ness men, do not place a sufficiently high value upon the labour of those devoted to scientific pursuits. It is not necessary for present purposes to pass in review what science has done for the world; we would merely refer to that branch of science which has to do with the public health and the preservation of human life. A writer in a recent number of an American monthly furnishes facts and figures which seem to show that human life has been steadily gaining in power and duration. According to the inquiries of Ulpianus, a Roman judge, of the time of Alexander Severus, and the practice of the Roman courts, from the third to the sixth century, the average expectation of life for those under twenty years of age was thirty; twenty-eight years was added to those who had already lived from twenty to twenty-five years; from twenty-five to thirty, the expectation was twenty-five years; from fifty to fifty-five, the expectation was thirteen years. At the present time, among all the people of England, including the poor as well as the favored classes, the expectation of life at the age from birth to twenty is for males, over forty-five years, and for females, forty-six years; and at the age from twenty to twenty-five, it is thirty-eight years for males, and about thirty-nine years for females. In the United States, for all classes of males and for all parts of the country, this expectation is, from birth to twenty, forty-seven years, and from twenty to twenty-five it is thirty-nine years and five-eighths. So that there was an increase of longevity, from the beginning of the 3rd century to the end of the 18th of fifty per cent. among the more favored classes. Sixty years later, the life of all classes in England and the United States was fifty per cent longer than that of the best among the Romans of the earlier day.

The most comprehensive record of modern times is that which has been kept in Geneva for the last four hundred years; but there are other records also, which furnish instructive and interesting figures. According to the Geneva record of mortality the expectation of life was, in the 16th century, 21.21 years; in the 17th century 25.67 years; in the 18th century, 33.62 years; in 1801 to 1833, 39.69 years; in 1814 to 1833, 40.68 years. Vital statistics of England and Wales indicate a decrease of mortality to the extent of two-fifths from 1720 to 1820.

Period.	Annual Deaths.	Period.	Annual Deaths.
1720 to 1730	106	1780 to 1790	79
1730 to 1740	104	1790 to 1800	75
1740 to 1750	92	1800 to 1805	70
1750 to 1760	85	1805 to 1810	66
1760 to 1770	84	1810 to 1815	61
1770 to 1780	86	1815 to 1820	62

In the first forty years of the 18th century the average rate of mortality was 340 in 10,000; and in the last forty years, from 1821 to 1860, it was 207 in the same population. In Boston, from 1723 to 1752, the deaths were one in 21.65 of the living; from 1846 to 1865, they were only one in 42.08, or about half as numerous as a hundred years before.

Cities were more unhealthy than they are now. In London, from 1604 to 1682, the births were 699,675, and the burials 964,882, or 137 burials for every 100 births. In the ten years from 1851 to 1860, there were 864,263 births and 610,473 burials, or 78 burials for every 100 births. In Paris, from 1728 to 1737, there were 108 deaths for every hundred births, and from 1853 to 1860, 88 deaths for every hundred births. In the beginning of the 18th century, the rate of mortality in Dublin was one in twenty-two; in the middle of the 19th, one in thirty-eight.

The increase in the average duration of life in England had an effect on the British Treasury. In 1790 the Government borrowed a large sum of money on annuities payable during life, estimating their values by the same tables of mortality which had been used for the same purpose a hundred years before and found satisfactory. But as people lived longer in the 19th century than they did in the 18th, the annuities remained payable long after they ought, by the tables, and according to their values, to have ceased. The mortality under 28 had diminished 42 per cent. among males and 35 per cent. among females during the hundred years. The whole result is that, within a century one-quarter was added to the life of that class of people who had loaned their money to the Government.

We are not in a position to prove by statistics how Canada will compare with other countries as regards mortality, for our census returns are admittedly incorrect, and the registration of births and deaths has been neglected to a great extent. In 1859, Dr. Carpenter, of Montreal, constructed a table which shows that the deaths in forty large English towns were 26 per 1000, or 1 in 38 of population; in English rural districts, 19 per 1000, or 1 in 53 of population; in five U. Canadian towns, average 14 per 1000, or 1 in 71 of population; in all Upper Canada, 8 per 1000, or 1 in 125 of population; but, it is clear, that these results must not be accepted as conclusive. It is claimed that Montreal is healthier than London and Glasgow, and much more healthy than Manchester, and that the deaths of children in the first year of life, in Montreal, are less in proportion to the number of births than in London. According to Mr. Harvey's Year Book, the population of the Dominion, in 1861, was 3,090,561; and in 1860, the births were 112,923, and the deaths 30,157. The number of deaths is manifestly incorrect. The birth rate in Ontario is given at 3.81, and the death rate at 0·73 per cent. Taking the whole Dominion, the ratio of births to deaths is given at 2.75. These figures are disputed, and owing to the carelessness which has been heretofore displayed in gathering statistics, as well as the great difficulties which in new countries it is dangerous to dogmatize, stand in the way of systematizing. In a paper read by Dr. Canniff before the Medical Congress at Paris, it was asserted that among the descendants of the first settlers of Western Canada, the longevity is remarkable. The experience of the Canada Life Assurance Company would be of some value as regards the subject before us, and it is to be hoped that ere long Mr. Ramsay will furnish us with such facts and figures as have come under his observation, in connection with selected lives.

The average time through which any number of persons will live from birth, or any age, is determined by calculation from the records of many people whose whole lives have been subjected to observation. According to Dr. Farr's life table, 1864, an average of 39.91 years was shewn for each of a thousand inhabitants of England and Wales; at twenty their expectation was 39.46 years, and at forty 26·06 years. For the benefit of those not versed in the mysteries of Life Assurance, we give this extract from the paper to which we have already referred:—

"It is the intention of the Life Insurance companies to receive so much in annual premiums, during the life of the insured as, with the interest, will amount to the sum which they agree to pay at death to the heirs. It is therefore necessary that the calculated life, during which they are to receive annual premiums, shall not exceed the actual average of life from the age insured; otherwise they will receive payments insufficient to cover the amount to be paid to the heirs. The Annuity companies, for a certain amount received in advance, engage to pay back to the annuitant annually a certain amount agreed upon. For their security, it is necessary that the sum received should be sufficient, with the interest, to cover all the sums annually returned, through the life of the annuitant. It is further necessary that the calculated duration of life should be at least as long as the actual average; otherwise they will pay out more than they receive. If the person insured live longer than the calculated average, he pays so many more premiums and the company make it so much more profitable. If, on the contrary, he dies earlier, the company receive fewer premiums, and lose. If the annuitant live longer than the calculated term, the company pay him so many more annuities, and lose thereby. But if his life be ended earlier than the average, they save so many annuities, and make a profit on the contract. The calculations in both companies being made on the average, and the business covering large numbers of persons of every age, the long lives which are injurious to the Annuity office and profitable to the Life Insurance office are balanced by the short lives, which affect both of these companies in the opposite ways. Both these classes of companies endeavor to have their life-tables represent exactly the average duration of