

what they do in International waters?—A. I do, most decidedly, because we cannot throw stones at them so long as we are sinning ourselves.

Q. It would have a good effect on them if we took action?—A. Yes. Of course as they have a larger population, they are the greatest offenders.

Q. We are reducing our own risk, even if they do not do anything?—A. Yes. On the shores of the Great Lakes we are the greatest sufferers, because every municipality is discharging untreated sewage into the lake and is also drawing its water supply from that lake; it is polluting its own water supply, if not to-day, then to-morrow, because the currents change with the winds and seasons.

Mr. JOSEPH RACE, F.I.C.:—

The effects of the pollution of navigable waters have chiefly been reflected in the abnormal death rates from enteric diseases, and it is these rates that have attracted public attention to this serious problem. At the outset it should be remembered that it is the use of such water for drinking purposes without purification that is the cause of so many deaths, and that the sewage problem has become acute on account of the failure of communities to realize their responsibilities in that direction.

We come now to the other aspect of this problem. If the sewage pollution of navigable waters is allowed to continue and the population continues to increase, a stage must ultimately be reached when they become impossible as a source of domestic water supply and finally a nuisance.

Q. What is your opinion regarding the whole question of the prevention of the pollution of streams?—A. I think that all sewage pollution and trade wastes ought to be prevented from running into the rivers unless thoroughly purified.

Q. Do you agree with other scientists that typhoid is a water borne disease almost entirely?—A. Not almost entirely, but a large proportion of it is.

Q. You believe that it is a disease that is preventable?—A. Yes, certainly.

Q. What percentage is preventable by legislation?—A. I should say at least 75 per cent.

Q. Then according to your statement your opinion is that if we had proper sewage protection in the city of Ottawa we would have had at least 75 per cent fewer typhoid cases and deaths during these epidemics?—A. Undoubtedly.

Dr. W. T. CONNELL:

Q. If there were typhoid fever at Kingston, would that not increase the danger of infection at the towns below?—A. I think that we can say that either typhoid fever cases or typhoid carriers are constantly present in every town and city, hence that a certain number of typhoid bacilli are being daily discharged with untreated sewage into the rivers and lakes by practically every town and city in this country.

Q. If there were anything of an epidemic, of course that danger would be increased?—A. Provided the excreta were not disinfected, as they are supposed to be by law.

Q. Speaking generally would there be any suggestion you could make which would be applicable?—A. Every city should treat its own sewage in such a manner as to render it harmless to any other cities or towns which may take their supply from below.

Q. And harmless to itself also?—A. Of course, to itself, the selfish reason would apply first. As I have said, I think our own experience has been that the danger is very largely to one's own town first, and secondly to those below, and so for purely selfish reasons we should treat our sewage and thus not injure ourselves, and secondly, not to injure others.

Q. As the population of the country increases, will the danger increase or lessen?—A. It will increase with the growth of population unless proper safeguards are adopted.