

companies use similar methods, but so far as I know they generally do not. The exact methods used had previously been developed on sewer work. Now as to the conclusions which may be drawn from our experience:

First, the plant and business needs continual and watchful care. In our case the care has been provided, and consequently the business has been successful. It has been very fortunate that there have been few changes of officials. The office of President of the Board, or Mayor, during all this time has not changed. The chairman of the water and light committee also is an old-timer, and has from the first been identified with the business. Questions of policy have been given careful consideration; just as careful as though it had been their own business. The result has been a good profit, but it is very easy to see how the balance might have been the other way. This is the chief danger that confronts any scheme of municipal ownership, namely, that men of ability may not be willing to give their attention to the town's business, or that the people will not have the good sense to keep that sort of men at the head of affairs.

Second, as to the ability to meet emergencies. We had an experience of this kind growing out of the partial wrecking of all plants by the earthquake. This rests upon the men and not upon the system. In our case we feel that we have no cause for regret, inasmuch as water was supplied in about 24 hours, and gas in three days. This goes back to the first question of management.

Third, the ability to provide extensions.

In this particular the municipality is decidedly at a disadvantage. Whereas, a company can in this case borrow money to meet a large increase in the demands upon it, a municipality can not do this except a bond issue, which cannot be resorted to in all cases. Consequently it is necessary to look well ahead and provide far in advance for such extensions of magnitude as are likely to be necessary.

Fourth, as to the attitude of customers. In these matters we are dealing not only with gas but with human nature, and this is practically the same the world over. There is an occasional demand for lower rates, in the case of the town, as there would be with the company. There is the same distrust of meters. About half the consumers consider the collector and meter reader to be their natural enemy. The people's pride in the plant is chiefly in the abstract, and does not particularly affect their attitude toward bills, and service. And yet it is not quite fair to let the question go at that, for there is a certain amount of feeling of individual ownership, which probably makes the conduct of these matters a trifle smoother than in ordinary cases.

Fifth, general conclusions.

The conviction of the writer is that no municipality should be advised to undertake the management of plants for the sake of profit, solely, as an individual or company may do. There should in general be other and stronger reasons. In the case of water, there often are such reasons. As we leave water supply and look along the line of other utilities, we find that in general these causes have less force. This does not mean that gas should be supplied at cost. In the first place, in a developing community extensions and increased facilities in every way are certain to be needed. If gas is supplied at cost all this must be accomplished by taxation.

Secondly, the question of exact cost is a precarious one at best. It must include all unexpected and emergency expenses and can really only be determined after a long term of years.

The probability is that selling at a cost determined from ordinary expenses would finally result in the plant requiring support from other resources of the town.

SOCIETY NOTES.

(Continued from page 569.)

Toronto Branch, Canadian Society of Civil Engineers.

At a meeting of the Toronto branch of the C.S.C.E., held in the Chemistry and Mining Building of the University of Toronto, on Monday evening, November 15th, Mr. Allen Hazen, consulting engineer, of New York, who was recently engaged by the City of Toronto to give expert advice in connection with the installation of a filtration plant, delivered an interesting lecture on "Water Filtration." The developments of the past eighty years were traced and illustrated by lantern slides. Views and diagrams relating to the water supply of different cities in Europe and the United States were also shown, the references to the plant at Albany, New York, the fundamental details of which are included in the scheme adopted by Toronto, being especially interesting. Of interest to many were the figures quoted to show the desirable effect the installation of meters has on the amount of water consumed.

Mr. J. G. G. Kerry, C.E., chairman of the Toronto branch of the society, presided at the meeting, and among others present were Dr. Sheard, City Engineer Rust, Dean Galbraith of the Faculty of Applied Science, Dr. Oldright, Mr. J. Fleming Goodchild and Dr. King, representing the Toronto Academy of Medicine.

RAILWAY ORDERS.

(Continued from page 565.)

tracks of the British Columbia Electric Railway Company near Front and Columbia Streets, Vancouver, B.C.

8576—October 27—Dismissing application of the city of Vancouver for an Order authorizing the opening of Clarke Drive across the tracks of the C.P.R. Company, that city.

8577—November 3—Granting leave to the Nipissing Power Company to erect, place, and maintain its transmission lines across the track of the G.T.R. Company at Nipissing Junction, in Township of Ferris, Ont.

8578—November 3—Granting leave to the G.T.P. Railway to carry freight traffic over its line of railway from Battle River to Edmonton, Alta.

8579—November 2—Authorizing the C.N.Q. Railway to take parts of Lot No. 213 in Parish of St. Charles Borromeo, and parts of Lot No. 2 in town of Joliette, County Joliette, P.Q., for the purpose of securing the efficient operation of its railway.

8580—November 2—Dismissing application C.P.R. for Order extending provisions of Order No. 7813, dated July 3rd, 1909, authorizing the city of Toronto to construct bridge to carry the highway and tracks of the Toronto Street Railway Company over tracks of the C.P., G.T., and C.N.O. Railways, where such tracks cross Queen Street East in said city, so as to provide that when said bridge is completed it be closed for pedestrian and vehicular traffic.

8581—November 2—Dismissing application of city of Toronto, Ont., to construct high level bridge over Don Improvement and Canadian Pacific, Grand Trunk, and C.N.O. Railways at Queen Street, Toronto, Ont.

8582—November 9—Granting leave to the C.P.R. to load and unload on the Lord's Day to and from car ferries plying between Ashtabula, Ohio, and Port Burwell, Ont.

8583—November 5—Authorizing (temporarily) the tariff of tolls the Bell Telephone Co. shall charge, and form of agreement to be made between it and several rural telephone companies in the Province of Ontario.