

*By Mr. Warnock:*

Q. All cases of typhoid are not caused from the drinking of water. I have known cases that were traced directly to inhaling sewer gas carrying, of course, the typhoid bacillus?—A. In the main, typhoid is due to polluted water supply. Sometimes it is due to pollution of milk and of food. The latter is generally raw food such as lettuce, celery and things of that kind. You may also have it from eating contaminated ice-cream. These, however, are all minor outbreaks. Then you have, at every outbreak of typhoid fever, what we call secondary cases that are due to infection either from a patient or from a nurse. We had such cases in Ottawa. We had as many as three cases from the original first cases. But in the main, it is a water-borne disease. When the disease originates from the milk it is not owing to the cow itself but to the water that is put into the milk or is used in washing the vessels.

Q. The milk may be contaminated?—A. Yes, from a carrier, or water.

Q. And from sewer gases?—A. From a carrier or water usually.

*By the Chairman:*

Q. I want to clear up that point. Doctor Warnock makes the statement that typhoid fever can be contracted by inhaling sewer gas. Is that possible?—A. There are some specific diseases that may be carried possibly by sewer gas coming up through the sewage system into the house.

Q. Would that produce typhoid?—A. Personally I have never traced any cases to that cause. There are cases of typhoid just as there are cases of diphtheria, which are said to have arisen in that way.

*By Mr. Warnock:*

Q. It is a very common thing in some parts of Canada?—A. Our American friends have attributed the spread of typhoid a great deal to the flies.

*By the Chairman:*

Q. I want to determine more accurately what the danger is from inhaling sewer gas?—A. I think that some years ago one of the Medical Officers under the Local Government Board or State Department of Health reported some cases of typhoid as being due possibly to the inhalation of sewer gas, but that is the most I can say about the subject.

*By Mr. Warnock:*

Q. There was an outbreak of typhoid fever in the Mounted Police Barracks at Regina a few years ago, and that was directly traced to a leaking sewer pipe near the kitchen.—A. Of course flies may have carried the disease.

Q. You may contract the disease just in the same way that you may contract tuberculosis.—A. Nobody wants a leaking sewer pipe, or sewer gas, in the house, it lowers a person's vitality, even if it does not actually give him the disease.

Q. Would you not say that the bacillus may be inhaled from the atmosphere just the same as in the case of tuberculosis?—A. The latest experiments in England in regard to diphtheria indicate that these small germs may be carried in the air, but speaking of typhoid in Canada, I know of no cases that may be attributed to the inhalation of sewer gas.

*By the Chairman:*

Q. If the theory be correct that typhoid fever can be contracted by inhalation would that not prove conclusively that the stench arising from sludge deposited by the sewers on the shore when the water recedes would be a menace to the lives of the