The Canadian Engineer

WEEKLY

ESTABLISHED 1893

Vol. 15.

TORONTO, CANADA, NOVEMBER 13th, 1908. .

No. 46

The Canadian Engineer

BSTABLISHED 1893

Issued Weekly in the interests of the

CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, MARINE AND MINING ENGINEER, THE SURVEYOR, THE MANUFACTURER AND THE CONTRACTOR.

Editor-E. A. JAMES, B.A. Sc.

Business Manager-James J. Salmond.

Present Terms of Subscription, payable in advance:

Canada and Great Britain:

United States and other Countries:

ear - \$2 00 nths - 1.25

52 00 One Year 1.25 Six Months 0.75 Three Months

One Year - \$2.5 Six Months - 1.5

ADVERTISEMENT RATES ON APPLICATION.

HEAD OFFICE: 62 Church Street, and Court Street, Toronto Telephone Main 7404.

Montreal Office: B 32 Board of Trade Building. T. C. Allum, Editorial Representative. Phone M 2797.

Winnipeg Office: Room 315, Nanton Building. Phone 8142. G. W. Goodall, Business and Editorial Representative:

Address all communications to the Company and not to individuals.

Everything affecting the editorial department should be directed to the Editor

NOTICE TO ADVERTISERS:

Changes of advertisement copy should reach the Head Office by 10 a.m Monday preceding the date of publication, except the first issue of the month for which changes of copy should be received at least two weeks prior to publication date

Printed at the office of The Monetary Times Printing Co., Limited,
Toronto, Canada.

TORONTO, CANADA, NOVEMBER 13, 1908.

CONTENTS OF THIS ISSUE.

| The City Engineer and the City Council | |
|---|-----|
| | |
| John Galbraith, LL.D | |
| Editorial Notes | 000 |
| Leading Articles: | |
| The Design of Canal Diversion Weirs on a Sand | |
| Foundation | 809 |
| A Page of Costs: | |
| | 814 |
| Cost of Supply Store | 815 |
| Cost of Water Mains | 815 |
| | 815 |
| Railway | 812 |
| Correspondence | 813 |
| Construction Notes | 818 |
| Market Conditions | 820 |

THE CITY ENGINEER AND THE CITY COUNCIL.

The reorganization and new appointments suggested by the Board of Control in connection with the Toronto City Engineer's Department recalls a somewhat similar movement that has taken place in Edmonton, Calgary, Hamilton, and half a dozen other Canadian cities.

In each community there were local conditions which influenced the city council in their actions, but through them all there appears to be a feeling that unless the city engineer is an expert in sewage disposal, electric equipment, highway pavement, and water supply, and also an able administrator, he falls short of being an efficient city engineer, and to the man supposed to possess all these qualifications they propose paying the princely (?) salary of \$5,000 per annum.

A man expert in any one of the departments named is worth twice that money, and the man does not live who is an expert, up-to-date and familiar with the best methods in all the branches of engineering. Why, then, are the members of Council unreasonable in their requests for expert advice from their City Engineer?

The Council have a right to expect their City Engineer to be a good administrator, a man capable of organizing and directing the departments of his service, and familiar, in a general way, with the problems of each department, but to expect him to be an expert is the worst kind of folly. Some municipalities recognize that their engineer must keep posted as to what is being done elsewhere, and send him on trips of inspection. This is very good, but to expect a man in a six weeks' trip to return with clear ideas as to the best method of sewage disposal is asking him to do that which a Royal Commission of Engineers could not decide in three years.

In every department of engineering changes come quickly. Each year new ideas are being developed, methods of a year ago are old, and a city council must not expect a man, tied down half the time to office routine, preparing useless reports and doing administrative duty to be an expert in all lines of work. For each new large work they should be prepared to engage a man specially qualified, and let him design and construct, and be responsible to the City Engineer for a completed scheme.

JOHN GALBRAITH, LL.D.

The thirty years of patient service rendered by John Galbraith to Canadian academic circles and to the cause of technical education have received graceful recognition. The presentation to the university last week of a lifesized portrait is a tangible expression of appreciation, long felt and widely distributed. It was, too, a tribute to his professional fidelity, a faithfulness to a conception of the proper college training of a prospective engineer.

The organization of a new department of a growing university is no small task. To plan and build along new lines, to play the pioneer requires patience, courage and vision. To have found that after thirty years of quiet, unostentatious service that the conceptions of three decades ago are still the expression of student