

The Canadian Engineer

Established 1893

A Weekly Paper for Civil Engineers and Contractors

Terms of Subscription, postpaid to any address:

One Year	Six Months	Three Months	Single Copies
\$3.00	\$1.75	\$1.00	10c.

Published every Thursday by

The Monetary Times Printing Co. of Canada, Limited

President and General Manager
JAMES J. SALMOND

Assistant General Manager
ALBERT E. JENNINGS

HEAD OFFICE: 62 CHURCH STREET, TORONTO, ONT.
Telephone, Main 7404. Cable Address, "Engineer, Toronto."

Western Canada Office: 1206 McArthur Bldg., Winnipeg. G. W. Goodall, Mgr.

PRINCIPAL CONTENTS

	PAGE
Studies in Surface Area Proportioning Method, by R. B. Young	563
Tests Do Not Bear Out Surface Area Method, by Prof. Duff A. Abrams	566
Asphalt Association Engages Engineers	569
Engineer's Library	570
Town Planning Institute of Canada	571
Water Storage on St. Maurice River	574
Electrification of Canada's Railways, by L. G. Denis	574
Water Powers of Quebec, by Arthur Amos ..	575
A.M.E.E. Convention at Niagara	578
Personals	578
Construction News Section	41
Tenders Called For	48, 50 and 52

BRITISH INSTITUTION OF CIVIL ENGINEERS WILL RECOGNIZE "TORONTO" DEGREES

UNLESS he be a graduate of a recognized university, any applicant for membership in the Institution of Civil Engineers of Great Britain must pass an examination. McGill and many other universities throughout the world are on the list of educational plants so recognized by the Institution. For some reason which was never clearly understood, the University of Toronto was unable to secure the addition of its name to this "recognized" list. Graduates of the University of Toronto have long felt aggrieved in regard to this discrimination, but correspondence could not accomplish the desired result. Some months ago it was again urged editorially in *The Canadian Engineer* that the Institution lend a sympathetic ear to Toronto's claims, and the suggestion was made that Colonel (now General) C. H. Mitchell be asked to interview the Council of the Institution and ascertain the nature of the stumbling-block that was in Toronto's way. Col. Mitchell was in England at the time. It was known that he had been asked to head Toronto's engineering faculty upon his return home. It seemed that he was the right man in the right place to get the matter nicely adjusted.

Sir Robert Falconer, president of the University of Toronto, noticed the suggestion and wrote a letter of thanks to *The Canadian Engineer*, saying that he would get into immediate communication with Col. Mitchell, and would ask him to spare the necessary time if at all possible.

In an interview last week, Sir Robert Falconer and Gen. Mitchell told *The Canadian Engineer* that the whole difficulty is in connection with the matriculation requirements of the University of Toronto, which in certain very minor points do not meet the Institution's standards. These points can be very readily adjusted, said Sir Robert, and Gen. Mitchell had

promised the Institution that they would at once be so adjusted, and the officers of the Institution have consequently agreed that "Toronto" will be added to the list of "recognized" universities just as soon as certain formalities are arranged.

REGIONAL PLANNING AT NIAGARA

AT a recent meeting of the newly-organized Town Planning Institute, a full report of which appears on another page of this issue, H. L. Seymour, of Ottawa, spoke very deprecatingly about the "apparent lack of planning in connection with the Hydro-Electric Commission's power development" at Niagara Falls. He said that a \$25,000,000 scheme is being carried out apparently without any regard to its effect on the immediate locality, and he deplored the fact that Niagara Falls, Ont., is being made an island by 8½ miles of "wide open gash."

"I understand that more than one engineer of international repute," said Mr. Seymour, "has claimed that a tunnel would have been more economical and as suitable from an engineering standpoint as an open cut. But the point I wish to make is not whether a tunnel in this case would have been better than an open cut, but that in deciding which should have been used, all factors, not merely the strictly engineering one, should have been considered."

Why has Mr. Seymour assumed that all factors were not considered? *The Canadian Engineer* is informed authoritatively that regional and town-planning considerations were given very careful thought in the plan for the whole scheme.

As to the tunnel, this alternative was most fully considered. It was a subject of study, discussion and debate among the "Hydro" engineers and their consulting engineers for many months. Mr. Seymour undoubtedly spoke in good faith when he voiced his belief that more than one engineer of international repute had claimed that a tunnel would have been more economical and just as suitable from an engineering standpoint, but it is possible that he spoke from hearsay. It is not likely that any engineer of true international repute would make an assertion of that kind without having devoted months to the study of surveys and alternative designs for the two schemes, and to the best of our knowledge and belief, at least, no engineer has made such a study excepting those connected with the "Hydro."

Some day the Town Planning Institute may be able to persuade the men who designed and are building the Chippawa-Queenston power canal, to present papers to the institute explaining the scenic features of the design and possibly outlining some of the reasons why the tunnel alternative was abandoned.

REDUCTION OF WATER WASTE

LAST week *The Canadian Engineer* published an article by the water commissioner of Buffalo, N.Y., who told about the marked reduction in water consumption that was effected by means of pitometer surveys. That article should be a lesson in economy for all water works superintendents and municipal engineers. Consumption and waste in Buffalo had once reached 339 gallons daily per capita,—truly a shocking figure. The city desired to build a filtration plant, but recognized the necessity of first reducing the waste. The pitometer surveys, combined with house-to-house inspection, were very effective, reducing the pumpage to less than 125,000,000 gallons a day. The good work will undoubtedly be kept up by periodical surveys to avoid recurrence of underground leaks, and metering to prevent sheer carelessness by consumers. Water works departments have at their disposal the means to stop practically all waste of water, and every department should have enough initiative and interest in economy to make prompt use of all those means, including inspection, surveys and metering.