

# The Canadian Engineer

Vol. I.—No. 8.

TORONTO AND MONTREAL, DECEMBER, 1893.

PRICE, 10 CENTS  
\$1.00 PER YEAR.

## The Canadian Engineer.

ISSUED MONTHLY

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This is to certify that we have printed and mailed  
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MONETARY TIMES PRINTING CO.  
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Per A. W. LAW, Sec.-Treas.

Toronto, December 1, 1893.

### THE HAMILTON CANAL.

In the August number of THE CANADIAN ENGINEER a scheme was outlined for the construction of a canal from a point on Lake Erie to the City of Hamilton; this canal to be used for the double purpose of giving an increase to the water supply which the city now needs, and of supplying electric power and light to the manufacturers of Hamilton. Our usually well informed and public spirited contemporary, the *Hamilton Times*, after quoting our article, dismissed the scheme as one which had been discussed and exploded forty to fifty years ago. We credit the *Times* with deriving its information from local and biased sources, and with a temporary forgetfulness that the world has moved considerably during the last forty years. Forty years ago a million dollars was a very vast sum compared with that amount now, in connection with public undertakings. Forty years ago the resources of the Ontario peninsula were comparatively small. Forty years ago the appliances for the rapid and economical prosecution of public works were nothing compared with those available to-day. Forty years ago the only use of such a canal would be in connection with navigation and water supply. If the question were one of navigation or water supply even now, we could understand the scepticism of the *Times*; but the developments of electricity during the last ten years have put upon this canal the aspect of an entirely new scheme. The fact is, as we have said before, that both for strategical purposes and for commercial purposes, the Welland Canal

should have been built to the head of Lake Ontario, instead of near the mouth of Niagara, and had such been done, the question of Hamilton's manufacturing supremacy amongst the cities of Ontario would have been settled. As it is, we have now to consider the feasibility of a canal to bring electrical power and water supply to Hamilton. Two or three engineers who have gone into the subject somewhat since our article appeared are fully satisfied of the feasibility of the scheme. The water of Lake Erie is of equal quality with that of Lake Ontario, while the water from such a canal would receive as much aeration in falling over the various locks and reservoirs as the waters of the Niagara River receive. The cost of the canal or tunnel, or combined canal and tunnel, is the only question to be settled, and a competent engineer is now going into the matter. This much is certain, that with the appliances now at hand for constructing such work, the cost will be far less than the figures given in any former estimates, and much less than the average citizen of Hamilton would suppose, while such a vast amount of electrical power as this canal would develop would have a wonderful influence on the industrial future of Hamilton. The increased value of real estate and industrial property which the completion of such a work would effect, would alone make the investment a desirable one for the city. We hope before long to be able to give some definite information as to the cost and plans of such a work.

### THE KINGSTON SCHOOL OF MINES.

Under this heading we noticed in our last issue the creation of a new educational institution at Kingston, and we gave the *personnel* of the staff.

In the query, "Why should the Ontario Government pay two professors of mineralogy and maintain lectureships and laboratories when the one already in Toronto could do the work?" the writer overlooked the fact that the School of Mines, while an entirely distinct institution, in reality enjoys all the advantages of indirect partnership with a great University, viz., Queen's.

We also find on enquiry that the School of Mines, though very properly bonused by the Government of Ontario, is self-supporting, with a strong board of governors, and while a large amount of money has been raised by private subscription, it will be necessary for a considerable sum yet to be subscribed to ensure the school's success. It is sincerely to be hoped that there are enough admirers of Principal Grant's patriotic attempt to assist our mineral development to guarantee the permanent success of the school. Besides the education of mining engineers the school gives two months' courses to prospectors, mine foremen and assayers. This is an extremely commendable departure, for it is the prospector and the assayer that are the pioneers of mineral discovery, and too often the former works long and arduously in the dark through lack of