

population, will be rendered "practically harmless before being discharged into our watercourses. When it is considered that in 1912 there were only five sewage disposal plants in operation, capable of treating sewage from a population of 16,500, it must be evident that municipalities are co-operating with the Bureau of Health in the improvement of the condition of provincial waterways.

"Systematic supervision and inspection is made of the existing sewage disposal works by the engineering officials of the Bureau."

I think that is an important matter. After the plant has been installed, the Government exercises supervision and sees from time to time that it is working efficiently.

"and suggestions offered, which are calculated to give a higher standard of efficiency in each new installation. The Bureau of Health has, up to the present, concentrated its efforts in the prevention of stream pollution by municipalities, but now that the towns and villages are alive to the consequences of neglect in matters of sewage treatment, it is the intention of the officials to direct their energies towards the large section of the population who, individually rather than collectively, contaminate surface water supplies. There are numerous settlements, camps and villages along our streams and creeks, which have no system of disposing of their sewage, but simply use the nearest watercourse as a common sewer. Such streams being subjected to direct pollution from faecal matter entering the water from isolated houses or camps, are capable of carrying disease through the large areas of the province which they traverse. This form of contamination is particularly dangerous, and is largely responsible for the outbreaks of typhoid which have occurred in the province. The possibility of some such direct pollution being present in a river, which is supplying unfiltered water to one of our larger towns, is only one instance of the vigilant guard, which must be kept over our streams. With this in view, the Bureau of Health is about to commence a thorough and exhaustive inspection of the various watercourses throughout the province."

Q. Would you just explain to us the method of sewage treatment. That report does not seem to make very clear what system they are pursuing?—A. No. It does not, but I believe they have some form of sprinkling filters in which the sewage is distributed.

Q. How do they keep them from freezing?—A. I believe some of these places are covered in. It is quite possible to cover in a small plant. I have here a plan, drawn up by the late Mr. Galt, for the town of Palmerston, Ont., to help them out of the difficulty caused by the pollution of a branch of the Maitland River, which comes out at Goderich. Palmerston has a population of two thousand. The sewage comes in here (indicating) where the grosser materials are removed. It then passes on to the septic tanks. That, you see, is the sludge basin into which the sludge drops. From there it is run to the sprinkling filters, which are built up for five or six feet, with either gravel, stone or other material, and the revolving arms distribute the sewage on to these beds. Then it passes into the next tank, where you can add your hypo; or any other preparation you like. It then goes out to the river. This is an up-to-date plant. The total cost, including an extension of the trunk sewer and fifteen per cent for contingencies, was estimated by Mr. Galt at \$15,068. If you will permit me I will hand in a statement showing the cost of this plant and also one at Bridgeburg and at Preston. (See exhibit No. 7 in Appendix.)

By the Chairman:

Q. What is the population of Palmerston?—A. Two thousand.

Dr. CHARLES A. HODGETTS