

which has not yet been answered in a satisfactory way, will not the enlargement of the canal system on the St. Lawrence to the Port of Montreal, or a scheme of dams and locks with an improved river channel, be justifiable in the economic working out of our transportation problems, so that upper lake vessels may bring their cargoes to Montreal.

The route via the proposed Georgian Bay Canal will be 282 miles shorter than the existing water route, but the element of time must be considered, and the following is an extract from the report on the Georgian Bay Canal scheme, as submitted to the Government:

"Time of transit is affected by the length of restricted channels on the route, where speed has to be reduced, and by the number of lockages, and consequent delays. A close computation of the speed allowable in the different stretches, with about three-quarters of an hour delay for passage at each lock, gives about 70 hours, as time of transit from Georgian Bay to Montreal.

"With the advantage of shorter distance between terminal harbours, it is computed that the route will be from 1 to 1½ days faster than any other existing water route, under present conditions, from the head of the Great Lakes to an open ocean port, apart from also having an enormous superiority as to carrying capacity. But as compared with a possible improved system of St. Lawrence canals to a depth of 22 feet, assuming that the number of locks would be greatly reduced, and some of the channels widened, probably no practical benefit in time of transit could be claimed, the saving in distance being nearly offset by the longer stretches of lake and wide river navigation which exist through the Lake Erie and Lake Ontario route, where higher speeds would be permissible."

So that in so far as time is concerned, an improved St. Lawrence route would be equal and, perhaps, superior to the Georgian Bay or Ottawa River route. For many years the improvement of the St. Lawrence canal system has been discussed, but not in such a way as to produce definite conclusions. No comprehensive surveys and estimates have been made so as to determine the practicability of increasing the capacity of this route to Montreal on such a scale as contemplated for the Georgian Bay Canal, with locks 650' long, 75' wide, and a minimum of 22' of water on the sill, or of greater dimensions.

The dimensions of the canal and locks is a question demanding careful enquiry and foresight. There are boats on the lakes now 605 feet long, and the proposed new United States lock at Sault Ste. Marie will have 24' 6" of water on the sill.

I think the time has come when such a study of the St. Lawrence should be made, and this, before we should commit ourselves to heavy expenditures on competitive routes.

The idea of canalizing the river by maintaining the navigation