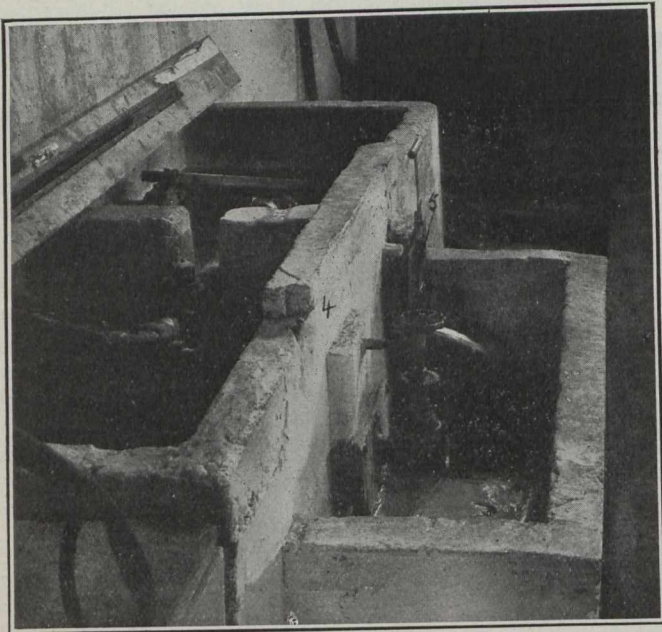
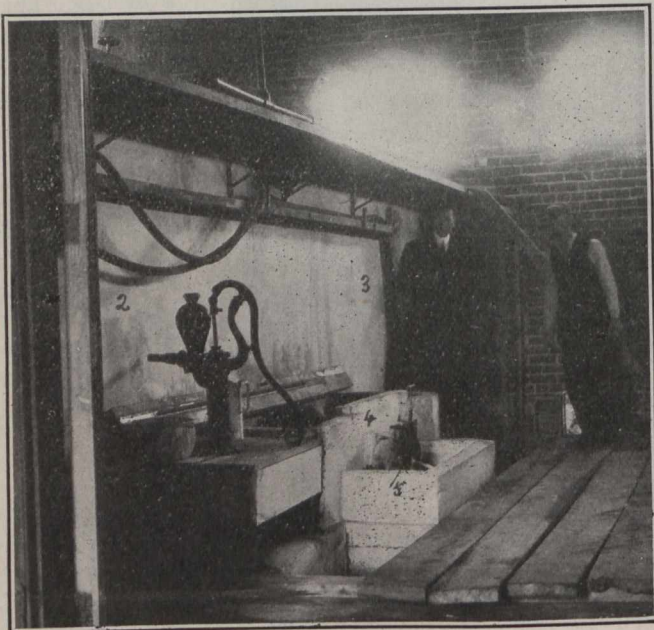


last October, a period of eight months. Fairly high counts have sometimes been obtained in districts supplied by the water after it has been passed through the reservoir or through the high-level pumping station, due to after growths of bacteria, but these are without significance. During May,



Toronto Water Chlorination Plant. Nos. 2 and 3, solution tanks. No. 4, constant head tank, and No. 5, calibrated valve.

for instance, the average bacteria count from the laboratory tap on gelatine was only 5 per c.c., which is quite extraordinary. The results seem to prove, moreover, contrary to the experience of Stokes and Hachtel of Baltimore, that the action of chlorine upon *B. coli* is selective, and that this organism is more readily destroyed than some of the other organisms present.



Toronto Water Chlorination Plant. No. 4 shows constant head tank, and No. 5, the calibrated valve.

The chlorination of the city water supply is under the direction of Dr. G. G. Nasmith, the Director of the Laboratories, who is held responsible for the results.

The value of the method may be gauged from the fact that while in 1910 the death rate in Toronto from typhoid was

45 per 100,000, it was only 20 per 100,000 in 1911, in spite of the fact that for several weeks in 1911, on account of a broken intake pipe, consumers had to drink bay water, heavily contaminated with sewage.

BRITISH COLUMBIA

Application is being made by the International Railway and Development Company for a water right on the Fraser River and for a license to dam that river at a point above Yale at what is known as the canyon. The company is a new one, and the idea is also new. Local men are interested, the names of Mr. H. H. Stevens, M.P., Mr. E. W. Lee-son, of Vancouver, and Mr. H. T. Thrift, of Ladner, are mentioned, with Mr. D. M. MacDuff as the company's consulting engineer. It is stated that \$5,000,000 is immediately available for development purposes, and that capital up to \$20,000,000 will be supplied from Great Britain. The plan outlined is to construct lines of electric railway throughout the lower mainland.

Waterpowers abound at different points on the lower mainland, close to Vancouver the centre of activity and where the biggest market for electrical energy would be found. The promoters of the company must be optimistic, or are building on securing money from Great Britain and going ahead with the project for what there is in it. At present, the field seems covered by the British Columbia Electric Railway Company and the Western Canada Power Company. The British Columbia Electric Company is constantly increasing its supply and building reserve auxiliary plants to obviate any serious loss or inconvenience loss to its patrons through a breakdown of any of its units. Still it is aggressively in the field after business, indicating that it is able to furnish power for more customers. The Western Canada Power Company has its plant thirty-five miles east of Vancouver, considerably less than half the distance to the Yale canyon of the Fraser. This company has spent three million dollars developing the power on the Stave River and is now supplying electrical energy for industrial purposes. It has a very large amount yet to place before it will have exhausted its capacity. To secure use for its power, the company has agitated the construction of an electric tram line between Vancouver and Mission, paralleling the Canadian Pacific Railway. It was in connection with the financing of this that Mr. John Hendry sounded the London market when in the Old Country in the spring.

In addition to these operating plants close to the lower mainland market, or rather in it, there is power on the Lillooet River, this side of Stave River, which has often been suggested but as yet undeveloped. There is a magnificent power on the Squamish River, a little over thirty miles from Vancouver, at the head of Howe Sound. Then there is the big power at Powell River, 80 miles up the coast, where the pulp and paper mills of the Powell River Pulp and Paper Company are located. All these are easier of development than the Fraser canyon proposition, though there is no denying the fact that once a dam was built to withstand the turbulent flow of that mighty river at its flood a great amount of power would be available. To secure adequate returns on their money, the company must expect a large increase of population on the lower mainland. In the meantime, the companies already established will not have been inactive. There is no field north or east of the site, proposed, so that what power is placed would have to be utilized in the district lying between Yale and Vancouver. The scheme is no doubt feasible from an engineering point of view, though the construction of a dam to restrain the Fraser will be no easy task. The proposal is certainly ambitious.