

Editorial

GEORGIAN BAY CANAL REPORT.

To help to decide whether or not it would pay Canada to spend \$125,000,000 upon the construction of the Georgian Bay Canal, a royal commission was appointed by the government in 1914 to report upon the commercial feasibility of such a canal. It will be recalled that under the authority of parliament, a survey and investigation of the practicability and probable cost of a deep waterway from Georgian Bay to the harbor of Montreal, by way of the French and Ottawa Rivers, was initiated in 1904 under a board of engineers. In 1909, this board submitted a report (Georgian Bay Ship Canal report upon survey, with plans and estimates of a cost, 1908), the plans providing for a waterway 22 feet deep, with a length of 440 miles, in which there would be 28 miles of canal excavation, 66 miles of channel dredging, and 346 miles of river and lake; with 27 locks of a minimum length of 650 feet, with 65 feet clear width and 22 feet clear depth, the lift ranging from 5 feet to 50 feet; and with a minimum water supply in the summit basin, capable of being increased, which would permit of 20 lockages per day throughout a season of about 210 days. The cost, originally placed at \$100,000,000, was, in view of increases in the cost of materials, subsequently estimated at \$125,000,000.

The engineers having reported that the canal was practicable, it now remains for the Georgian Bay Canal Commission to recommend whether or not it would prove a profitable undertaking to the nation. In the interim report of the commission, just published under the signature of W. Sanford Evans, chairman, certain economic phases are discussed. No hint, however, is given as to what recommendations the commission ultimately will make. It is an interim report and only that. Replete with information, statistics and guarded suggestions, it gives little inkling as to whether the commissioners will recommend the government to proceed with the construction of the canal. Probably it has been issued in that way because of several important considerations. The first is the fact that the financing and conduct of the war at present constitute the chief business of the country. The second is the railroad situation. The government are selecting an expert commission to consider the position and they will report as to the best solution of the railroad problem. That may involve the nationalization of the railroads or important changes relieving the government of some of their financial and other burdens in connection with two of the railroads.

To some extent, upon the ultimate solution of the railway question depends the construction of the canal. If the railways are nationalized, will the nation need the Georgian Bay Canal as a supplementary transportation factor? If the railroads continue to be operated by private capital, will the canal be needed to help regulate freight rates? These questions in turn will depend upon the conclusions of the Georgian Bay Canal Commission as to whether it would pay the country to spend a large sum of money upon the new undertaking.

Without any reflection upon the commissioners, we believe that they would find little difficulty in accumulating sufficient evidence to come to a conclusion either for or against. After the war is over and the railway question is settled, the decision as to whether or not the canal is to

be constructed, will depend in no small way upon the prevailing political atmosphere and the general conditions which will arrive after the war. Reading between the lines of the report we are inclined to believe that the commissioners are, to say the least, not strongly biased against the construction of the big waterway.

THE SAFETY FACTOR IN HIGHWAY DESIGN.

In surveying routes for highways, engineers should pay particular attention to public safety. As the American Highway Association pointed out in a recent bulletin, speed fiends and drunken drivers are already attended to by laws, but there are many very real dangers which receive little or no attention. One of these is the junction of a road with another at right angles, which is concealed by an intervening rise or curve, so that the junction point is not seen until just before the driver on the adjoining road must turn into the main road. Such places are extremely dangerous and should be eliminated to the greatest extent possible in the design of the road.

The American Highway Association suggests that sign-posts should be erected to warn the traveller of the proximity of a danger of this sort. Sign-posts are not always noticed, however, particularly at night, and the highway engineer should strike deeper at the root of the trouble, and eradicate it entirely if possible within reasonable expenditure, instead of merely posting a sign stating that there is a pitfall beyond.

There is danger also from the road intersection where thick shrubbery or trees make it impossible for the driver on one street to see an approaching vehicle on another until the two nearly collide. Slow driving is of little avail in such places. The only remedy is to clear away the obstructions to sight, and this should be required by local regulations. The same observation applied to the shrubbery on the inner side of sharp curves. The underbrush should be cleared away in such places so that a driver can see another vehicle before it is nearer than at least 75 feet. This does not necessitate the destruction of the shrubbery or trees, but merely a thinning out of the growth.

MONTREAL CONTROLLERS REFUSE TO PERMIT AQUEDUCT INVESTIGATION.

Despite the request made by the Montreal city council that members of the Canadian Society of Civil Engineers be asked to report gratuitously upon the aqueduct enlargement, and despite the fact that prominent Montreal engineers had so offered to report, the Board of Control has again refused to allow such an investigation to be made. One of the controllers stated that the only difficulty was that the Board were unable to decide unanimously just who would make the investigation. But whatever may be the reason, the fact remains that they have again refused to permit the investigation.

Meanwhile, Controller Villeneuve has issued a lengthy report upon the aqueduct, securing his statements from the replies which he received to the questions noted on