

450 miles nearer market than the southern one. This shows a marked advantage in every section of the journey in favor of the Ottawa route.

The following comparison of the four practicable ways of connecting the Hudson with the lakes shows the distance by the several routes:

DISTANCES—CHICAGO TO NEW-YORK.

	Canal.	Lake and River.	Total Miles.
1 Via Ottawa and French Rivers and Lake Champlain.....	120	1,228	1,348
2 Via the Erie Canal and Hudson River.....	350	1,065	1,415
3 Via Welland Canal and Erie from Oswego.....	230	1,215	1,445
4 Via the St. Lawrence and Lake Champlain.....	163	1,441	1,604

Compared with its competitors as a through route from Chicago to New-York, the Ottawa will be seen to be 250 miles shorter than the St. Lawrence, and to have 43 miles less of canals. The lockage is less on the St. Lawrence, but not sufficiently to counterbalance so great a difference in length and quantity of canalizing. The route via Oswego is 100 miles longer than the Ottawa route, and has 110 miles more of canal, while the Erie route from Buffalo is 70 miles longer and has 230 miles more of canal. Counting one mile of canal navigation as fairly equivalent to three miles of open river and lake in point of expense, time occupied, &c., the Ottawa route would be equal to 1,588 miles, that via Oswego to 1,905 miles, the St. Lawrence to 1,930 miles, and the Erie to 2,115 miles of lake and river navigation.

In a report prepared under the instructions of the Canadian Government some years ago, and based on careful surveys, T. C. Clarke estimated the cost of completion of a twelve-foot channel from Georgian Bay to Montreal at \$12,000,000. Other plans have been submitted involving larger outlay. But one of the most recent estimates sets the outside figure of the necessary expenditure at \$15,000,000. This would complete the link between lake and ocean traffic, and give the shortest possible grain route. To connect New-York with that system would require the construction of a canal thirty-two miles in length, from Lake St. Louis, on the St. Lawrence, to St. Johns, on the Richelieu River, at the level of Lake Champlain, and the enlargement of sixty-six miles of canal between Lake Champlain and the Hudson. Should the Hudson River be used to a greater extent in the formation of a deep channel, so as

to lessen the amount of canal required at this point, the advantage of the Ottawa route over the Erie would be the more increased.

Surveys were made years ago for a canal connecting Lake St. Louis with Lake Champlain. In a recent article in The Albany Times-Union, Col. John B. Riley, United States Consul General at Ottawa, after careful examination of the various reports, estimates the cost of completion of a fourteen-foot channel at \$7,500,000. The estimated cost of enlargement to fourteen feet depth of the canals from Lake Champlain to the Hudson being \$15,000,000, a total expenditure of \$37,500,000 would complete and connect with New-York the Ottawa highway for water traffic from the lakes to the Eastern seaboard.

The character of the Ottawa River is such as to lend itself readily to the formation of one of the most perfect systems of inland navigation in the world. It consists almost altogether of stretches of deep and still water, interrupted by rapids and falls, which are easily overcome by locks and dams. The only work to be done is in getting from one lake to another. Thus on the route the following, besides smaller lakes, are passed through: Lake St. Louis, 13 miles in length; Lake of the Two Mountains, 25 miles; Deschênes Lake, 27 miles; Chats Lake, 19 miles; Coulonge Lake, 20 miles, and Lake Nipissing, 40 miles, making a total of over 140 miles. For the most part these lakes have a channel depth of from 20 to 30 feet at low water, very few spots having as little as 14 feet.

Long stretches of the river, also, are equal to the very best lake navigation. Such a one is that part known as Deep River, nearly 30 miles in length, very straight, from 1,000 to 2,000 feet wide, and of very great depth, said to be over 100 fathoms in some places. The shores at this point are bold, and the scenery resembles that of the Saguenay on a small scale. Everywhere, by means of dams, a slack-water navigation of sufficient depth can be more readily and cheaply obtained than on any other route. Competent engineers say that the difference in cost between an eighteen-foot channel and a nine-foot one would not be so great as in ordinary cases, and that, if made for the latter, probably 75 per cent. would be available for the former without further improvement.

Another point is that the Ottawa is a