presence of colon bacilli or intestinal bacteria in so small quantities as 1 c.c. This is considered a severe infection. The data at hand seem to point to the intake as the source, and this is not to be wondered at from its position between the outlet at the eastern gap and the sewers on the shore to the west of the island. On several occasions I have been able to detect chemically and bacterially the presence of sewage right over the intake, depending on the direction of the wind. The danger is continually menacing, and will in all probability get worse as time goes on and the population supplying the sewage increases.

Two remedies present themselves: 1st, a complete sterilization of the sewage, or, 2nd, filtration, after modern methods, of the present water supply.

According to methods now in use, to sterilize the sewage it would require a trunk sewer from the extreme west to the extreme east of the city, several miles; a collecting basin or septic tanks large enough to hold 30,000,000 gallons (this would mean a covered reservoir 1,200 feet x 400 feet x 10 feet deep); a pump equal in capacity to the present city water plant to lift the sewage 200 feet (the present water head is 219 feet), and distribute over perhaps 400 or 500 acres on the sandy land at Danforth Road. During fair weather this would do the work pretty nearly perfectly, and protect the water intake. But we would still have the effluents from the Don and the Humber Rivers. The island would be difficult to connect up, and, as has happened in other places, certain other sections of the city would not be connected up and their sewage would go untreated. And again, in case of heavy rains the whole plant would be put out of commission, and untreated sewage would necessarily have to overflow into the lake. A 30 million pump would not be able to handle 100 million gallons. This would cost about $6,000,000. The maintenance would be high, even higher than to now pump our water. The shipping going in and out of the bay is not a negligible item either.

No other method so far devised for sewage disposal could be thought of for a moment as an efficient or even as an approximately efficient method to protect our water.

Now as to the 2nd, filtration of the water. By this the water can be made as nearly absolutely pure as possible. Where it has been done properly, the rate of typhoid and other intestinal diseases has been brought down to that of cities having strictly unimpeachable water supplies—snow caps, or deep artesian wells. The first necessity here is a pure water supply. Fil-