

much prolonged, and that it remains suspended in fluids or mingled with atmospheric air, in both of which situations it retains its inherent activity.

From what we have seen then, of the nature of this contagion, we can readily understand how a single case of the disease, under circumstances favorable to the spread of the poison, might be justly regarded as the starting point of even a more severe epidemic than that it has been the misfortune of Toronto to have felt during the past summer and autumn. Nor do I think it an extravagant supposition that, in a city of nearly a hundred thousand inhabitants, there should always exist one or more cases of a disease peculiar to the country. Dr. Wilson, indeed, in his work on the Specific Febrile Diseases, declares that no city of the temperate zones is ever free from the disease. But it is not even necessary to suppose a single case actually in existence at the time of the outbreak of an epidemic. From what I have said regarding the contagium, we can readily conceive of an outbreak finding its origin in poison, which, arising from a case long past, has been disturbed and found its way into channels, through which it infects. In adopting this idea of a contagium, and rejecting the "filth and dirt" theory, I do not wish to be understood as desiring to detract from the glory of those to whose tender mercies the sanitary matters of our city are committed. Were it possible typhoid fever could arise, as Dr. Murchison contends it does from "filth and dirt," be it said to the credit of those particularly interested this would have been a potent factor in bringing about the epidemic we discuss to-night.

Supposing, then, one or more cases of the disease have existed in Toronto at some previous time, I wish to point out a number of circumstances which have assisted greatly in rendering the disease sufficiently prevalent as to be justly entitled an epidemic.

The summer and autumn just past have been seasons of unusual drouth, and more than once has it been pointed out that drouth and heat are favorable to the spread of the malady.

In England the summers of 1865, 1866, 1868, and 1870, were remarkable alike for

their great heat and prolonged drouth, the early rise and rapid and extensive spread of enteric fever. Whilst the summer of 1860 was noted for its cold and wet, and likewise for its unusual freedom from the disease. Indeed the records of the London Hospital show that in the year just mentioned, typhoid patients were only 50 per cent. as numerous as the average for the twelve years previous. It might be as well to notice in passing that the City Commissioner is not in any way responsible for any influence which the drouth of the past summer may have had over the epidemic.

Drs. Bristowe and Collie differ as to when the discharges from the sick are capable of infecting. The former says "not until decomposition has set in." I am inclined to think with the latter, that fresh stools are capable of infecting; and should we accept Dr. Collie's opinion upon this point, we have at once an important means by which the disease may spread. Attendants, members of the same family, and visitors are liable to be the agents by which typhoid may be carried to other parts. However this may be, I do not doubt that this epidemic, as all other epidemics of the same kind, has been mostly caused by the careless and improper disposal of the discharges from the bowels of the sick. These discharges not receiving proper disinfection, and being thoughtlessly disposed of, the germ is allowed to live, and ultimately finds itself a way into sources whence it contaminates all of the population. In the first place it may do this through the medium of the atmosphere. I believe there can be no doubt that these germs may float about in the air, gain entrance to the mouth in the inspirations, and afterwards become swallowed. Some one has suggested that they even enter the lungs and there mingle directly with the blood.

Liebermeister states, that in the hospital at Basle, he often saw cases arise, which as far as could possibly be seen, excluded every other means than propagation by the atmosphere; and Dr. Von. Gietl cites a very interesting case of the village girl, who had contracted typhoid fever in Ulms, and returned to her native village, where typhoid fever had not been known for a long period of time, to remain