"It will require two or three weeks longer after the survey is finished," said Mr. Fawkes, "to complete the estimates. Then we can take up the question of whether the city desires to go into the scheme proposed by Dr. Ings and take water from the tail race of the power plant he proposes. If the city does that, it will not have to build a dam. If it decides not to, a dam will have to be built. The difference in cost would be about $300,000."

Mr. Fawkes already has figures practically complete on the alternative cost of establishing Calgary's future water supply on a pumping and filtration basis instead of running the pipe line to the city forty-four miles from the Rocky Mountains. His preliminary figures on the pumping plant and filtration plant show that such a scheme would cost less than a million dollars, speaking in round numbers. The pipe line scheme will cost much more than a million, but the cost of maintenance in years to come would not be so great. These figures are on a forty million gallon per day basis.

Toronto, Ont.—Concrete bridge construction, while progress may be made in the future, has passed into stages of standard methods and is no longer experimental in so far as assured results are concerned, states F. A. McLean, in his annual report on highway improvement in Ontario for 1912. Past discussion has centred around the relative values of broken stone and gravel; wet and dry mixtures; methods of mixing, types of reinforcement and other details which now belong to settled practice.

Whatever specification is determined upon, however, should be carried out with intelligence, and in good faith. To this end, capable inspectors are necessary. Carefully drawn plans and specifications are of little value if their interpretation is left to men who have no proper knowledge of the properties of Portland cement and its use. Inspectors should be selected by the engineer, and should be carefully instructed before being placed on the work. Inspectors appointed by Boards of Works and councils, because of their influence, can rarely be expected to develop the skill, interest and enthusiasm that properly belong to the position and which are essential to best results. The writer has in the past found young engineering students of the second or third year to be in many respects well qualified, while the experience and training is of much value to them and ultimately to the public.

Better results could in many cases be had, were engineers to give more attention to form-work. Too frequently this is left to the rule-of-thumb methods of the foreman or contractor; whereas it is of vital importance that forms of adequate strength and of exact dimensions be provided if the strength and beauty of the structure is not to be jeopardized. Economy and perfect results will be greatly facilitated by detailed drawings for well-designed centres and forms.

Victoria, B.C.—Experiments will be made, under the direction of Water Commissioner Rust, to purify the water in Beaver Lake, which at present, owing to the presence of vegetable growth, is possessed of an offensive odor and color. An effort to precipitate the algae permeating the water, to the presence of which is ascribed the trouble, will be made by Assistant Engineer Foreman and City Analyst Birch. Recently they visited Beaver Lake and made arrangements to undertake the experiments. It is proposed to treat the water with sulphate of copper, bags of this substance to be pulled through the water. The chemical action consequent upon the introduction of the sulphate into the water. will, it is expected, precipitate the vegetable substances and thus clear the water.

The city has not yet been able to secure a full supply of clean sand for the renewing of the filter beds at Beaver Lake, but a small quantity has been secured and the filters can be used to some extent. It is expected, however, that the filter beds will be cleaned and renewed, when this method of cleaning the water from Elk and Beaver Lakes will be in full working order.

With these improvements, the supply from Elk Lake will be much more palatable, and can be mixed with the supply from Goldstream without any deterioration in the water supplied to consumers.

Toronto, Ont.—A special telegram received here from Boston, says efforts are being made by the Canadian Northern Railway to gain a terminal at Portland, Maine.

It is believed here that this step is only preliminary to an attempt to bring its lines into Boston in order to take advantage of the opportunity that the Grand Trunk failed to accept.

A company has already been organized and has obtained a charter to construct a railway from Portland to South Portland and to erect whatever terminal facilities may be needed there. This location offers the only available ground for a terminal at the Maine seaport and would make it possible for a transcontinental line to acquire a Portland entry to tidewater at comparatively low cost.

It is no secret that for some time the Canadian Northern Railway has long desired to enter Portland. Its effort to gain a terminal on United States territory and a share in New England trade led them to take steps toward acquiring rights to build south through Canada from Quebec and into the State of Maine.

Montreal, Que.—According to A. P. Davis, the contractor for the sub-structure of the Quebec bridge the work will be completed by November 15th. The St. Lawrence Bridge Company, which has the contract for the superstructure, will then commence. Mr. Davis expressed the opinion that it will take another four years to complete the bridge, and that it will not be ready for operation until 1917.

Toronto, Ont.—The International Joint Commission at Washington, which is making an investigation to determine what would be the most practicable level at which the Lake of the Woods should be maintained to best serve the interests of navigation, agriculture, power development, and fishing in that region between Canada and the United States, has sent out requests for certain information, the notices having been distributed widespread through the State of Minnesota. The Commission seeks information upon the following matters: The regulation, if any, of such secondary controlling works as exist in both Canada and the United States constructed for the floating of timber to the Lake of the Woods or tributary waters. When such works were installed, and the authority for them, the areas controlled by timber interests, and the extent to which timber has yearly been taken off such lands, and generally all information that would enable a concise report as to the progress of denudation, as well as any work, if any, in the way of reforestation. Data as to operations of all corporations engaged within the watershed of these boundary waters with the history of such corporations, conservation of the fisheries, and the possibilities of the future development of the region for tourist traffic.

Col. Geo. W. Goethals, chairman of the Isthmian Canal Commission and Chief Engineer of the Panama Canal, has consented to accept the honorary presidency of the International Engineering Congress, and will preside in person over the general sessions to be held in San Francisco, September 20-25, 1915.