

ADMINISTRATION OF HEALTH QUESTIONS BY CENTRAL AUTHORITIES.

As far as the questions of sewerage, sewage disposal, and water supply are concerned there can exist no doubt but, that, such questions must be settled and administrated by a central authority.

In Canada owing to the fact that the Dominion is divided into Provinces, the central authorities must necessarily be invested in the Provincial Governments.

Whether or not a supreme authority acting as a Court of Appeal should not be provided by the Dominion Government is a matter of policy which requires attention at Ottawa.

Dr. Hodgetts, the Secretary for the Provincial Board of Health of Ontario, is decidedly in favor of a supreme central authority at Ottawa, directed by able medical men and engineers, who can keep in touch with the work done in other countries as well as studying local conditions, so that it may be in a position to advise the several Provinces throughout the Dominion.

We must certainly agree with Dr. Hodgetts. In fact, his aim appears to be the establishment of an authority in Canada on the same lines (or improved) as that of the Local Government Board of Great Britain.

At the same time, owing to the great extent of territory in Canada, much must be done and left to the Provincial authorities.

What is being done at the present time by Provincial authorities is a mere flea bite compared with what ought to be done.

Provincial Boards of Health are all very well as at present constituted in Ontario and Quebec as a means of obtaining statistics of deaths from various diseases, and isolating diseases, which may, if left unattended, become epidemic. But what are these boards doing as central advising authorities to the various municipalities under their jurisdiction? Practically nothing! They have practically no data to hand out to the aspiring municipality, either as regards water supply or efficient sewerage or sewage disposal. They simply sit still and wait to see what each and every individual village, town, or city may do, and then after the event may criticize.

Now, what is really wanted, before we talk of a Dominion central authority dealing with these matters, is that every Provincial Government has an organized staff in its health department capable of giving just the exact advice required to its several municipalities upon questions of efficient and good water supply, general sanitation and purification of sewage, so that the present sources of water supply may be kept pure.

Mr. T. Aird Murray at Winnipeg, lecturing before the city council and others last week, made this point an issue. At present the city of Winnipeg discharges the whole of its sewage in a raw state into the Red River and Assiniboine. The local press have been raising a cry against this pollution. The point which Mr. Murray raised is simply this, that there is no provincial legislation on the subject, and even if Winnipeg purified its sewage, that these streams would still be polluted by Portage la Prairie and Brandon above Winnipeg. The question is not a municipal one first, but a provincial one first and a municipal one second.

The Province of Saskatchewan have taken up this matter as a provincial question, and are about to frame laws and regulations dealing with the whole question on lines similar to those adopted by the State Boards of Health in the United States. Until Manitoba can see its way to adopt similar legislation little can be done, either at Winnipeg or any of the other large centres of population in the Province either to improve the quality of the water in the rivers or the general health of the people.

WATER STERILIZATION AT BOONTON, N.J.*

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The purpose of this paper is to describe the methods of operation followed during the first three months' operation of the sterilization plant of the Jersey City Water Supply Company at Boonton, N.J., the historical phases of the subject and a description of the process and the plant at Boonton have been given in papers of Dr. Leal and Mr. Fuller. In this paper, therefore, only the methods of operation will be described, together with a discussion of the results of analyses of the raw reservoir water and the treated water made in the laboratory of the water company at Boonton and in the laboratories of Dr. George E. McLaughlin, at Jersey City, and Dr. Wm. H. Park in New York City.

Force Employed.—From September 26th to December 31st, 1908, the operation of the sterilization plant at Boonton was under the direct charge of the writer. During that period Messrs. H. C. Stevens and Guy Britton were engineering assistants dividing the duties of the 24 hours of each day, and Mr. L. R. Whitcomb was analyst.

The duties of the engineering assistants were to superintend the preparation of chemical solutions and the application thereof to the water; to prepare accurate records of the rates of application of the sterilizing agent to the water; to collect and test at frequent intervals samples of the chemical solutions in order to ascertain the variation in strength of the same; and to prepare daily reports showing all necessary details of operation. Mr. Whitcomb's duties were to collect and analyze at least once a day samples of the raw reservoir water and of the water after treatment at a point on the aqueduct about one-mile below the point of application of the sterilization agent; and, also, to carry on incidental studies to show the effect of the treatment on particular forms of bacterial life.

In the beginning each of the tanks in which the chemical solutions were mixed and stored was carefully calibrated and tables prepared showing the content of each tank at different depths. The orifices whereby the flow of solution was regulated were also carefully calibrated and tables prepared showing the discharge through each orifice under a constant head with the orifice opened to a varying degree. With a knowledge of the amount of water which was being delivered into the aqueduct, it was possible by means of these tables

*Read before American Waterworks Association.