

Mr. McLean makes one statement which is worth very special attention: "The services of a capable engineer will only double the length of a bridge, as compared with the contract that is let without proper provision."

In addition to mathematical training and experience in the designing office, a bridge engineer to be successful must be a man of practical judgment and experience, and the public should not expect their councils to be bridge engineers.

Even after the contract is awarded, councils possessed of good judgment will retain competent engineers to see that the plans and specifications are adhered to and that the work is carried on in the proper manner.

STEEL PIPE LINES FOR WATER MAINS.

Custom has prescribed that water mains shall be cast-iron pipe. At a recent meeting of the New England Waterworks Association, Mr. Emil Cuichling, consulting engineer of New York city, read a very complete paper on the use of steel pipe for water mains.

In the course of his paper Mr. Cuichling gave an extensive review of the history and practice of steel pipe line construction. His own experience in connection with the Rochester pipe lines, both wrought iron and steel, furnished the text for a considerable portion of his discussion. Considering corrosion, it was pointed out that wrought iron was evidently the superior pipe, it being mentioned that in thirty-five years the wrought iron pipe lines of Rochester had given little or no trouble.

The discussion which followed brought out very clearly that the corrosion of steel pipe recently placed was due to the fact that it is impossible to get coatings that would adhere to steel surface.

The general feeling appeared to be that for pipes of 36 inches or larger, steel was just as economical as cast-iron, the difference in the first cost more than covering the repair charges.

THE CANADIAN MUNICIPALITY IN ITS CONTACT WITH AN AMERICAN ENGINEERING FIRM.

American capitalists and American trade houses are looking to Canada for opportunities. The Canadians are welcoming their Anglo-Saxon brothers from the South who purpose making Canada their future home and field for further development. Many things Canadians have learned from the Americans, because their larger population has required their professional men to deal first with problems that in later years have become Canadian problems. In engineering matters Americans have frequently been consulted, and more so in the West than in the East.

Just now the city of Vancouver is considering the advisability of entering into a five years' contract with a firm of American consulting engineers in connection with certain engineering matters that require handling in the near future.

The financier behind each scheme has a perfect right to select from where he chooses his engineering staff, so has the municipality, but we do think there are strong sentimental reasons why the Canadian municipality should employ British subjects in connection with its public works.

The British subject cannot be a stenographer in the office of the corporation in the United States. It is true a Canadian who goes to the United States and becomes a part of the commonwealth receives every encouragement and has many opportunities. The same applies to Americans coming to Canada, but a municipal corporation in the United States would not think of using a Canadian consulting firm for municipal work, nor should the Canadian corporation think of using an American consulting firm for corporation work when there is in Canada a number of engineers of equal standing who could give equally good advice in the matters being considered.

INAUGURATION OF NIAGARA POWER.

The harnessing of Niagara has been the dream of the last half century. Four electrical companies are now generating power along the Gorge, but Ontario and Canada are more particularly interested in the municipal-owned, government-controlled distribution system which has been designed to deliver at cost Niagara power to Ontario municipalities.

This is the first large public ownership scheme—outside of railways—that has been attempted in Ontario. On October 11th, 12th and 13th inaugural demonstrations will be held at Berlin, Ont., in which the Premier of the Province and the Hon. Adam Beck, together with members of the Hydro-Electric Power Commission, will take part.

This will be an eventful occasion for the thirty-five municipalities that are interested in this great undertaking, and it is expected that representatives from a large number of Ontario municipalities, together with press and commercial men, will meet at Berlin the second week in October.

REGISTRATION IN THE DEPARTMENT OF APPLIED SCIENCE.

It would appear from the registration figures recently given out by Registrar Lang, of the Faculty of Engineering in Applied Science, University of Toronto, that the interest in engineering is not by any means dying out. The figures for 1909 and 1910 are as follows:—

	1910.	1909.
First year	167	125
Second year	129	166
Third year	139	138
Fourth year	65	54
	500	483

This shows an increase up to the present of 17.

EDITORIAL NOTE.

In the September proceedings of the American Society of Civil Engineers, Mr. T. Kennard Thompson, M. Am. Soc. C.E., has a brief and remarkably interesting paper on "Rust," as shown in the removal of a seventeen-storey building. Elsewhere in this issue we publish a paper in full.