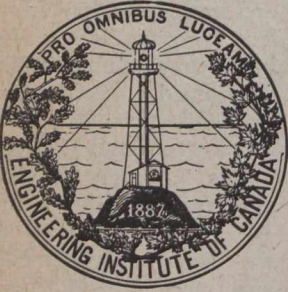


Letters to the Editor

Proposed Emblem for Institute

Sir,—I have placed the enclosed sketch before the committee of the council of the Engineering Institute of Canada, as a design which seems to me to be suitable as an emblem for the Institute.

The main emblem is a lighthouse placed on a rock and shedding its welcome light over an expanse of sea. At the lower edge is the name "Engineering Institute of Canada." Above is a motto, "Pro Omnibus Luceam," let me shine for all. On the left, a bough of English oak, and on the right, one of Canadian maple. On the rocky base you may notice the date of the foundation of the society, 1887.



The oak leaves are to remind one of our connection with the British Institution of

Civil engineers, and of the many distinguished British engineers who have become Canadians.

A lighthouse (Pharos) is almost a living being. It is one of the choice products of the engineer's skill, and one of the few that have never been turned against humanity. Its rays either show the way to safe harbors or they mark the hidden dangers of the route. Does it not seem aptly to express the ideals of the profession?

Publication of the enclosed sketch may bring out desirable discussion and perhaps other designs from the members of the society.

LOUIS G. PAPINEAU, A.M.Can.Soc.C.E.
Montreal, P.Q., April 8th, 1918.

Power Possibilities on the St. Lawrence River

Sir,—An interesting pamphlet recently issued by the Commission of Conservation deals with the "Power Possibilities of the St. Lawrence River." Arthur V. White, the consulting engineer of the commission, who prepared this pamphlet, very succinctly shows the enormous power going to waste between Lake Ontario and Montreal. Taking the minimum flow of the St. Lawrence, and disregarding the enormous increase available by regulating dams on the Great Lakes, it is possible to provide, with the "diversity load factor," over three million horse-power—a quantity about eight times greater than the present combined developments of the Canadian Niagara powers and the Shawinigan Company with its subsidiaries.

Despite these vast power possibilities, Mr. White points out that the power shortage in Eastern Ontario is acute,—as indeed it is also in the Niagara District, with all its world-famous facilities for hydraulic power. Some 20,000 h.p. could be absorbed immediately by the Eastern Ontario municipalities adjacent to or within easy transmission of the high-tension power line of the Cedars Rapids Manufacturing and Power Company, which in its course to Messena, N.Y., passes through the Eastern Ontario territory most affected by this power shortage. Deploring this state of affairs, the Commission of Conservation points to the fact that some 65,000 h.p. of electrical energy developed at Cedars Rapids, near Montreal, is being ex-

ported to the United States for manufacturing purposes, and incidentally part of this load supplies certain municipal requirements in New York State.

If the Cedars Rapids Company is transmitting power through Eastern Ontario on its way to Messena, one is naturally tempted to enquire why on earth this transmission line cannot be tapped to serve the Ontario municipalities so urgently in need of hydro-electric power. Briefly stated, it is probable that the Cedars Rapids Co. has no desire to extend its system into Ontario at great expense and under the covetous opposition of the Ontario Hydro-Electric Commission, to be no doubt finally confiscated by the said commission. It is a well-known fact that the Cedars Rapids Co. is selling large quantities of power for export and to Montreal consumers at prices below what the Ontario Hydro-Electric Commission is selling for, and this company is no doubt willing to sell to anyone who will "pay cash and carry"; but to venture into Ontario as a distributor of power would be showing a reckless disregard for the interests of the investors, who are to be congratulated in having kept themselves beyond the aim of the confiscatory tendencies of Ontario "Bolshevism."

Returning to the lament of the Commission of Conservation on the subject of power exportation, Mr. White suggests what could be done in Canada with the 65,000 h.p. going to Messena. It could supply, he says, at cheap rates, all the light and power required for a manufacturing city of 300,000 inhabitants; or, if distributed through Canadian municipalities, it would supply light and power to some thirty-five manufacturing cities of 10,000 inhabitants each; or, it would practically take care of one-third of the present demands of the Niagara system of the Hydro-Electric Power Commission.

Of what United States communities could do with the enormous quantities of anthracite and soft coal that they export to Canada, we are not advised by the commission. But referring to this question of coal, Mr. White recognizes our dependence upon the United States, and further states that Canada should appreciate the fact that the United States has been dealing generously with her. "Canada," he says, "however, must conserve against the day of her own need such resources as are available for barter."

We wonder if the Commission of Conservation is aware, or realizes, the amount of hydro-power that is available, and whether in the face of such enormous unharnessed resources we are to remain in wait for the day that Canada's population increases sufficiently to warrant their development. We admit that we are contending with power shortages, yet these shortages are too insignificant for us to consider the development on such a huge scale as required with any one of the St. Lawrence powers. The Commission of Conservation should realize that no government or private capital can afford to develop, say, half a million horse-power with a market for only 50,000 horse-power.

We must, therefore, co-operate for an understanding, with a view to selling sufficient power by export to warrant harnessing potential forces, part only of which we so urgently need ourselves.

Taking Mr. White's figures at 65,000 h.p. being equal to the needs of 300,000 urban inhabitants, it is well to note that we have as Eastern Canada's share of undeveloped power some 7,000,000 h.p., capable of supplying the needs of over 30,000,000 inhabitants of manufacturing centres:

St. Lawrence	3,000,000 horse-power
Niagara	2,000,000 "
Ottawa	1,000,000 "
St. Maurice	1,000,000 "