

and the walking cases may harbour the organisms for months or years. Such individuals (typhoid carriers) discharge the germ, in full virulence, from time to time.

Ottawa is outwardly a beautiful city. It is the seat of the Government of Canada, a country rapidly striding into international prominence. Her people, by ever increasing railway and steamship systems, are travelling not only through Canada, but also through the United States and other countries.

From the modes of harbouring the organisms given above, it will be seen that during and after such epidemics as Ottawa has had, every individual from the seat of outbreak may be a menace, not only to his own community and country, but to any which he may visit. The typhoid epidemic to-day is an unpardonable crime against the world. It is scientifically punishable under the sixth commandment. By scientifically is meant that science has proven that typhoid epidemics are preventable by well known and thoroughly tested methods, which, if not adopted, render the authorities guilty of murder. The command to adopt such measures should be coupled with the charge, 'Thou shalt not kill.'

To prevent typhoid, on the other hand, two things only are necessary—two things long recognized as essential to the health of any community—pure water and proper drainage. The official report shows that the Ottawa epidemics, claiming their hundred and fifty-six deaths, were due to the failure to supply these requirements. To this list of the dead must be added those who will suffer from the many sequels now known to be directly due to the typhoid organisms, some being incapacitated for years with consequent poverty and suffering, the full story of which will never be known.

I do not intend to weary the House by referring to this matter at great length, but I have placed the report of that eminent sanitarian on record for the purpose of demonstrating just how serious the epidemics in the city of Ottawa were. The conditions that brought about this epidemic prevail to-day, and up to the present time nothing has been done by the city to alter the conditions that prevailed two or three years ago. The conditions described by Dr. Camac, sanitary engineer, are, I submit, a serious charge, to be made by such an eminent sanitarian as Dr. Camac, in fact, a terrible indictment of everybody responsible for the disgraceful condition of the water supplied to the people of this great city. The officials responsible have left an awful record: 170 precious lives sacrificed, 2,000 cases of suffering and misery hundreds left with impaired constitutions, for the rest of their lives—a record, Mr. Speaker, of ignorance, indifference or criminal neglect. The facts, I think, are startling, and surely call for some drastic action on the part of this House. This Parliament is the only body that can legislate to prevent the pollution of the streams of Canada. The local legislatures have authority as within their own

provinces, but nearly all our great rivers are inter-provincial, and this Parliament is the only body that can intelligently and effectively legislate in regard to this matter. In view of what has taken place in Ottawa it is time that some practical and drastic action was taken by this House. I desire to present to the House a few figures which will demonstrate the great financial loss sustained by this country by reason of these epidemics. Irving Fisher, one of the best known authorities on such matters, has estimated the value of a human life at \$3,000. Professor Wylie, who is, I think, the most eminent statistician in the United States, says that the human life is worth \$50,000; but taking the lesser amount, \$3,000, I think the figures based on this estimate will be found to be startling. In the province of Ontario during the periods from 1902 to 1912, there were 5,796 deaths from typhoid fever, and, at \$3,000 each, the loss to the state would be \$17,388,000. During that period of time there were 50,000 cases of typhoid fever in the province of Ontario, and, computing the loss of time occasioned by this illness at the moderate figure of \$1.50 a day for ninety days—which I think every medical man in the House will say is a reasonable estimate of the length of time lost in such cases—the loss in wages to these people would amount to \$6,500,000. If you add to this the sum of \$5,000,000 for nursing and medical attention and attendance it will be found that the loss to the province of Ontario by reason of the prevalence of typhoid fever during that period of ten years was \$28,888,000. One would not have the temerity to make a computation of this kind as being the net value of the loss to this country; I contend that human life is too precious to be measured by dollars and cents. But taking this as a basis, we find that the province of Ontario lost, during that period of time, as I have said, \$28,000,000, or an amount equal to five per cent on over \$500,000,000. This amount—from the loss of life in Ontario alone—would have provided proper sewage equipment for every great city in Canada. During the two epidemics in the city of Ottawa there were 170 deaths, which, following out the same computation, would be valued at \$510,000. There were 2,500 cases of typhoid fever, which means another \$200,000 in loss of time; 2,000 cases of medical attendance and nursing, amounting to \$270,000—a total of nearly \$1,000,000, which is equal to five per cent on about \$20,000,000. This shows that in this city alone enough money was lost to have protected half a dozen cities as large as Ottawa. The city of Winnipeg is in much the same position, having lost over \$5,000,000 in ten years, or five per cent on \$100,000,000.

While I quote these figures, I would not have the temerity to measure human life