THE

Sanitary Review

SEWERAGE, SEWAGE DISPOSAL, WATER SUPPLY AND WATER PURIFICATION

THE PROVINCE OF ALBERTA AND SEWAGE DISPOSAL.

We publish in this issue a copy of a resolution lately passed by the Alberta Provincial Board of Health and forwarded to several of the municipalities.

The resolution extends the period allowed for the commencement of sewage disposal works.

Many of the cities and towns of Alberta were under notice to install sewage disposal works by 31st December of this year.

It will be noted that the whole question of sewage disposal is being held up throughout the Province in order that a test experiment may be made in what the Board terms "Mr. Owens' system."

Reflections are made upon all other systems of sewage disposal, and it is stated in the resolution that: "All the old systems now in use are regarded by sanitary authorities as falling short of giving anything like a safe standard of purification, and are practically condemned."

A statement such as the above coming from a Provincial Board of Health requires serious consideration. We must confess we are at a loss to understand it. Does it mean that all modern sewage disposal plants, which duly accomplish the removal of putrescibility and are accompanied by disinfection by hypochlorite or some other agent, stand condemned?

If this is what is meant, then we are at a complete loss to understand why the whole question is being held up until Mr. Owens' system is tried out.

We have seen a copy of the plan and specification of Mr. Owens' system, and we find that there is no new feature connected with it but what may be found in other systems. For example, the system aims at a non-putrescible effluent followed by disinfection by hypochlorite. The system is similar in detail to Dibden's slate-bed system, except that concrete slabs are substituted for the slates. This system has already been tried out, both in England and in connection with the Lawrence Experiment Station at Massachusetts. Calcium hypochlorite has been thoroughly investigated and its efficiency as a disinfectant assured.

When old systems are said to stand condemned, it can only mean that reference is made to systems which do not include the destruction of bacteria by disinfection. If this is the case, then Alberta is far behind the adjoining Province of Saskatchewan, where disinfection of non-putrescible sewage effluents is insisted upon by the Government as a necessary adjunct to all sewage plants where pathogenic purification is required.

Mr. Owens, who is referred to, is a member of the Alberta Provincial Board of Health, and is their adviser on sanitary matters. We consider it as somewhat peculiar that the Board should hold up all sewage work in order to test out a scheme which one of its members appears to claim as his own, and which has already been patented by a sanitary chemist in England, and in connection with which all data as to efficiency or otherwise is at hand.

STERILIZATION OF WATER AT CAMBRIDGE, ENGLAND.

Sterilization as a method of procuring pure water for drinking purposes appears to have come into extensive use. In a number of cities in Europe and the United States and a few cases in Canada, sterilization by means of chlorine has been tried and apparently with some considerable success. What the effect will be by long and continued treatment is not yet known.

At a recent meeting of the Royal Sanitary Institute of Great Britain Prof. Simms Woodhead gave a careful description of experiments carried out at Cambridge, where some 77,000 gallons of water were treated daily by chlorine.

Cambridge water is being treated with one part of available chlorine in 7,000,000. This water is free from organic matter through the small proportion of chlorine necessary to sterilize the water.

In the discussion following the reading of Prof. Woodhead's paper it was made known that several English towns were using this method of purification, one of the speakers mentioning that he was trying 200,000 gallons of river water daily and was getting satisfactory results.

It is interesting to mention in this connection that one of the speakers intimated that he had a large ozone plant installed, and that, although he was satisfied with the results, he did not wish to make known the location of the plant as yet.

Chemical standards for pure water are now being replaced by a bacteriological standard, and indications point to pure water standard of the future being practically the absence of **coli**. If this is to be the standard, then filtration will not be enough, as the best filters will not entirely remove coli, nor will storage. Sterilization will. It may be that this standard is too high, the requirements too severe, but, with the increased engineering experience and the more hearty working together of the chemist and the engineer, the old standards will be so much improved and methods perfected so that pure water may be cheaply secured by efficient processes.

THE TORONTO GLOBE AND THE TORONTO WATER SUPPLY.

A distinguished British visitor has expressed surprise that Toronto has not been filtering her supply of water. When he learns that Toronto has at her doors