

ON INFANTILE MORTALITY IN LARGE CITIES.

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The average number of deaths in each city and district, as compared with the number living at the same age, is now known to be an almost uttering test of its healthiness, or the reverse. So completely is this believed, even by the conservative people of England, and their still more conservative legislature, that, according to the present law, if the death-rate of a city exceed a defined proportion, the Secretary of State is empowered to order the City Council to execute certain sanitary measures, and in default, has the right to do it himself, and charge the expenses on the city.

An attempt has been made, in this country, to upset the cumulative evidence of all previously-ascertained facts, by asserting that it does not matter how excessive be the deaths in any city, provided the births be equally above the average. It is, however, a well-established fact, that in many of the most wretchedly unhealthy districts, the birth-rate is unusually high; nature thus endeavouring to repair the waste which man's sins have caused. A low birth-rate and high death-rate would be the worst possible condition, happily seldom realized. A high birth-rate, with a high death-rate, is the worst ordinary condition. A high birth-rate, with a low death-rate, would be a sign of unusually healthy influences.

In this country, there are unusual difficulties in ascertaining the death-rate for the total population of a city with tolerable exactness, even for a year; still greater for a sufficient time to state a fair average. Far less attainable are correct data for stating those living at different periods of life. So far as Montreal city and its neighbourhood are concerned, the accessible statistics have been collected and published in a series of articles in the *Canadian Naturalist*, bearing date 1859, pp. 173-186; April, 1867; and June, 1869. The results also appear in the yearly Reports of the Montreal Sanitary Association, which was formed during the cholera panic, in the spring of 1866.

Great pains have been taken by some friends of *laissez-faire* to point out inaccuracies in many of these statistics: indeed, the writer of the articles in question was the first to shew that the existing data were, in several important respects, unreliable. All discussion on them must await the result of the forthcoming census; in which we have a right to expect much greater accuracy — or, at least, much less gross inaccuracy — than in the last.

But there are certain classes of facts, first exhibited in the article for 1867, and developed in that for 1869 which are not affected by the various chances of error which may be granted to vitiate, more or less, the other returns. These are (1) the *proportion of deaths of children* to those of adults; and (2) the proportion of deaths, at *different seasons of the year*. In a city like Montreal, where almost all the interments are at the public cemeteries, the date and age recorded for each individual are scarcely liable to serious error. Indeed, the enemies of sanitary reform have never ventured to dispute the facts, nor to reply to the arguments based upon them.

The death of old people is more or less natural; but the death of every child, and especially of every infant, shews that the laws of nature have been broken. Unhealthy influences kill tender infants, while they only damage those of maturer years. The ratio of early to later deaths is, therefore, a fair gauge of the healthiness of the district. For making comparisons, it is usual to take the ratio of deaths under 5 years to the total deaths. If this reach one-half, it is acknowledged as a sign of gross violation of the laws of social as well of individual health. In all England (including the great cities) out of every 100 deaths at all ages, 39* are under 5 years of age. In the country parts of North Lancashire, 32; in over-crowded London, 40; in Liverpool, that "plague-spot on the Mersey," 48. In St. John, N. B., last year, the proportion also reached 48. In Boston, Mass., on the other hand, only 39. (last year, however, 42); in Philadelphia, 46; in New York city, 55; in Providence, R. I., 39; in the whole State of Rhode Island, on the average, 37; in 1867, only 29; being of native American children, only 24, of those of foreign birth, 36. In Halifax, N. S., 36; in Toronto, 50; in Montreal, 65.

The disproportion is still more marked, if we compare the ratios of deaths under 1 year. In all Eng. and the proportion is 21 per cent. In the non-manufacturing districts of Lancashire, 17. In London, where there is an unusual proportion of adults, 19. In Liverpool, with its horrible band courts and gin-shops, 25. In Halifax, N. S., 23. In Toronto, 35. In Philadelphia, 31. In New York city, 28. In Boston, 24. In the State of Rhode Island, 17; in Providence, 17. In the fair city of Montreal, forty-six! In the year 1867, out of 4465 interments at the cemeteries, 2063 — not far short of one-half — were found to have been carried-off by the various emissaries of death, before they had been allowed to live a single year. If the registered baptisms be taken as representing the births,† it would follow that of the city children born within the year, 2 out of every 5 died.

It is clear, therefore, that, as compared with all these other places, Montreal enjoys the unenviable notoriety of being the city where infants are killed-off the quickest. Those who are acquainted with its charitable institutions are well aware that a large proportion of this frightful waste of human life is due to illegitimacy. On analyzing the statistics of the Founding Hospital of the Grey Nuns, for 6 years, the average death-rate among the "*enfants trouvés*" (including a very few born in wedlock, but made-over to the charitable care of the *Sœurs Grises* from poverty) proves to be 621. Of these, 593 died before they were a year old; 362 (more than half) before they were even a month old; 22

* Here, and throughout this article, fractions are omitted.

† Really, a large number of infants are not baptized: the proportion is unknown.