

The Canadian Engineer

WEEKLY

ESTABLISHED 1893

VOL. 15. TORONTO, MONTREAL, WINNIPEG, VANCOUVER, MARCH 27th, 1908. No. 13

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

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, MARCH 27th, 1908.

A subscriber has for sale bound volumes of the Canadian Engineer for 1893, 1894, and 1895. What are they worth to you?

CONTENTS OF THIS ISSUE.

Editorial:	Page.
Producer Gas	23
Future Water Power	209
Leading Articles:	
Producer Gas vs. Electric Power	210
Power Transmission Development	212
Relation of Coal to Boiler Efficiency	213
As Seen By Others	214
Correspondence:	
Engineer's Education	215
Turnout Problem	215
Concrete Sidewalks	215
Society Notes	216
Construction Notes	217
Orders of Railway Board	219
Market Conditions	219

PRODUCER GAS.

The Hydro-Electric Power Commission has presented a report regarding the cost of producer gas and other prime movers under the conditions obtaining in the Province of Ontario. The report is very comprehensive, and contains valuable data in reference to gas power plants. It will be welcomed as additional literature on the power question of Ontario.

In July, 1905, the Hydro-Electric Power Commission was created with the avowed object of regulating the generating and distributing of electric power throughout the Province. Many accepted the statement that hydro-electric power was the cheapest for all purposes; others would not accept the statement and combatted it vigorously, while others said: "You will have to show us."

It was not until the spring of 1907 that the Legislature requested the Hydro-Electric Commission to report on the cost of power production through the agency of producer gas and other prime movers.

The report has been presented—its meaning cannot well be misunderstood. The engineers of the Commission are practically unanimous in their finding against producer gas, or in fact against any prime mover other than electricity.

The enquiry has been thorough. Every feature of a power plant has been considered: the steadiness of the load, the location of the plant, space required, the fire risk, attendance necessary, capital outlay, and reliability. The statistics have been tabulated so that comparisons are made easy, and in the summaries the conclusions of the engineers are concisely stated.

The engineers of the Commission are to be congratulated on the clear, systematic manner in which they have presented their information and their practical suggestions.

We do not for one moment suppose that this report will still the controversy, Gas Producer Plants vs. Electric Power. Men do and will think of the Commission and their engineers as a body of hydro-electric experts partial to hydro-electric installations. This report leaves but one course open to the Commission and the Government. They must give us power. They must give it now, and it must be hydro-electric power.

We are of the opinion that a report made by engineers independent of the Hydro-Electric Power Commission would have been more kindly received.

FUTURE WATER POWER.

The people of Canada have spent many thousands of dollars on the development of water-power. In the coming years many thousands more will be spent, but so much has been spent and so much will be spent without sufficient data being first secured that we sometimes fear hydro-electric power development will one day receive a serious setback.

Frequently the rating of rivers and streams leading to a storage basin is confined to one season. The municipality or company do not care to wait for more information, and the engineer cannot refer to Government reports and records covering various years, so must go ahead, trusting that he has made due allowance for variation in amount of precipitation and excessive evaporation or run-off.