

Professor A. B. Coleman writes:—

"I have read with interest your letter in regard to waterways West of Lake Superior and thoroughly agree with your own views and those of P. cf. Willmott. In earlier years, when in the employ of the Bureau of Mines of Ontario, I canoed over practically all the routes between Lake Superior and Lake-of-the-Woods, and can testify that there is plenty of water for a barge canal and that the amount of excavation for canal purposes would be comparatively small. There are so many lakes and navigable rivers on the route that the amount of actual canal to be constructed would not be great. Lake-of-the-Woods touches Manitoba, so that the wheat fields of the West would be closely approached by a canal reaching the lake.

It is rather surprising that these waterways, chosen as a route to the West, by the Dominion Government under Mackenzie, should have received so little attention of late years."

EFFECTS AND COST OF WESTERN WATERWAYS.

The effect of even a small waterway west of Lake Superior may be illustrated from the results which followed from the construction of the Erie Barge Canal from Buffalo to Albany in the state of New York. On this point, the **Hon. Chas. E. Townsend of Washington, D. C., Chairman of the Senate Committee of Coast and Insular Surveys**, writes as follows:—

"The Erie Canal, of course, has been in operation a long time, and that it has reduced railroad rates at least one half of what they would have been had it not been for this competition, is practically conceded."

This is in face of the fact that the Erie Canal has only a narrow channel of seven feet depth, and a capacity for barges of 250 tons, that the banks of the canal are of earth, and the towing by teams is comparatively expensive, because necessarily slow, in order to prevent wash on the banks.

The cost of such a waterway between Lake Superior and Lake-of-the-Woods is referred to on page 39 of a Government Report issued in connection with the International Waterways Commission in 1906, by **J. G. Sing, C. E.** Engineer in charge of the Dominion Public Works Department in Toronto, as follows:—

"In speaking of the canalization of the waters between Lake Superior and the Lake-of-the-Woods, I find, upon reference to the report of the engineers who made the survey, that there are 311 miles of navigable waters between the summit near Lake Superior and the Lake-of-the-Woods, and by the proper arrangement of a series of stop-log dams, and the construction of locks, these waters can be fully utilized for transportation purposes. The navigation, as proposed, would entail very little canal work, as the cutting would not amount to more than one mile in the entire distance of 311 miles.

In the development of this route, there is, under the present natural conditions, plenty of water, if conserved judiciously, for feeders, but it would not be safe to allow a diversion of any portion of the flow in an opposite direction to that intended by nature.

The total cost of opening up this route has been estimated at \$1,500,000, by the engineers who made the survey.