

The Canadian Engineer

WEEKLY

ESTABLISHED 1893

Vol. 15. TORONTO, MONTREAL, WINNIPEG, VANCOUVER, FEBRUARY 21st, 1908. No. 8

The Canadian Engineer

ESTABLISHED 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:	
One Year	\$2.00	One Year	\$2.50
Six Months	1.25	Six Months	1.50
Three Months	0.75	Three Months	1.00

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, Business and Editorial Representative. Phone M 2797.

Winnipeg Office: 330 Smith Street. Amalgamated Press of Canada, Limited
Phone 5758

Vancouver Office: Representative: A. Oswald Barratt. 619 Hastings Street.

British Representative: A. Webster, 84 Chancery Lane, London, E.C.

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.

A reader is anxious to secure copies of the Canadian Engineer for December 6, 1907 and January 3, 1908. Perhaps some of our subscribers can accommodate him. There is three months' extension of subscription in it.

CONTENTS OF THIS ISSUE.

Editorial:	Page.
Contractors and Engineers	121
A Chaotic Corporation	121
Matriculation Students	122
Leading Articles:	
Rector of the Imperial College	122
Rapid Coffor-Dam Excavation	123
Stresses in Dams	124
As Seen by Others	125
Legal Notes	126
Correspondence:	
G.T.P. Tenders	128
Ventilation of Sewers	129
Book Reviews	130
Construction News	131
Dominion Board Railway Orders	7
Markets	133

CONTRACTS, CONTRACTORS AND ENGINEERS.

The ideal conditions that should accompany tenders on large works have not yet been reached. For so long the engineer has held undisputed the position of judge, jury and prosecuting council, that the contractor has accepted without protest the engineers' forms of tender, methods of calling for tenders and decisions.

Now and then an engineer more courageous than his fellows, less afraid of work and deeply interested in his clients welfare recommends that his clients deal with the contractor

on sound business methods unhampered by the red tape, so much used by many. Not only do specifications frequently contain unreasonable conditions but they often leave to the contractor the cost of correcting the engineers' mistakes in the field, such as improper alignment or incorrect level. This is a piece of imposition the contractor should not have to stand for, but unfortunately sometimes he does.

But to our mind one of the most serious difficulties contractors are called upon to face to-day is in connection with tendering. By far too large a deposit is required, as a guarantee of good faith, and too frequently the deposit is converted into coin of the realm and held for an unnecessarily long time. Sometimes held for weeks after the successful tenderer has been named. Then, too, some individuals and a few companies call for tenders without ever intending to construct, thinking it clever, in this way, to secure correct estimates of cost. This is a piece of sharp practice that no Canadian engineer should encourage.

In another column reference is made to a specific case where the conditions attached to the tenders appear onerous. On the last occasion when the Transcontinental Railway Commission accepted tenders very few tenders were submitted, and the Grand Trunk Pacific Railway secured large sections. It is just probable that this will occur again with the result that they will sub-let the work in small sections at a lower figure, with the result that a large railway company will secure good profits, while the working contractor will do the work at a price he was willing to submit to the commission, if the conditions of tendering had been less burdensome. The country loses, the contractor gains nothing, the railway company secures a splendid profit.

A CHAOTIC CORPORATION.

We have often mused upon the results obtained from aldermanic control of public streets and works, and, for the life of us, were unable to solve the various problems. Witnessing exhibitions of masterly inactivity in snow-removal, of bad grading in streets, of depressed paving, of rotten roadways and naked wires with drunken supports, we have wondered who was the municipal controlling engineer.

It is said that wonders never cease, and we are prepared to admit this axiom right now: for we were stricken to dumbness by reading the momentous announcement made through our esteemed contemporary, the Montreal Star, to the effect that the new aldermen where proposing to establish a Board of Consultation, consisting of the engineers of the corporation.

The Board's duties would be to—as our readers would never guess, we will enlighten them—we repeat, whose duties would be to—(permit us to take a deep breath)—to advise the alderman as to suitable materials for pavements.

Having recovered from the shock of this announcement, we experienced a relapse on reading the following, under date 14th February.

"This Board of Engineers must be given far more important duties than merely reporting as to the feasibility of public works." (We would ask whether this Board have already reported as to the feasibility of the specifications of the proposed water conduit at Lachine?)

"After it is decided to pave a street, lay sewers, build stations, etc., the Board will be expected to see that the works are carried out in a satisfactory manner by contractors.

"Unless this is done, the new Board, in my opinion, will amount to very little."