent. to drowning, and 14 per cent. to burns and scalds. Homicides were above, but suicides were below, the average of the ten years ended with 1880; the latter numbered 89, as against 86 in 1884, and 103 in 1883. The following table shows the number of deaths and the exact modes of death under the heads of accident and suicide, also the number of deaths from homicide and execution, during the year 1885 and the decade ended with 1880, the sexes of those who died being distinguished:—

VIOLENT DEATHS.

Causes of Death.	Year 1885.			Ten Years: 1871 to 1880.		
	Males.	Females.	Total.	Males.	Females.	Total.
Accidents:—						
Fractures and contusions	257	26	283	2,911	241	3,152
Gunshot wounds ...	18	...	18			
Cuts, stabs, &c. ...	8	3	11	226	36	262
Burns and scalds ...	39	65	104			
Sunstroke ...	11	2	13	158	60	218
Lightning ...	4	...	4	22	3	25
Poison ...	18	4	22	112	66	178
Snake, insect—bite ...	2	1	3	24	13	37
Drowning ...	162	33	195	1,558	379	1,937
Suffocation ...	28	26	54	409	216	625
Others ...	12	5	17	97	31	128
Total ...	559	165	724	5,888	1,559	7,447
Homicide ...	14	16	30	123	67	190

* See table following paragraph 605 *ante*.

VIOLENT DEATHS—*continued.*

Causes of Death.	Year 1885.			Ten Years: 1871 to 1880.		
	Males.	Females.	Total.	Males.	Females.	Total.
Suicide :—						
Gunshot wounds ...	18	...	18	69	...	69
Cuts, stabs, &c. ...	20	1	21	164	21	185
Poison ...	6	6	12	144	44	188
Drowning ...	11	4	15	151	66	217
Hanging ...	19	2	21	233	23	256
Otherwise ...	2	...	2	31	5	36
Total ...	76	13	89	792	159	951
Execution ...	3	...	3	19	...	19
Grand Total ...	652	194	846	6,822	1,785	8,607

658. During the ten years ended with 1880, 69,916 males and 52,328 females died of specified causes ; and it results from these figures and those in the foregoing table, that, of the males, 1 in every 10 died a violent death ; 1 in every 12 died of an accident ; 1 in every 568 was a victim to homicide ; 1 in every 88 committed suicide ; and 1 in every 3,680 was executed. Of the females, 1 in every 29 died a violent death ; 1 in every 34 died of an accident ; 1 in every 781 died by the hand of another ; 1 in every 329 committed suicide ; but, happily, not one was executed.

Violent deaths in proportion to total deaths.

659. Males are much more subject to violent deaths than females. Of those who so died in 1885, 652, or 77 per cent., belonged to the male, and 194, or 23 per cent., to the female, sex.

Violent deaths of males and females.

660. 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 3 males are murdered ; where 1 female commits suicide, 5 males do so. Only 1 woman has been executed in the colony since its first settlement ; but in the 34½ years since Victoria has been an independent colony as many as 127 males were executed.

Violent deaths : proportion of males and females.

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

Burns and scalds.

662. Eighty-nine persons took their own lives in 1885, and 86 in the previous year. During the ten years ended with 1880 the mean annual number of deaths by suicide was 95.

Suicidal deaths.

663. Hanging is the most common mode by which men commit suicide, cutting or stabbing usually the next, drowning and taking poison with

Modes of suicide in Victoria.

almost equal frequency the next, shooting the next. Females most frequently take their lives by drowning, next so by taking poison, next by hanging or stabbing, but not once in the 172 cases named in the table by shooting.

Modes of
suicide in
England.

664. Dr. Ogle, in an able and interesting paper on suicide, read by him before the Statistical Society of London, in February 1886, gives the following table, showing the proportion during a series of years of suicides effected by different methods in England and Wales.* The relative frequency of each method follows substantially the same order as that obtaining in Victoria:—

MODES OF COMMITTING SUICIDE IN ENGLAND AND WALES.

Methods.	Number by each Method per 1,000 by all Methods.		
	Males.	Females.	Both.
Hanging or strangulation ...	417	240	365
Drowning	152	264	185
Cut or stab	207	129	184
Poison	79	145	99
Shooting	67	2	48
Jump from height	21	36	25
Railway train	24	8	19
Otherwise	33	176	75
Total	1,000	1,000	1,000

Suicides of
Chinese.

665. Suicide frequently occurs amongst the Chinese. Three men of this race committed that act in 1885—all by hanging. The total number of Chinese males in the colony is about 12,000; so that those who committed suicide during the year were in the proportion of about 1 in 4,000. In the general population the proportion averages only 1 in about 8,000.

Suicides in
Austral-
asian
colonies.

666. 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 inquiry, is therefore necessary to determine that fact. It is hence likely that the full extent to which suicide prevails in some of the colonies is not ascertained. The following are the suicides and their proportion to every 100,000 of the population during the twelve years ended with 1884 recorded in all the Australasian colonies except Western Australia:—

* "Suicides in England and Wales," by William Ogle, M.A., M.D., F.R.C.P., *Journal of the Statistical Society*, March, 1886.

DEATHS FROM SUICIDE IN AUSTRALASIAN COLONIES,
1873 TO 1884.

Year.	Number of Deaths from Suicide.					
	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	97	12·7	41	7·5	22	15·7
1874 ...	97	12·5	64	11·2	10	6·4
1875 ...	91	11·6	55	9·2	23	13·3
1876 ...	100	12·6	61	9·9	24	13·0
1877 ...	92	11·4	66	10·2	27	13·8
1878 ...	87	10·6	48	7·1	29	14·0
1879 ...	108	13·0	62	8·6	40	18·7
1880 ...	118	13·9	68	9·4	22	9·9
1881 ...	102	11·7	83	10·9	21	9·5
1882 ...	83	9·3	55	6·9	40	16·8
1883 ...	103	11·2	54	6·4	37	13·8
1884 ...	86	9·1	81	9·0	45	15·1
Means...	97	11·6	62	8·9	28	13·2
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	10	5·1	6	5·8	20	7·0
1874 ...	22	10·9	6	5·8	20	6·3
1875 ...	24	11·5	6	5·8	29	8·1
1876 ...	15	6·9	6	5·7	42	10·8
1877 ...	17	7·3	10	9·4	32	7·8
1878 ...	18	7·4	8	7·4	37	8·8
1879 ...	18	7·1	5	4·5	42	9·4
1880 ...	25	9·5	8	7·0	38	8·0
1881 ...	34	11·8	6	5·1	42	8·5
1882 ...	18	6·3	3	2·5	53	10·4
1883 ...	31	10·4	5	4·0	55	10·4
1884 ...	31	10·0	7	5·5	57	10·3
Means...	22	8·7	6	5·7	39	8·8

667. 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 thrice in New South Wales, four times in New Zealand, and five times in South Australia, during the twelve years named in the table. The rate in Tasmania appears to be much lower than in any of the other colonies.

Proportion of suicides in different colonies.

668. In England and Wales, according to figures given by Dr. Ogle,* the suicide rate is lower than in any of the Australasian colonies, except

Suicides in England and Wales.

* See *Statistical Journal*, March, 1886, page 112.

Tasmania. It has, however, increased not inconsiderably of late years. The following are the figures referred to:—

DEATHS FROM SUICIDE IN ENGLAND AND WALES.

						Deaths from Suicide per 100,000 Persons Living.	
1861 to 1865	...	...	...	...	...	6.52	
1866 to 1870	...	...	...	...	...	6.64	
1871 to 1875	...	...	...	...	...	6.62	
1876 to 1880	...	...	...	...	...	7.38	
1881 to 1884	...	..	...	...	...	7.43	
Mean ...						...	6.92

669. Suicide in France appears to be much more rife than it is in England and Wales, or than in any of the Australasian colonies; it also appears to be largely increasing in that country. This is shown by the following calculations, which have been based upon figures given in a recent number of the *Journal Officiel*:—

DEATHS FROM SUICIDE IN FRANCE.

						Deaths from Suicide per 100,000 Persons Living.	
1861 to 1865	...	...	...	...	...	12.4	
1866 to 1870	...	...	...	...	...	13.5	
1871 to 1875	...	...	...	...	...	16.9	
1876 to 1880	...	...	...	...	...	16.9	
1881 to 1884	...	...	...	...	...	18.9	
Mean ...						...	15.7

670. Statistics of suicide in a number of countries have been collected with much care by Dr. Enrico Morselli, Professor of Psychological Medicine in the Royal University of Turin. Dr. Morselli arrives at the conclusion that suicide is increasing in almost every country; that "religion and morals have never reached the root of the calamity"; that the sole preventive, not only against suicide but against madness, would consist in "diminishing the struggle for life amongst men, and in developing in man the well ordering sentiments and ideas by which to reach a certain aim in life; in short, to give force and energy to the moral character." From his work on the subject, the following proportions have been abstracted*:

DEATHS FROM SUICIDE IN FOREIGN COUNTRIES.

		Deaths from Suicide in each year per 100,000 Persons Living.		Deaths from Suicide in each year per 100,000 Persons Living.			
Saxony	31.1	Norway	...	...	7.5
Denmark	25.8	Belgium	...	...	6.9
Schleswig-Holstein	24.0	Hungary	...	...	5.2
Austria	21.2	Italy	...	...	3.7
France	15.0	Netherlands	...	...	3.6
Hanover	14.0	United States	...	...	3.5
Prussia	13.3	Russia	...	...	2.9
Bavaria	9.1	Spain	...	...	1.4
Sweden	8.1				

* See *Suicide*, by Henry Morselli, M.D. Table IV., page 30. London: Kegan Paul & Co., 1881.

671. It will be observed that, in proportion to population, suicide is more rife in Saxony, Denmark, Schleswig-Holstein, Austria, France, Hanover, and Prussia than in Queensland, Victoria, or New South Wales; and in those countries, with the addition of Bavaria, than in South Australia and New Zealand; whilst Tasmania stands not only below these, but also below Sweden, Norway, and Belgium. The only countries quoted which stand below any of the Australasian colonies in point of frequency of suicide are Hungary, Italy, the Netherlands, the United States, Russia, and Spain.

Suicides in Australasia and Foreign countries.

672. In addition to the above, figures for the following countries are given by Mr. Mulhall.* The observations extend over the years 1871 to 1877:—

Suicides in certain countries.

DEATHS FROM SUICIDE IN CERTAIN COUNTRIES.

	Deaths from Suicide in each year per 100,000 Persons Living.		Deaths from Suicide in each year per 100,000 Persons Living.
Switzerland ...	... 20·2	Scotland ...	... 4·0
Germany ...	... 14·3	Ireland ...	... 1·7
Sweden and Norway ...	... 8·1		

673. Mr. Mulhall thinks that the most notable causes of the increase of suicide are “the increase of railways and commerce, the great consumption of spirits and flesh meat, the spread of secular education and infidelity, the rapid growth of urban and decline of rural life, the higher ratio of insanity, the increase of wealth, the new system of divorce, and the keener struggle for existence in Europe, owing to the greater density of population.”

Causes assigned for increase of suicide.

674. According to the following figures, violent deaths during the three years ended with 1884 were less common in Victoria than in any other of the Australasian colonies, except South Australia and Tasmania:—

Violent deaths in Australasian colonies.

VIOLENT DEATHS IN AUSTRALASIAN COLONIES, 1882 TO 1884.

Colony.	Year.	Number of Violent Deaths.	
		Total.	Per 10,000 Persons Living.
Victoria ...	1882	841	9·44
	1883	908	9·90
	1884	799	8·45
	Mean of 3 years	849	9·26
New South Wales ...	1882	904	11·31
	1883	850	10·08
	1884	990	11·06
	Mean of 3 years	915	10·82

* Dictionary of Statistics, page 429.

VIOLENT DEATHS IN AUSTRALASIAN COLONIES, 1882 TO 1884—
continued.

Colony.	Year.	Number of Violent Deaths.	
		Total.	Per 10,000 Persons Living.
Queensland ...	1882	439	18·48
	1883	396	14·78
	1884	509	17·04
	Mean of 3 years	448	16·77
South Australia ...	1882	210	7·24
	1883	202	6·76
	1884	239	7·74
	Mean of 3 years	217	7·25
Western Australia ...	1882	53	17·44
	1883	59	18·89
	1884	51	15·78
	Mean of 3 years	54	17·37
Tasmania ...	1882	87	7·21
	1883	106	8·53
	1884	90	7·01
	Mean of 3 years	94	7·58
New Zealand ...	1882	505	9·92
	1883	494	9·33
	1884	548	9·92
	Mean of 3 years	516	9·72

Violent deaths in Victoria and European countries.

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

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

Countries.	Proportion to 100,000 Living of Deaths from—			
	Violence of all kinds.	Accident and Negligence.	Homicide.	Suicide.
Victoria ...	107·8	93·5	2·4	11·9
Switzerland ...	92·4	68·9	3·9	19·6
United Kingdom†	77·5	69·7	1·6	6·2
England and Wales ...	75·7	66·7	1·7	7·3
Scotland ...	72·0	68·2	·1	3·7
Ireland ...	39·1	35·3	1·7	2·1
Norway ...	72·4	64·1	1·3	7·0
Finland ...	62·6	55·7	3·5	3·4
Sweden ...	61·9	50·7	2·0	9·2
Prussia ...	61·6	46·1	2·1	13·4
Bavaria ...	51·9	37·7	3·9	10·3
Belgium ...	48·3	38·5	1·6	8·2
Austria ...	47·1	...	...	11·3
Italy ...	24·0	14·9	5·4	3·7

676. 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-seven and a half years ended with 30th June, 1886, embracing the whole period of the existence of railways in Victoria:—

DEATHS FROM RAILWAY ACCIDENTS, 1859 TO 1885-6.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own misconduct or want of caution.	Total.	From causes beyond their own control.	From their own misconduct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868 ...	37	...	...	...	3	19	22	1	14	...
1869 ...	4	...	...	...	...	2	2	...	1	1
1870 ...	2	...	...	...	...	1	1	...	1	...
1871 ...	6	...	...	...	...	2	2	...	2	2
1872 ...	3	...	...	...	...	...	...	...	3	...
1873 ...	...	...	...	...	...	...	...	...	...	...
1874 ...	10	...	...	...	4	...	4	1	4	1
1875 ...	11	...	...	...	...	6	6	...	4	1
1876 ...	23	...	...	...	3	10	13	2	6	2
1877 ...	22	...	1	1	3	10	13	...	8	...
1878 ...	16	...	...	...	...	7	7	2	6	1
1879 ...	21	...	...	...	1	8	9	2	9	1
1880 ...	18	...	...	...	...	7	7	3	6	2
1881 ...	34	4	4	8	...	14	14	3	8	1
1882 ...	38	1	1	2	...	22	22	3	9	2
1883 ...	32	...	5	5	...	10	10	5	10	2
1884 (six months)...	10	1	...	1	4	2	6	...	3	...
1884-5 ...	36	...	1	1	...	12	12	7	14	2
1885-6, ...	38	...	1	1	1	15	16	5	14	2
Total killed ...	361	6	13	19	19	147	166	34	122	20

* The proportions have been calculated upon the occurrences in Victoria during the ten years, 1871 to 1880, in Norway during 1873, in Scotland during 1875, in Finland during 1874, in Prussia during 1875, and in other countries during 1876. The figures in the last column in a few instances differ from those of Dr. Morselli (*ante*), which have been calculated over a series of years.

† Including the shipping.

PERSONS INJURED BY RAILWAY ACCIDENTS, 1859 TO 1885-6.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own misconduct or want of caution.	Total.	From causes beyond their own control.	From their own misconduct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868 ...	84	22	2	24	5	45	50	1	7	2
1869 ...	...	...	...	...	...	...	...	...	...	...
1870 ...	4	...	...	...	4	...	4	...	...	...
1871 ...	3	...	...	...	...	1	1	...	1	1
1872 ...	32	28	2	30	1	1	2	...	...	...
1873 ...	1	...	...	...	...	1	1	...	...	...
1874 ...	1	...	...	...	...	1	1	...	...	...
1875 ...	8	...	...	...	6	1	7	...	1	...
1876 ...	27	1	1	2	4	15	19	...	5	1
1877 ...	49	36	...	36	3	5	8	1	2	2
1878 ...	40	22	3	25	6	5	11	...	1	3
1879 ...	45	7	2	9	11	20	31	3	1	1
1880 ...	20	5	...	5	1	7	8	2	3	2
1881 ...	64	46	4	50	1	10	11	...	2	1
1882 ...	261	210	5	215	13	25	38	1	2	5
1883 ...	101	67	8	75	7	12	19	2	1	4
1884 (six months) ...	90	44	9	53	10	21	31	2	1	3
1884-5 ...	116	13	23	36	10	46	56	5	9	10
1885-6 ...	191	3	33	36	17	101	118	6	4	27
Total injured ...	1137	504	92	596	99	317	416	23	40	62

Railway
passengers
and ser-
vants killed
and injured

677. It will be observed that, in the whole period of twenty-seven and a half years, 361 persons were killed and 1,137 were injured on the State lines of railway, and that, exclusive of trespassers, persons crossing the lines, &c., 160 of the former and 409 of the latter met their death or injury in consequence of their own misconduct or want of caution. Of the persons killed throughout the period, 19 were passengers, and as many as 166 railway or contractors' servants; 13 of the former, and 147 of the latter, having suffered in consequence of their own carelessness. The passengers injured numbered 596, and the railway servants 416; as many as 317 of the latter, but only 92 of the former, suffered from their own action. At crossings 34 persons were killed, and 23 injured. As many as 122 trespassers were killed, no less than 28 being in the last 2 years; these no doubt included persons who committed suicide by placing themselves in the way of trains. The trespassers injured were equal in number to about a third of those killed.

Mining
accidents.

678. In the twelve years ended with 1885, embracing the whole period during which the Regulation and Inspection of Mines and Machinery Statutes* have been in operation, 713 persons lost their

* 37 Vict. No. 480, 41 Vict. No. 583, 45 Vict. No. 719, and 47 Vict. No. 783.

lives, and 1,632 persons were injured, from accidents connected with mining operations. The following were the numbers in each year and their proportion to the number of miners at work :—

DEATHS AND INJURIES FROM MINING ACCIDENTS, 1874 TO 1885.

Year.	Average Number of Miners at work.	Number of Persons—			Numbers per 1,000 Miners at work—		
		Killed.	Injured.	Total.	Killed.	Injured.	Total.
1874	46,512	90	245	335	1.93	5.27	7.20
1875	42,058	83	217	300	1.97	5.16	7.13
1876	41,531	55	170	225	1.32	4.10	5.42
1877	38,860	64	154	218	1.65	3.96	5.61
1878	37,212	40	106	146	1.07	2.85	3.92
1879	37,195	48	112	160	1.29	3.01	4.30
1880	38,076	50	89	139	1.31	2.34	3.65
1881	38,436	72	108	180	1.87	2.81	4.68
1882	37,446	71	130	201	1.90	3.47	5.37
1883	33,927	59	128	187	1.74	3.77	5.51
1884	29,182	41	106	147	1.40	3.63	5.03
1885	27,033	40	67	107	1.48	2.48	3.96
Means	37,289	59	136	195	1.58	3.65	5.23

679. In 1885, fatal mining accidents numbered 1 less than in the previous year, and were much below the average. In comparison with earlier years, the persons killed and injured in and in connexion with mines have much diminished both in numbers and in proportion to the miners at work. Mining accidents, 1885.

680. According to the average of the twelve years to which reference is made, 1 miner in every 632 loses his life annually. In 1885 the proportion was 1 in 675. These proportions contrast favorably with the proportion of fatal accidents in the metalliferous mines of Great Britain and Ireland, where, according to the report of Her Majesty's Inspectors of Mines for 1883, 1 person in every 584 employed in and about mines lost his life by accident during the year, and 1 in every 607 during the ten years 1874 to 1883. This is exclusive of accidents in coal mines, in respect to which the proportion of fatal accidents is much higher. Mining accidents in Victoria and England.

681. It appears by the following table that, in the twelve years named, 1,143, or 49 per cent., of the mining accidents in Victoria were caused by the fall of earth or materials; 457, or 19 per cent., by falling down shafts, cage accidents, &c.; and 280, or 12 per cent., by explosions, principally of blasting charges :— Causes of mining accidents.

CAUSES OF MINING ACCIDENTS, 1874 TO 1885.

Nature of Accident.	Number of Persons—		
	Killed.	Injured.	Total.
Fall of earth or rock underground	279	515	794
" " on surface	98	73	171
" materials down shafts, passes, &c.	37	139	176
" " winzes, &c.	2	...	2
Falling down shafts	102	141	243
" " winzes, shoots, &c.	15	64	79
Cage accidents	43	92	135
Timber accidents	14	19	33
Truck accidents	5	40	45
Machinery in motion	17	66	83
Explosion of charges of gunpowder	16	121	137
" " guncotton	1	10	11
" " nitro-glycerine compounds	18	51	69
" stored explosives	6	28	34
" boilers	1	5	6
" fire damp	1	22	23
Foul air	9	...	9
Flooding of mines	23	...	23
Undescribed	26	246	272
Total	713	1,632	2,345

Causes of death of octogenarians.

682. The number of deaths of persons over 80 years of age, and their exact ages at death, have been already quoted for each of the years 1882 to 1885, and for the previous eleven years.* The following table shows the causes of death of these persons:—

CAUSES OF DEATH OF OCTOGENARIANS, 1871 TO 1885.

Causes of Death.	Year 1885.		Year 1884.		Year 1883.		Year 1882.		Eleven Years ended with 1881.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Quinsy ... ..	...	...	...	...	...	...	...	...	...	1
Diphtheria ... ..	...	...	...	...	...	...	1	...	...	...
Typhoid Fever, &c.	1	...	3	...	...	1	...	...	3	2
Erysipelas	1	...	1	...	...	1	3	...	3	7
Carbuncle, Boil ... ..	...	...	...	...	...	...	...	1	3	2
Influenza, Coryza, Catarrh	2	1	1	...	...	...	2	1	5	11
Dysentery and Diarrhœa... ..	2	5	10	8	11	8	8	9	51	36
Cholera ... ..	...	...	...	...	...	...	...	...	6	1
Rheumatism	1	...	1	...	1	1	1	1	7	4
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	4	...

* See table following paragraph 597 ante.

CAUSES OF DEATH OF OCTOGENARIANS, 1871 TO 1885—continued.

Causes of Deaths.	Year 1885.		Year 1884.		Year 1883.		Year 1882.		Eleven Years ended with 1881.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Privation... ..	...	...	...	...	...	...	1	...	3	...
Scurvy ... ..	...	...	...	...	...	...	...	...	1	...
Intemperance ... ..	...	...	...	...	...	...	...	...	2	1
Hydatid ... ..	...	...	...	...	...	...	...	...	1	...
Gout	1	...	...	1	1	...	...	...	2	...
Dropsy	2	...	2	2	...	4	2	3	20	18
Cancer	8	1	5	3	4	3	8	3	35	13
Tumor	1	1	...	...	...	...	1	...	...	3
Mortification	3	1	...	...	...	1	1	...	9	3
Phthisis ... ..	...	...	1	...	...	1	1	1	3	3
Abscess, &c. ... ..	...	...	...	...	...	...	...	...	1	...
Brain Diseases, &c.	27	17	22	17	19	13	16	11	136	103
Heart Diseases, &c.	19	12	18	10	11	10	9	6	66	46
Lung Diseases, &c.	42	31	29	23	27	25	42	25	183	116
Stomach Diseases, &c.	14	6	10	5	2	5	6	4	37	21
Kidney Diseases, &c.	13	...	7	1	7	3	7	1	47	1
Gennetic Diseases ... ..	...	1	1	...	...	...	...	...	...	1
Skin Diseases, &c. ... ..	...	...	...	...	...	...	...	...	4	2
Old Age	150	117	105	82	113	77	105	90	631	538
Accidents	2	4	5	4	2	4	6	4	22	18
Suicide ... ..	...	1	...	1	...	...	...	...	4	...
Unspecified causes ... ..	...	...	...	...	...	...	...	...	2	...
Total	289	198	221	157	198	157	220	160	1,291	951

683. It will be noticed that during the fifteen years referred to, in the case of more than half of both the males and females, no complaint was set down except old age. Little is to be learnt from such a vague definition, and it is much to be wished that medical men would endeavour to describe the causes of death with more precision. Of the remainder, over two-sevenths of both sexes died of diseases of the organs of respiration, chiefly pneumonia and bronchitis, and about one-fifth died of affections of the brain and nerves.

Complaints most fatal to octogenarians—1871-85.

684. Elaborate tables showing the occupations at death of males at various ages in Melbourne, in the extra-metropolitan towns, and in the extra-urban district, were published in the Statistical Register of Victoria for 1883, and statements based upon these have since been given in the *Victorian Year-Book*. In the following table the occupations are placed in the order of fatality, the number of persons following the different occupations at the time of the last census being compared with the average number following the same occupations who died annually in the three years embracing the census year (1881), and the year immediately succeeding and following it.—

Occupations at death in order of fatality.

OCCUPATIONS OF ADULT MALES AT DEATH IN ORDER OF FATALITY.

Order of Fatality.	Occupations.	Annual Deaths of Males over 20 per 1,000 Living.
1	Labourers (branch undefined) *	39·54
2	Dyers, scourers	36·04
3	Ship—masters, officers, seamen, servants	35·08
4	Engineers, engine-drivers, stokers, firemen (undefined) † ...	29·90
5	Hotel-keepers, beer and colonial wine sellers	29·66
6	Horsebreakers, grooms (not domestic servants)... ..	28·11
7	Chemists and druggists	27·29
8	Bricklayers, masons, slaters, plasterers	25·65
9	Tailors, clothes dealers, outfitters	25·43
10	Hawkers, pedlers	24·99
11	Lawyers	24·97
12	Sail, tent, tarpaulin—makers... ..	24·87
13	Turners	23·26
14	Hairdressers, wigmakers	23·19
15	Medical men (including irregular practitioners)	23·07
16	Music-masters, musicians, vocalists	22·78
17	Shipbuilders, shipwrights	22·65
18	Clerks—bank, commercial, and undefined ‡	22·50
19	Coopers	22·29
20	Architects	21·10
21	Hatters, capmakers... ..	20·94
22	Wine, spirit—merchants	20·83
23	Furniture makers, cabinetmakers, upholsterers	20·43
24	Shopkeepers, pawnbrokers, and other general dealers	20·32
25	Land surveyors and assistants	20·20
26	Painters, paperhangers, plumbers, glaziers	19·80
27	Carpenters, joiners	19·08
28	Watch, clock—makers, and jewellers, &c.	18·96
29	Auctioneers, appraisers, valuers	18·74
30	Brick, pottery, china, earthenware—makers	18·17
31	Clergy (including irregular clergy)	18·10
32	Bakers, confectioners	17·68
33	Gingerbeer, aërated waters, cordial—manufacturers	17·54
34	Grocers, tea dealers	17·22
35	Miners	17·16
36	Boot, shoe—makers... ..	17·08
37	Fishermen... ..	16·63
38	Brewers, maltsters	16·57
39	Builders, contractors	16·42
40	Saddlers, whipmakers	16·08
41	Brokers, commission agents	16·02
42	Drapers, mercers, warehousemen, and assistants	15·91
43	Blacksmiths, whitesmiths	15·74
44	Coach, omnibus, cab—proprietors, drivers	15·64
45	Wheelwrights	15·54
46	Capitalists, merchants	15·32
47	Butchers	15·14
48	Charcoal burners	15·01
49	Fishmongers, oyster dealers	14·93
50	School masters, teachers, tutors	14·29
51	Iron founders, workers	13·95
52	Greengrocers, fruiterers	13·85

* See also Pastoral labourers, line 70; Store labourers, line 72; Agricultural labourers, line 74; Road and railway labourers, line 79, &c.

† See also Railway engine-drivers, &c., line 73, and Mechanical engineers, &c., line 76.

‡ See also Law clerks, line 58; Government clerks, line 61; and Railway clerks, lines 74.

OCCUPATIONS OF ADULT MALES AT DEATH, ETC.—*continued.*

Order of Fatality.	Occupations.	Annual Deaths of Males over 20 per 1,000 Living.
53	Ironmongers, hardware dealers	13·62
54	Printers, compositors	13·50
55	Commercial travellers, salesmen	13·40
56	Sawyers, sawmill owners	13·28
57	Cowkeepers, dairymen, milksellers	13·16
58	Law clerks	12·90
59	Servants	12·88
60	Quarrymen, stone cutters, dressers (not masons)	12·84
61	Public officers, civil servants, Government clerks	12·61
62	Police	12·40
63	Booksellers, stationers, news agents, vendors	12·37
64	Tin, zinc—workers	12·01
65	Draymen, carriers, carters	11·38
66	Corn, flour, meal—merchants, dealers, and millers	11·29
67	Tobacco manufacturers, tobacconists	11·11
68	Photographers	10·99
69	Carriage, perambulator—makers, dealers	10·75
70	Engaged in pastoral pursuits... ..	10·39
71	Fencers, hurdle makers, splitters	10·23
72	Store labourers, storemen, and others connected with storage	10·05
73	Railway engine-drivers, stokers, &c.	9·68
74	{ Engaged in agricultural pursuits	9·61
	{ Railway officers, clerks, station-masters	9·61
75	Firewood—dealers, choppers... ..	9·40
76	Mechanical engineers, engine and machine workers, agents, and dealers	9·01
77	Fellmongers, tanners, curriers, and leather manufacturers	8·12
78	Newspaper proprietors, editors, publishers	7·69
79	Road, railway—labourers, navvies, excavators	5·24
80	Land, house—agents, proprietors	2·38
	Total	17·56

685. It should be mentioned that the comparison between the numbers returned at the census and the numbers dying is not entirely fair, as the occupations of the former being returned by the persons themselves are likely to be defined more exactly than those of the latter, which must necessarily be returned by others. This will have the effect of unduly exaggerating the mortality of the more comprehensive groups and reducing that of the others. Results not strictly accurate.

686. According to this table, the general mortality presses more hardly upon labourers (branch undefined) than upon followers of any other occupation; but this is an instance in which fallacious results are doubtless arrived at in consequence of the difference in the manner of describing the occupation during life and after death. Many of the 2,216 undefined labourers who died would probably be returned at the census under the special industry in connexion with which they worked: e.g., store labourers, farm or station labourers, road or railway Fatality from all causes of different occupations.

labourers, &c. The fact of their being entered simply as "labourers" in the death registers would of course swell the mortality under the head of labourers undefined (line 1), and to the same extent would lower that under the other heads (lines 70, 72, 74, and 79). The same remark applies to engineers, engine-drivers, stokers, &c., undefined (line 4), many of whom at the census would probably be returned in connexion with railways or mechanical engineering, under both of which heads an exceedingly low mortality is shown by the figures (lines 73 and 76). In reference to the high mortality amongst seamen (line 3), it must be remembered that the population with which it is compared is a fluctuating one, and may perhaps on the average be larger than it was at the census; and, moreover, that ships often leave sick seamen behind them here to be attended to in hospital or otherwise. The mortality really appears to be high amongst hotel-keepers, horse-breakers and grooms, chemists and druggists, bricklayers and masons, tailors, and hawkers (lines 5 to 10). Of members of the learned professions, the greatest mortality appears to attend lawyers (line 11); medical men (line 15) being somewhat less, and clergymen (line 31) very much less, hardly pressed upon. The mortality of clerks (line 18) appears to be high, but this may be swelled by the inclusion of law clerks, who should be grouped as such (line 58), Government clerks, who should be grouped with public officers (line 61), and railway clerks, who should be grouped with railway officers (line 74), in reference to all of whom a very low mortality is shown. The mortality of the police (line 62) is low, but it must be remembered that the retiring age of policemen is 55 years, or sooner if incapacitated from active duty, and it is probable that many who have been in the police force are not attached to it at the time of their death. The occupations in which the mortality is lowest appear to be land and house proprietors (line 80), newspaper proprietors and editors (line 78), and fellmongers and tanners (line 77); but the numbers in these groups are small, and the results consequently of but doubtful value.

Occupations
at death
in classes.

687. Combining the occupations in classes, and arranging the results in order of fatality, the respective groups stand as follow:—

OCCUPATIONS (IN CLASSES) OF ADULT MALES AT DEATH IN ORDER OF FATALITY.

			Annual Deaths of Males over 20 per 1,000 Living.
1.	Engaged in industrial pursuits	...	21·89
2.	" entertaining and serving	...	20·42
3.	" commercial pursuits	...	17·62
4.	" professional pursuits	...	16·51
5.	" food and drinks	...	15·53
6.	" books and literature	...	12·48
7.	" on land and with animals	...	9·96

688. Phthisis being the most fatal of all complaints in Victoria, as has been already stated,* the occupations of adult males dying from that disease per 1,000 living have been similarly grouped with the following result :—

OCCUPATIONS OF ADULT MALES AT DEATH FROM PHTHISIS,
IN ORDER OF FATALITY.

			Annual Deaths of Males over 20 per 1,000 Living.
1.	Engaged in commercial pursuits	... ..	3·91
6.	„ books and literature	... ..	3·68
2.	„ professional pursuits	... ..	3·42
3.	„ entertaining and serving	... ..	3·28
4.	„ industrial pursuits	... ..	3·23
5.	„ food and drinks	... ..	2·05
7.	„ land and animals	... ..	·93

Occupations
at death
from
phthisis.

689. Commercial and literary pursuits appear to be favorable to the development of phthisis, as the mortality of persons engaged in the former rises from the third place, and that of the latter rises from the sixth place in the previous list, to the first and second places respectively in this. Professional pursuits also rise in the phthisis as compared with the previous list, but industrial pursuits, and pursuits connected with entertaining and serving, and with food and drinks, fall. Rural pursuits occupy the lowest place in both lists, and therefore may be considered to be conducive not only to immunity from phthisis but to general longevity.

Occupations
in phthisis
and general
list com-
pared.

690. There are 38 general hospitals in Victoria, 9 of which are also benevolent asylums. The total number of cases of sickness treated in these institutions during the year ended 30th June, 1885, was 14,870, and the number of deaths was 1,653. In the previous twelve months the cases of sickness treated numbered 14,293, and the deaths 1,551. There was thus 1 death to every 9·0 cases of sickness treated in hospitals during the year 1885, as against 1 death to every 9·2 cases of sickness treated therein during the previous year. 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 the year ended 30th June, 1885, and the proportion of deaths to cases in each hospital during that and the previous year :—

Sickness and
deaths in
general
hospitals.

* See paragraph 625 ante.

SICKNESS AND MORTALITY IN GENERAL HOSPITALS.

Name of Hospital.	Year ended 30th June, 1885.			Percentage of Mortality to Cases treated, Year ended 30th June, 1884.
	Number of Cases treated.	Number of Deaths.	Percentage of Mortality to Cases treated.	
Alexandra	30	2	6.67	13.64
Amherst	267	20	7.49	9.72
Ararat†	340	28	8.24	3.67
Ballarat	965	106	10.98	11.80
Beechworth	480	46	9.58	9.43
Belfast †	56	3	5.36	6.82
Bendigo	1,236	125	10.11	11.54
Castlemaine	630	57	9.05	7.81
Clunes	169	14	8.28	4.43
Colac	57	3	5.26	14.71
Creswick	279	17	6.09	6.55
Daylesford†	179	24	13.41	11.92
Dunolly	313	25	7.99	9.34
Echuca	183	22	12.02	6.74
Geelong†	825	79	9.58	10.80
Hamilton†	233	19	8.15	8.96
Heathcote	63	9	14.29	8.86
Horsham	240	28	11.67	8.90
Inglewood	508	34	6.69	8.81
Kilmore	129	13	10.08	9.23
Kyneton	465	27	5.81	2.89
Maldon†	52	9	17.31	11.47
Mansfield	106	9	8.49	...
Maryborough	362	28	7.73	7.79
Melbourne	3,479	591	16.99	15.80
Melbourne (Alfred)	1,186	130	10.96	11.22
Melbourne (Austin)*	98	20	20.41	25.96
Melbourne (Homœopathic)	133	7	5.26	10.24
Mooroopna	344	26	7.56	10.64
Nhill	57	4	7.02	7.14
Pleasant Creek (Stawell)†	224	25	11.16	8.37
Portland†	47	4	8.51	19.15
Sale	304	38	12.50	11.66
St. Arnaud	292	20	6.85	8.68
Swan Hill	120	7	5.83	7.22
Wangaratta	204	19	9.31	4.63
Warrnambool†	113	11	9.73	8.79
Wood's Point	102	4	3.92	4.26
Total	14,870	1,653	11.12	10.85

Highest and lowest death rates.

691. In proportion to the cases treated in 1884-5, the greatest mortality occurred in the Austin (Melbourne),* Maldon, Melbourne, and Heathcote Hospitals; and the lowest in the Wood's Point, Melbourne (Homœopathic), Colac, Belfast, and Swan Hill Hospitals. In the previous year the rate of mortality was highest in the Austin (Melbourne),* Portland, Melbourne, Colac, and Alexandra Hospitals; and the least in the Mansfield (where there were no deaths), and in the Kyneton, Ararat, Wood's Point, Clunes, and Wangaratta Hospitals.

Sickness and deaths in hospital for women.

692. The patients treated in the Hospital for Diseases of Women and Children attached to the Lying-in Hospital numbered 360 during

* For incurables.

† These institutions are also Benevolent Asylums.

the year 1883-4, and 253 in 1884-5. The deaths in the same institution numbered 20 in the former, and 11 in the latter year. Therefore, 1 patient in 18 died in 1883-4, and 1 in 23 in 1884-5.

693. In the Melbourne Lying-in Hospital 583 women were confined in 1883-4, and 564 in 1884-5. Nineteen died in the former period, and 33 in the latter. Thus, 1 woman in 31 died in 1883-4, and 1 woman in 17 in 1884-5. From the founding of the institution to the end of June, 1885, 11,885 women were accouched therein,* of whom 205 died, or 1 death to every 58 confinements.†

Deaths of
mothers in
Lying-in
Hospital.

694. The infants born alive in the Lying-in Hospital numbered 542 in the year 1883-4, and 533 during the year 1884-5, and of these, 50 in each year died before being taken from the institution; thus 1 infant in 11 died in both years.‡

Deaths of
infants in
Lying-in
Hospital.

695. In the Melbourne Hospital for Sick Children 566 cases were treated, and 26 deaths occurred, in the year 1883-4; 407 cases were treated, and 35 deaths occurred, during the year 1884-5. These numbers furnish proportions of 1 death to every 22 patients in the former, and 1 death to every 12 patients in the latter, period.

Sickness and
deaths in
Children's
Hospital.

696. Cases of sickness in benevolent asylums (exclusive of Melbourne Immigrants' Home) numbered 1,826 in 1883-4, and 1,959 in the year 1884-5; deaths numbered 204 and 217. The deaths were thus to the cases treated in the proportion of 1 to every 9 in both years.

Sickness and
deaths in
benevolent
asylums.

697. In the Melbourne Immigrants' Home the cases of sickness in the year 1883-4 amounted to 545, and the deaths to 76, or 1 death to every 7 cases of sickness. In the year 1884-5 the cases of sickness in this institution numbered 460, and the deaths 89, or 1 death to every 5 cases of sickness.

Sickness and
deaths in
Immigrants'
Home.

698. In 1883-4 the cases of sickness in orphan asylums numbered 142, and the deaths 6. In the year ended 30th June, 1884-5, these numbers were 160 and 4 respectively. Thus, in 1883-4, 1 death occurred to every 24 cases of sickness, and, in 1884-5, 1 death to every 40 cases of sickness.

Sickness and
deaths in
orphan
asylums.

699. In hospitals for the insane during 1884, the cases of sickness numbered 1,102, and during 1885 they numbered 1,071. The deaths amounted to 209 at the former period, and 223 at the latter, or an average of 1 death to every 5 cases of sickness in both years.

Sickness and
deaths in
lunatic
asylums.

700. In gaols and penal establishments 865 cases of sickness occurred in 1884, and 990 in 1885. The deaths in these two periods respectively were 48 and 71. Thus, 1 death occurred to every 18 cases in 1884, and 1 death to every 14 cases in 1885.

Sickness and
deaths in
gaols.

* Including a few women who were accouched outside the hospital by midwives connected with the institution.

† See paragraph 648 *ante*.

‡ See paragraph 587 *ante*.

Deaths in
public
institutions.

701. Altogether the number of deaths in penal or charitable institutions during 1884-5* was 2,448, being in the proportion of 1 to every 6 deaths which took place in Victoria during the year. The deaths in such institutions both in 1883-4 and 1882-3 were in the proportion of 1 to every 6 deaths; in the first six months of 1882 in the proportion of 1 to every 6 deaths; in 1881 in the proportion of 1 to every $5\frac{1}{6}$ deaths; and in the four years, 1877-80, in that of 1 to every 6 deaths which took place in the whole colony. The following are the names of the institutions and the number of deaths which occurred in each during the year 1884-5:—

DEATHS IN PUBLIC INSTITUTIONS, 1884-5.

	Number of Deaths.
General hospitals	1,653
Hospital for Diseases of Women and Children ...	11
Lying-in Hospital	83†
Hospital for Sick Children	35
Benevolent asylums	217
Melbourne Immigrants' Home	89
Orphan asylums	4
Eye and Ear Hospital	1
Victorian Asylum and School for the Blind ...	1
Hospitals for the insane	223
Female refuges	17‡
Victorian Infant Asylum	8
Industrial and reformatory schools	35§
Gaols (exclusive of Police gaols)	69
Penal establishments	2
Total	2,448

NOTE.—In 1884-5 no death occurred in the Deaf and Dumb Institution.

Deaths in
public
institutions
in England.

702. In England and Wales during 1882, 1 out of every 10 deaths registered occurred in a workhouse, hospital, or lunatic asylum. Of such deaths, 63 per cent. occurred in the first of these institutions, 28 per cent. in the second, and 9 per cent. in the third.

Sick and
infirm.

703. The householder's schedule used at the census of 1881 contained a column headed "Health," respecting which an instruction was given to the effect that, if any person was unable to follow his usual occupation by reason of illness or accident, or was afflicted with deafmuteism, blindness, lunacy, idiocy, epilepsy, or leprosy, || the name of such infirmity should be entered. As the result of this inquiry, the following information was obtained:—

* The figures relating to hospitals for the insane, industrial and reformatory schools, gaols, and penal establishments are for the year ended 31st December, and those relating to the other institutions are for the year ended 30th June, 1884.

† This includes the deaths of 50 infants born in the institution.

‡ This includes the deaths of 10 infants in the Female Refuge, Madeline-street.

§ Including deaths of boarded-out and licensed children, but exclusive of 3 who died in hospitals, and therefore included amongst the deaths of hospital patients.

|| No case of leprosy was returned either in 1871 or 1881. It is known that this infirmity existed at both periods, to a small extent, among the Chinese; but the sub-enumerators did not distinguish it from ordinary sickness.

SICKNESS AND INFIRMITY, 1881.

	Males.	Females.	Total.
Suffering from sickness ...	7,381	5,822	13,203
" " accident ...	1,162	202	1,364
" " deafmuteism ...	168	119	287
" " blindness ...	502	240	742
" " lunacy ...	1,590	1,243	2,833
" " idiocy ...	108	53	161
" " epilepsy ...	176	114	290
" " lameness, mutilation, deformity, &c.*	83	49	132
Total ...	11,170	7,842	19,012

704. The total numbers furnish a proportion of 221 persons suffering from infirmity in every 10,000 of the population, of 247 infirm males in every 10,000 males, of 191 infirm females in every 10,000 females. Proportion of infirm to population.

705. The sick when the census of 1881 was taken were found to be in the proportion of 153, and those laid up in consequence of accidents in that of 16, to every 10,000 of the population. The two combined, representing those entirely disabled for the time being, but not as a rule permanently affected, were thus in the proportion of 169 to every 10,000 living, or 1 in 59. A similar combination gives a proportion of 189 disabled males in every 10,000 males living, or 1 in 53; of 147 disabled females in every 10,000 females living, or 1 in 68. Sickness and accidents.

706. All the Australasian colonies except New South Wales obtained returns of sickness and accidents in 1881, those for New Zealand, however, applying only to persons over 15 years of age, and therefore not comparable with the others. Omitting the two colonies named, Queensland showed the smallest proportion of persons laid up from these causes, and South Australia and Tasmania the largest, next to which was Victoria. The following are the proportions, the colonies being arranged in order, the one with the lowest ratio of disablement being placed first, and that with the highest last:— Disablement in Australasian colonies.

SICKNESS AND ACCIDENTS IN AUSTRALASIAN COLONIES, 1881.

	Persons.
1. Queensland had 1 person disabled from sickness or accident in every	211
2. Western Australia " " " " " "	68
3. Victoria " " " " " "	59
4. { South Australia " " " " " "	58
{ Tasmania " " " " " "	58

707. New Zealand, as has just been stated, returned those disabled persons only who were over 15 years of age. These were in the very low proportion of 1 in 89 of the population at the same period of life. A proportion calculated upon the Victorian returns at a similar age gives 1 disabled person in 42. Disablement in New Zealand.

* The information in this line was not asked for, and is no doubt incomplete.

Permanent infirmities.

708. The deafmutes, the blind, the lunatics, the idiots, and the crippled, maimed, and deformed persons represent those having some defect or injury which is generally permanent, but which often does not disable them from following some description of labour, and does not always prevent them from earning their own livelihood, although no doubt in most cases it seriously affects their usefulness to the community. These numbered 4,445, viz., 2,627 males and 1,818 females, or 1 person in every 194, 1 male in every 172, and 1 female in every 226.

Deafmuteism.

709. The deaf and dumb were in the proportion of 3·33 per 10,000 persons living; of 3·72 deaf and dumb males per 10,000 males, and of 2·90 deaf and dumb females per 10,000 females. These proportions, stated in other words, are 1 deafmute in 3,005 of the total population, 1 in 2,691 of the males, and 1 in 3,448 of the females.

Deafmuteism in England and Wales.

710. The proportion of deafmutes to the total number of persons living is not nearly so high in Victoria as in England and Wales, where, according to the returns of the census of 1881, there was 1 deafmute in every 1,746 of the population; which proportion was about the same as in 1871, when 1 in every 1,748 of the population of England and Wales was a deafmute.*

Deafmuteism in Australasian colonies.

711. Five of the colonies of this group obtained returns of deafmuteism in 1881, those which did not do so being New South Wales and Queensland. In proportion to population, this affliction was found to be more common in Victoria than in New Zealand, Western Australia, or South Australia, but much less so than in Tasmania, in which the proportion was higher than that in England and Wales. The following are the proportions in the five colonies named, which are arranged in order, the colony in which deafmuteism is least prevalent being placed first, and the others in succession :—

DEAFMUTEISM IN AUSTRALASIAN COLONIES, 1881.

1. New Zealand had 1 deafmute in every	...	4,298 persons.
2. Western Australia	”	4,244 ”
3. South Australia	”	3,448 ”
4. Victoria	”	3,005 ”
5. Tasmania	”	1,837 ”

Blindness.

712. Blind persons in Victoria were found in 1881 to be in the proportion of 8·60 per 10,000 persons living; blind males in that of 11·10 to every 10,000 males; blind females in that of 5·85 to every 10,000 females. There was thus 1 blind person in every 1,162 of mixed sexes, or 1 blind male in every 901 males, and 1 blind female in every 1,709 females.

* See General Report on the Census of England and Wales, 1881, page 63. London: Eyre and Spottiswoode, 1883.

713. In England and Wales, according to the census of 1881, the proportion of blind persons to the total population was 1 in 1,138, or higher than it has ever been in Victoria; not, however, so high as the proportion obtaining in England and Wales at the three previous censuses—for in 1871 it was 1 in 1,052; in 1861, 1 in 1,037; and in 1851 as high as 1 in 979.*

Blindness in England and Wales.

714. Returns of blindness were obtained by the same five colonies which obtained returns of deafmuteism. It was found that in New Zealand the proportion of blind persons was extremely low, and in South Australia it was lower than in Victoria, but in Western Australia and Tasmania it was enormously high—much higher than in England and Wales. The following are the proportions in these colonies, the colony in which the proportion was lowest being placed first, and the rest in order:—

Blindness in Australasian colonies.

BLINDNESS IN AUSTRALASIAN COLONIES, 1881.

1. New Zealand had 1 blind person in every	...	3,550 persons.
2. South Australia	”	1,417 ”
3. Victoria	”	1,162 ”
4. Western Australia	”	725 ”
5. Tasmania	”	625 ”

715. Lunatics in Victoria were in the proportion of 32·85 per 10,000 of the population, viz., 35·17 male lunatics per 10,000 males living, and 30·30 female lunatics per 10,000 females living. Thus 1 person in every 304, 1 male in every 284, 1 female in every 330, was a lunatic.

Lunacy

716. From whatever cause, lunacy appears to be much more rife in Victoria than in England and Wales. When the census of 1881 was taken, the proportion in the latter was 1 lunatic in every 502 of the population, which is a much lower proportion than that found to exist in Victoria at the same census.†

Lunacy in England and Wales.

717. The only Australasian colonies besides Victoria which collected complete returns of lunacy apart from idiocy were New Zealand, South Australia, and Tasmania, in all of which the proportion was lower than in this colony, as will be seen by the following figures:—

Lunacy in Australasian colonies.

LUNACY IN AUSTRALASIAN COLONIES, 1881.

1. New Zealand had 1 lunatic in every	...	437 persons.
2. South Australia	”	436 ”
3. Tasmania	”	334 ”
4. Victoria	”	304 ”

718. The census returns of Queensland contain a return of the number of lunatics in asylums, but give no account of those in private houses, gaols, &c. The number was 563, or 1 in 379 of the population, which is a higher proportion than that which the total number of lunatics

Lunacy in Queensland

* See General Report on the Census of England and Wales, 1881, page 60.
 † See General Report on the Census of England and Wales, 1881, page 67.

bore to the population of New Zealand or South Australia, but not so high as that which obtained in the other two colonies furnishing returns.

Idiocy.

719. Persons returned as idiots in this colony were in the proportion of 1·87 per 10,000 of the population ; 2·38 idiot males per 10,000 males, 1·29 idiot females per 10,000 females. These proportions may be otherwise stated as 1 idiot in every 5,356 persons, 1 idiot male in every 4,186 males, 1 idiot female in every 7,741 females.

Idiocy in
England
and Wales.

720. In England and Wales idiots were combined with imbeciles at the census of 1881, therefore comparison with Victoria, where idiots alone were returned, may not be fair. The proportion of idiots and imbeciles to the population of England and Wales was a very high one, viz., 1 person so afflicted in every 794 persons living.*

Idiocy in
Austral-
asian
colonies.

721. Idiocy as distinguished from lunacy was not returned in any colony of the group except Victoria, New Zealand, and Tasmania. In the second of these it was much less prevalent, but in the third much more so than in this colony, as is shown by the following proportions :—

IDIOTS IN AUSTRALASIAN COLONIES, 1881.

1. New Zealand had 1 idiot in every ...	...	...	8,447 persons.
2. Victoria	"	"	5,356 "
3. Tasmania	"	"	1,522 "

Idiocy and
lunacy in
England
and Wales.

722. In England and Wales, according to the census of 1881, the proportion of idiots, imbeciles, and lunatics to the general population was 1 in 307 ; this, it will be observed, is lower than the ratio which idiots and lunatics bore to the population of Victoria in the same year.

Idiots and
lunatics in
Austral-
asian
colonies.

723. The idiots combined with the lunatics give the following results for four of the Australasian colonies, being all those which obtained the information at the census of 1881 :—

IDIOCY AND LUNACY IN AUSTRALASIAN COLONIES, 1881.

1. New Zealand had 1 idiot or lunatic in every ...	...	...	416 persons.
2. Victoria	"	"	288 "
3. Tasmania	"	"	274 "
4. Western Australia	"	"	259 "

Epilepsy.

724. Epileptic persons were in proportion of 3·36 per 10,000 of the population of Victoria, of 3·89 per 10,000 males, and of 2·78 per 10,000 females ; or, in other words, 1 person in every 2,974, 1 male in every 2,569, 1 female in every 3,599, was subject to attacks of epilepsy.

Epilepsy
in New
Zealand

725. The census of England and Wales does not supply any information on the subject of epilepsy, and the only Australasian colony, except Victoria, which collects such information appears to be New Zealand, in which, according to the census of 1881, the proportion of epileptic persons was 1 in every 2,525 of the population, thereby

* See General Report of the Census of England and Wales, 1881, page 68.

showing a higher ratio of epilepsy than that found to prevail in Victoria.

726. No instruction was given the sub-enumerators at the last census of Victoria to obtain returns of mutilated, crippled, and deformed persons, but the schedules contained particulars respecting 132 such persons. There is no doubt that all were not returned, therefore no comparisons with the numbers of the population will be quoted here ; it is, however, suggested that at future censuses of this colony an attempt should be made to obtain complete returns of the numbers affected in this manner.

Lameness,
mutilation,
deformity,
&c.

727. Of those returned as stated, 5 males were set down as having lost an arm, and 7 a leg ; 1 male and 1 female as having lost a hand ; 5 males as lame, 4 as cripples from birth, 1 as crippled through spine affection, 2 as having a crippled hand, 4 as crippled and sick, and 1 as crippled through accident ; 1 female was returned as having lost the use of her hands by lead poisoning, 1 as deformed in the left foot, 1 simply as deformed, and 1 as crippled and paralysed. The remainder, both males and females, were entered merely as crippled.*

Crippled and
deformed
persons.

728. The number of cases of successful vaccination in 1885 was 20,818; and as the number of births was 29,975, it appears that 69 per cent. of the children born were vaccinated. Part of the remainder are accounted for by death—2,646, or nearly 9 per cent., of those born having died before they were 6 months old. Notwithstanding that an outbreak of small-pox took place in the previous year, and 5 deaths occurred, the proportion of vaccinations in 1885 was much below the average ; in fact the lowest, with one exception, during the last 11 years. In the previous year the vaccinations were equal to about 74 per cent. of the children born ; in 1883, 67 per cent. ; in 1882, 75 per cent. ; in 1881 they even exceeded the births by 100—a circumstance due to the alarm occasioned by an outbreak of small-pox, first in Sydney and subsequently on board vessels arriving at Melbourne, which induced a large number of persons at all ages to be vaccinated ; in 1880 they were equal to about 73 per cent. ; in 1879 and 1878 to 82 per cent. ; in 1877 to 87 per cent. ; in 1876 to 80 per cent. ; and in 1875 to 82 per cent.

Vaccina-
tions.

729. Doubts being, from time to time, raised as to the efficacy of vaccination in preventing, or modifying the effects of small-pox, the following particulars may be interesting ; they have been founded on information given to the Medical Officer of the Local Government Board, by Mr. Marson, surgeon of the Small-pox Hospital, London,

Effects of
vaccination.

* For the ages, occupations, &c., of those suffering from the various descriptions of infirmity, see Government Statist's General Report on the Census of Victoria, 1881. Ferris, Melbourne, 1883.

as the result of his observations made during 25 years in regard to nearly 6,000 cases of post-vaccinal small-pox :—

Cases where the patient—					Percentage of Deaths of Small-pox Patients.
Was stated to have been vaccinated, but had no cicatrix	...	...	...	...	21·75
Had one vaccine cicatrix *	...	...	...	...	7·50
„ two „ cicatrices †	...	...	...	...	4·50
„ three „ „	...	...	...	...	1·75
„ four or more „	...	...	...	...	0·75
Was unvaccinated	...	...	...	...	35·50

Central
Board of
Health.

730. The Victorian Central Board of Health, which consists of a President and nine members, renders important service in devising and carrying into effect measures for the preservation of the public health, and especially in preventing the spread of contagious diseases. The Board meets fortnightly, but the President, who is a salaried officer, and gives his whole time and attention to the duties of his position, is empowered to take all necessary action during the intervals, reporting fully to the Board at its next meeting. The number of Local Boards is 184, who are in constant communication with, and take instructions from the Central Board. Mr. A. P. Akehurst, the President of the Central Board, has written a short account of its work and objects specially for the *Victorian Year-Book*, and this, together with several important circulars issued by the Board, is published in an Appendix near the end of this volume.

Meteorologi-
cal observa-
tions, 1885.

731. The following are the results of meteorological observations taken at different stations throughout the colony during 1885. These places are arranged in the table in the order of their altitude above the level of the sea. The last three are situated in the interior, but the others are on the sea-board. The times at which the observations for mean temperature and mean atmospheric pressure are obtained differ at the various stations; but a correction is applied, in order to make the results equivalent to those which would be derived from hourly observations taken throughout the day and night :—

METEOROLOGICAL OBSERVATIONS AT VARIOUS STATIONS, 1885.

Stations.	Height above Sea-level.	Temperature in the Shade.		
		Max.	Min.	Mean.
Portland	feet. 37·0	100·0	30·0	56·3
Gabo Island	50·0	...	32·0	57·7
Melbourne	91·3	101·6	29·9	57·1
Cape Otway	270·0	91·0	30·0	54·6
Wilson's Promontory	300·0	95·0	40·0	56·1
Echuca	314·0	...	...	...
Sandhurst	701·0	106·0	30·2	58·8
Ballarat	1,438·0	104·0	28·5	53·6

* In cases of the one cicatrix being well marked, the death-rate was 4·25 per cent.; in cases of its being badly marked it was 12 per cent.

† In cases of the two cicatrices being well marked, the death-rate was 2·75 per cent.; in cases of their being badly marked, it was 7·25 per cent.

METEOROLOGICAL OBSERVATIONS AT VARIOUS STATIONS, 1885—
continued.

Stations.	Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Amount of Cloud.
	inches.	No.	inches.	0-1.	0-10.
Portland	30·037	192	33·71	·749	5·0
Gabo Island ...	29·982	110	24·47	·797	5·8
Melbourne	29·996	123	26·94	·709	6·3
Cape Otway	29·805	172	26·99	·839	7·1
Wilson's Promontory	29·674	173	44·60	·766	6·6
Echuca	29·691	58	20·03	...	...
Sandhurst	29·329	114	20·16	·659	4·3
Ballarat	28·565	130	25·65	·726	5·3

732. The following are the results for Melbourne in each of the twenty-two years ended with 1885 :—

Meteorology in Melbourne, 1864 to 1885.

METEOROLOGICAL OBSERVATIONS AT MELBOURNE.—RETURN FOR
TWENTY-TWO YEARS.

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

Year.	Temperature in the Shade.			Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Mean Amount of Cloud.
	Max.	Min.	Mean.					
	°	°	°	inches.	No.	inches.	0-1.	0-10.
1864	96·6	30·5	57·1	29·94	144	27·40	·72	6·1
1865	103·4	30·9	56·5	29·94	119	15·94	·68	5·6
1866	108·2	28·0	57·8	29·95	107	22·41	·70	5·5
1867	108·4	29·7	57·7	29·92	133	25·79	·72	5·7
1868	110·0	27·4	57·1	29·98	120	18·27	·70	5·7
1869	108·4	27·0	57·2	29·94	129	24·59	·71	6·0
1870	109·0	29·6	57·4	29·93	129	33·76	·74	5·8
1871	106·0	32·1	57·7	29·93	125	30·17	·74	5·9
1872	103·3	32·5	57·6	29·92	136	32·52	·74	6·4
1873	102·4	30·2	58·0	29·94	134	25·61	·72	6·0
1874	102·7	29·3	56·6	29·93	134	28·10	·72	6·1
1875	110·4	31·1	56·6	29·89	158	32·87	·72	6·2
1876	110·7	29·0	57·0	29·93	134	24·04	·70	5·8
1877	100·7	31·0	56·7	29·99	124	24·10	·70	5·8
1878	103·4	31·1	57·4	29·90	116	25·36	·71	6·0
1879	106·0	30·5	56·8	29·92	127	19·28	·71	5·8
1880	106·5	29·0	57·8	29·92	147	28·48	·72	6·0
1881	99·9	31·9	57·1	29·97	134	24·08	·68	5·9
1882	110·5	31·5	57·4	29·90	131	22·39	·68	5·6
1883	104·9	31·7	58·0	29·92	130	23·71	·69	5·9
1884	100·7	29·9	56·7	29·94	128	25·85	·71	6·2
1885	101·6	29·9	57·1	30·00	123	26·94	·71	6·3
Means	105·1	30·2	57·2	29·94	130	25·53	·71	5·9

733. It will be noticed that in 1885, according to observations taken at the Melbourne Observatory, the maximum temperature was about

Observations in 1885 compared with means.

3½ degrees, and the minimum temperature about one-third of a degree, below the mean of the maxima and minima in twenty-two years; that the mean temperature was slightly below, and the mean relative humidity about the average, but the mean atmospheric pressure was considerably above the average of the same period; also, that, although rain fell on seven days less than usual, the amount of cloud which prevailed was much above, and the rainfall was nearly 1½ inches above, the average.

Observations in 1885 and former years compared.

734. During the period of twenty-two years a higher temperature than the maximum of 1885 was experienced in seventeen, and a lower one than the minimum in eight, of the previous years; the mean temperature was equalled in three years, and was exceeded in all the other years except seven; the mean atmospheric pressure of 1885 was the highest during the whole period; the number of days on which rain fell was exceeded in all the other years except four; the amount of rainfall, which has been steadily increasing since 1882, was in that year, with one exception, higher than in any year since 1875, whilst in only one previous year was the mean amount of cloud higher than in 1885.

Mean temperature in Melbourne and elsewhere.

735. The mean temperature of Melbourne over a series of years (57·2°) corresponds with that of Bathurst, a town in the interior of New South Wales, situated 2,150 feet above the sea-level, and is about equal to that of Washington (56·9°), Bordeaux (57·0°), Madrid (57·2°), and Marseilles (58·3°). It is lower by 5½ degrees than that of Sydney (62·5°), and lower by 7½ degrees than that of Adelaide (64·6°).*

Mean rainfall in Melbourne and elsewhere.

736. The mean rainfall in Melbourne (25·46in.) corresponds approximately with that of Ventnor in England (25·5in.), Bathurst in New South Wales (25·0in.), and Toulouse in France (24·9in.). It is above that in London (24·0in.), Nottingham (23·7in.), or Paris (22·9in.), is 5 inches above that in Adelaide (20·5in.), but is only about half as much as that in Sydney (50·1in.).*

Fall of snow in Melbourne, 1882.

737. It may be remarked that a fall of snow took place in Melbourne on the 26th July, 1882, on which day the lowest temperature in the shade was 37° and the highest 44°. This is a most unusual occurrence, no other such instance being remembered since the 29th and 30th August, 1849, when snow fell heavily.

Meteorology elsewhere treated on.

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

* The observations, except those for Melbourne and Adelaide, have been taken from a work entitled *Physical Geography and Climate of New South Wales*, by H. C. Russell, F.R.A.S., Government Astronomer of that colony.