

a sterile water offers a nidus for a host of harmless organisms, but the analyses of samples taken from commercial bottles at Chicago at various intervals up to a month gave insignificant counts. Such results are manifestly dependent on the care with which the empties are washed. It is to be hoped that further corroborative results on a number of these points, as well as the limits in the rate at which water can be treated, will be obtained. The current cost at this plant is necessarily so low that it is hardly a factor in the total expense.

However, assuming a 110-volt, $4\frac{1}{2}$ -ampere lamp capable of sterilizing 150 gallons of water per hour, and estimating the cost of electricity at \$25 per kilowatt per year, or 0.3 cents per kw-hour, the cost for 1,000,000 gallons is only \$10, a figure not beyond the reach of those who wish a final polish on a water already coagulated, settled and filtered, and who do not care to take the possible chance of a taste and odor due to a chemical sterilization. For small domestic supplies, such as high-class residence towns, hotels and bottled-water service, this new method of meeting the ever-increasing demand for a more safe drinking water will bear study.

ANOTHER SEWAGE DISPOSAL SCHEME.

We noted in last week's issue that the United States Secretary of War had decided to refuse the application of the Sanitary District of Chicago for the right to divert an increased amount of water from Lake Michigan. This question has been up for discussion for some time, and Canadians will be pleased to note the action of the Secretary of War. A new scheme has now appeared, which, if allowed to materialize, would cause ill effects as great as increased diversion of water for the Chicago Drainage Canal.

The municipalities along the Niagara frontier, from Buffalo to Lewiston, in New York State, are investigating the possibilities of joint action with regard to their sewage disposal. It has been suggested that the towns and cities in that vicinity collect their sewage in a trunk sewer tunnel, which would run from Buffalo, on Lake Erie, to Lewiston, on Lake Ontario. As the fall from Lake Erie to Lake Ontario is over three hundred feet, by this means it is expected that about 250,000 horse-power would be utilizable by the installation of a power house at Lake Ontario or on the Niagara River. Leaving aside the practical difficulties, such as irregularity of flow, necessity of a pressure tunnel, and the consequent difficulty in collecting sewage from the towns along the route, etc., the promoters of this visionary scheme neglect to consider the effect of dumping the combined sewage of practically a million people, without treatment, into Lake Ontario. It is extremely likely that a good deal of opposition will develop if it is attempted to carry out the plan. The scheme, on the face of it, looks like a veiled attempt to secure water power privileges for the interested municipalities. No doubt the Canadian Branch of the International Joint Commission and the Commission of Conservation will look after Canadian interests when the right time comes. Their energetic action in the case of the Chicago Drainage Canal diversion cannot be too highly commended.

EDITORIAL COMMENT.

It is stated that President Maurice Connolly, of the Borough of Queens, New York City, has prepared an ordinance providing for a tax of \$1 on every funeral cortege which passes through the borough, for the purpose

of establishing a fund for maintaining the roads of the borough. The proposed tax would be a revival of a former ordinance covering nearly the same ground. Practically all the convenient routes which lead to the several cemeteries in which the dead of New York are buried lie in the Borough of Queens. The income which would be derived from such a source is estimated to amount to about \$100,000 annually. The present state of Yonge Street, Toronto, might warrant the York County Highway Board raising a fund in a similar way. There are four cemeteries on Yonge Street, and no doubt the annual income from such a source would be large. We offer this suggestion to them gratis, if it will in any way help in Yonge Street improvement.

* * * *

Ottawa is reaping the harvest from the council's policy of procrastination with regard to the water supply situation. Two typhoid epidemics in two years would appear sufficient to justify more action and less talk.

LETTER TO THE EDITOR.

CONCRETE FOR THE BLOOR STREET VIADUCT, TORONTO.

Sir,—According to the reports in the daily press the Commissioner of Works of the city of Toronto has recommended the city council to consider only the use of steel in the construction of the Bloor Street viaduct. He is reported to have added to this recommendation some reflections on the permanence of concrete construction which are liable to recoil on his department which, under his predecessor, has been a very successful user of concrete on a large scale, and in some novel and unusual ways. Doubt as to the strength and permanence of the Harbord Street bridge and of the poles of the city's hydro-electric system may be counted on to follow such comment, and we shall probably hear from Pro Bono Publico recommendations for the thorough painting of these and other structures before their permanence is seriously impaired.

It is unfortunate that concrete construction should thus seem to be attacked by one who, from his position, will be looked on by outsiders as an expert. By those who are able to appreciate the magnificent possibilities of concrete work this action will be taken as amusing or deplorable, according as they view it as a personal opinion or as the policy of the engineering department of a large city. By the general public it will be taken either as a sweeping condemnation of concrete or as another instance of the worthlessness of expert advice. In any event, the city council will be well advised if the recommendation is rejected.

Whether concrete or steel is the cheaper material there can be little doubt that from an architectural standpoint a much more pleasing effect can be secured from concrete. There are several steel viaducts in the city of Toronto, but only one of these, the Wilton Avenue bridge, has any artistic merit. The remainder stand as examples of what the bridge engineer can create when cheapness is the first and only consideration. Several of these refuse really to stand, but vibrate to such an extent that the city has given up the attempt to keep them lighted with electric lights. They are a continuous source of expense, and call for frequent renewals of the wooden floors and sometimes call in vain for paint. They were at their strongest the day they were erected and are weaker for every day they stand—concrete built at the same time would now be over ten per cent. stronger. A fine effect is, of course, possible with steel, but Toronto can only show one example in steel, while the