

ed is designed without reference to the St. Lawrence improvements, and the recommendations of Mr. Shanley in relation to the Welland Canal, were also made without regard to the Caughnawaga report of Mr. Jarvis. The whole contemplated system, if that can be called a system which has so many disjointed members, thus appears somewhat crude and ill digested as it now stands.

#### OTTAWA IMPROVEMENTS.

Considerable attention has lately been directed to the valley of the Ottawa, as destined to afford an avenue for the western trade, and the Provincial government has undertaken a survey of the route for the purpose of ascertaining its capabilities, and the possibility of constructing a canal navigation through French River, Lake Nipissingue and the Ottawa to the lower St. Lawrence. The survey has made some progress under the direction of Mr. W. Shanley, from whose *ad interim* Reports published with the reports of the Board of Works, there appears to be no great difficulty in uniting the waters of French River with those of the Ottawa. Speaking of Lake Nipissingue he says:—"The ridge separating its waters from those of the Ottawa can not be looked upon as a formidable barrier to their union, when it is known that a cutting of three fourths of a mile in length by twelve feet in depth would cause the upper waters of the *Mattawan* now tributary to the Ottawa, and more than 200 feet deep, to flow into Lake Huron by way of the French River." It is stated in the same report that the distance of 120 miles from Montreal to Ottawa city commonly known as the lower Ottawa is likely to present the greatest obstacle to the perfection of a ship navigation of the contemplated character. Of the 186 miles from Ottawa to the *Mattawan* River, there are 85 miles navigable in three separate sections for vessels drawing from 5 to 5½ feet water, and forty miles immediately above "Allumette Island" wholly unavailable for purposes of navigation, being interrupted by frequent rapids, and divided by islands into two distinct and tortuous channels, the remainder being more or less available for navigation.

The *Mattawan* from its confluence with the Ottawa ascends nearly due west for 40 miles to Trout Lake, at which point it is within three quarters of a mile of "La Riviere de Vase" a tributary to Lake Nipissingue, whence the distance to the mouth of French River is about 80 miles through a route according to Mr. Shanley's observation "singularly facile of adaptation to the purposes of deep navigation."

The whole distance from the Georgian Bay to Montreal by the Ottawa route will be about 430 miles, and as Lake Nipissingue which it is contemplated to make the summit level is 700 feet above the level of the sea, and 106 feet above Lake Huron, the total lockage will be 807 feet.

No sufficient data has as yet been provided to form the basis of a reliable estimate of the cost; it must necessarily be very large; if the cost of the St. Lawrence improvements is taken as a standard of comparison, and a due allowance made for the very great amount of Lockage, the probable cost will not be extravagantly stated at \$25,000,000.\* Its capacity for transport of

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\* Since this article was written, Mr. Shanley's final Report has been printed in which the cost of the Ottawa improvements is estimated at 24,000,000 dols.