

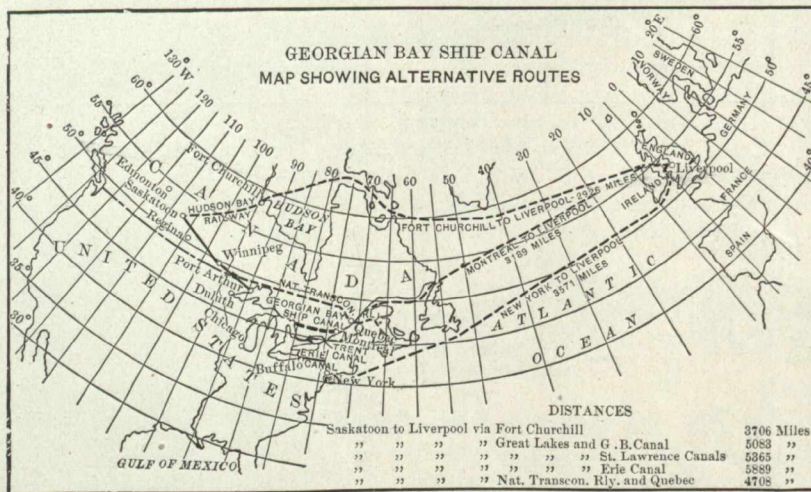
about half a century ruled over well nigh half the continent; from motives of policy that corporation closed up the route via the Ottawa River and sent all its traffic via Hudson's Bay in order that the North-West might be forgotten and the trade monopoly that had been created by King Charles II. perpetuated. The maps of the continent will, however, bear witness forever to the energy of the men of the North-West Company who named the lands by their own names, and who, as the pioneer Canadian engineers, were first to open Lake Superior to through traffic by their canal construction at Sault Ste. Marie.

After the conclusion of the War of 1812, the great future of the Western plains and the importance of the Great Lakes to their commercial development were recognized by both Briton and American. The State of New York, under the inspiration of De Witt Clinton, built the Erie Canal, and almost simultaneously the British Government built the canals along the lower Ottawa River and the Rideau and commenced work on the navigation of the Trent River. With the construction of the Rideau Canal began the rise into importance of the city of Ottawa, and in 1837 its merchants sent out the first expedition to study the possibilities of the Georgian Bay route for canal construction, the examination being made by Messrs. John McNaughton and Chas. P. Treadwell. Their report was favorable, but public interest at the time was centred on the betterment of the St. Lawrence route, and the carrying out of the improvement of the latter, on the broad lines suggested by Colonel Philpotts, R.E., in his historic report to Lord Durham, occupied the

level of Lake Nipissing should be raised until that ample lake became the summit level, a reasonable proposal in times when there was neither settlement nor improvement on its now busy shores.

Mr. Shanly's work was continued and completed in 1860 by Mr. T. C. Clarke, who estimated the cost of construction of a twelve-foot waterway at \$12,057,680, the decrease in the estimate being largely due to the adoption of considerably lower unit prices for the necessary excavation. Mr. Clarke favored, where possible, the use of canalized river in preference to canal. The feasibility of the project was now established beyond question; it remained only to demonstrate that there was a commercial need sufficiently great to justify the expenditure called for. No such need existed in 1860, and up to the present day the volume of traffic that will be carried by this waterway has been, and is, a matter of controversy.

From 1860 to 1890 the attention of the Canadian people was fully occupied with projects of national importance, the Confederation of the Dominion, the construction of the Intercolonial and Canadian Pacific Railways and the opening up of the fourteen-foot navigation from the Great Lakes to the Atlantic via the St. Lawrence River being the most prominent undertakings that were completed or well advanced during that period. Agitation in favor of the construction of the Georgian Bay Ship Canal, however, recommenced about 1890, mainly on the part of promoters and contractors with headquarters in the city of Ottawa. Mr. T. C. Clarke, who had for long been one of the principal figures in the



Map showing Alternative Routes between Western Canada and Europe.

energies of the Canadas, as they were then called, until 1850.

The following decade, 1850-1860, witnessed the first great era of railway building in Canada, but although the ablest and most farseeing of Canadian engineers had realized at that time, and were openly stating, that the day of the canal as a general system of transportation had passed, the public was agitating for further canal construction. As a result of this agitation Mr. Walter Shanly was commissioned by Parliament to make a report upon the construction of a canal by the Georgian Bay route. The result of his investigation was made public in 1858. There was then no Canadian traffic to be carried on such a waterway, and west of Pembroke there were but few people resident along the route. The absence of any commercial reason for the immediate construction of the canal, other than a hope of diverting American traffic from American routes, perhaps accounts for the fact that the appropriation made did not provide sufficient funds for the completion of the surveys, and Mr. Shanly's report, was, therefore, somewhat of the nature of an interim report. The estimated cost of construction of a ten-foot waterway was given by him at \$24,600,000, the general principle of his design being the cutting of canals at all points not already navigable, in preference to the canalization and regulation of the rivers. The problem of the summit level was met by Mr. Shanly with the bold suggestion, worthy of his great reputation of an engineer, that the

American engineering world, was again called upon to report. In 1898 he recommended the adoption of a barge canal, with fourteen-foot depth on the lock sills, but questioned the practical utility of any such waterway in view of the small amount of Canadian traffic on the Great Lakes. He modified his earlier plans by abandoning the idea of raising the level of Lake Nipissing, thirty miles of the road-bed of the Canadian Pacific Railway and the town site of North Bay lying within the flood-line contour, and he proposed instead the lowering of the small summit lakes, Trout Lake and Turtle Lake, to the level of Lake Nipissing.

The idea of the navigation of the Great Lakes by ocean-going vessels has always been a most attractive one, and for over a century it has found many enthusiastic advocates both in Canada and in the United States. It was the basis of Colonel Philpott's report in 1840, the *raison d'être* of the international "Deep Waterways Commission" of 1896 and the underlying principle of the early designs for the Georgian Bay Canal. In more recent proposals, however, it has been recognized that the conditions of navigation upon the ocean are so different from those which obtain on the Great Lakes that the same type of vessel cannot be economically used in both services. The purpose of the Georgian Bay Ship Canal as now projected is to bring the lake carrier to a point where she can trans-ship directly into the ocean liner. As a result

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