

grain arrives. There is no speculative market at Montreal, so that the Manitoba shipper lacks this sort of protection at that port. Moreover, the longer duration of the voyage to Montreal increases the risk of a bad turn in the market; it also represents an extra loss of interest on the wheat while in transit.

In the next place, & this is perhaps the chief reason, it is usually cheaper to use the American route. The Manitoba shipper has no sentiment in his soul; the sole question with him is how to lay down grain at Liverpool at the lowest cost. There is not much difference between the cost of getting it to Montreal & the cost of getting it to New York, Boston or Baltimore. But the objective point is Liverpool, and it is almost always cheaper to get it to Liverpool via New York than via Montreal, because, as a rule, ocean rates from New York are lower. There are more steamship lines at New York & Boston than at Montreal, and greater competition among vessels of greater carrying capacity. At Montreal he is in danger of being "held up" by a sudden demand for increased rates, especially towards the close of the season; consequently it is difficult for him to know in advance at Winnipeg exactly what a shipment for Liverpool via Montreal is going to cost at its destination. Again, at Montreal the grain may have to wait 3 or 4 days till a vessel is ready to take it, & when a vessel does turn up, the facilities & appliances for loading it are not up to date; while if the shipment should miss the last vessel it costs money to store it or send it to Boston or St. John. In consequence of these drawbacks, Montreal is not regarded favorably by Manitoba shippers. There are only a few buyers in Montreal competent to handle the blocks of wheat now shipped from Manitoba, & the number is not likely to increase till the port has been modernized.

These, briefly stated, are the reasons why Montreal has lost the greater part of the Manitoba grain traffic. But it is necessary to a full understanding of the subject that we should look a little beyond immediate causes.

As most persons know, the shipping business on the Upper Lakes has undergone remarkable expansion since a 16-ft. channel between Buffalo & Duluth was obtained in 1882. Prior to 1882 the available depth was 9½ ft. At that depth the route could move only comparatively small shipments, indeed was little better than a local route. The Upper Lakes are now a great through route between East & West, carrying bulky commodities at a very low rate, & what is probably as important, tempering the rates of all the railways running from the agricultural States to the Atlantic seaboard. It is quite supposable that but for cheap lake rates and the effect of lake competition on rail rates, the Northwestern States might not have been able to make wheat-growing pay in the recent era of low prices; in other words, might have stood still instead of adding millions to their population; & that it would have been impossible to bring the iron ore of Lake Superior to the coal of Pennsylvania, Ohio & Illinois—that is, to have made the iron & steel industry of the United States what it is to-day. The old sailing vessel has gone, & along with it the iron steamer, once considered a leviathan. The present type is the steel steamer, with double bottom & triple expansion engines, capable of carrying 5,000 tons of cargo at a speed of 13 miles an hour. One of the steamers lately built for the Bessemer Steamship Company measures 475 ft. over all, & has a carrying capacity of 6,500 tons. The substitution of steam for sails, with the improved facilities for loading, unloading & fueling, has greatly augmented the working power of the fleet, a lake steamer being able to do something over twice the work of a sailing vessel of like tonnage. In a recent report to the Secretary of the Treasury, Mr. Tunell, of

Chicago, shows that in this way the carrying power has been increased 2½ times since 1885. Formerly 15 or 16 round trips were considered a good season's work in the ore business between Lake Superior & Lake Erie ports, whereas 22 round trips are now usually made. On June 30, 1897, the gross tonnage of the steel vessels on the lakes was 490,000 tons. The wooden tonnage was 885,000 tons. Steel was the material used in the construction of eight-ninths of all the tonnage built last year. In 1897 the freight received & shipped at Buffalo, the eastern terminus of deep-water navigation, exceeded 10,000,000 tons. The shipments of coal from Buffalo exceeded 2,400,000 tons, the receipts of grain & flour over 200,000,000 bus. The aggregate tonnage of freight carried on the upper lakes was 30,000,000 tons; the quantity going through the canals at Sault Ste. Marie in a season of 230 days being about twice the traffic of the Suez Canal in 365; while the traffic which passed up and down the Detroit River is said to have exceeded the foreign & coastwise traffic of London & Liverpool combined. It is hard to realize that it is only 69 years since the first American vessel was launched on Lake Superior, & since the first vessel arrived at Chicago from the Lower Lakes. "On that occasion all the male inhabitants of the village, including the boys, numbering nearly 100, assisted in dragging the craft across the bar." The village has now 1,500,000 inhabitants, & 30,000,000 people, about the population of England & Wales, dwell in the eight States bordering the Upper & Lower Lakes.

As said, the period of greatest expansion dates from 1882, when a 16 ft. channel was obtained. Since then the centralization of industries, with the concentration of population in large manufacturing centres, has been going on with considerable rapidity, & the process has undoubtedly been hastened in the watershed of the Upper Lakes by the ease & cheapness with which food & raw materials are carried long distances from the place of growth & extraction to the place of consumption & manufacture. The huge steamers bring down grain, flour, iron ore & lumber, & carry back coal, salt, building material, & heavy factory goods, thus effecting an exchange between East & West of the coarser staples which the railway could not effect at anything like so low a cost. Now, however, a 21 ft. channel is all but completed. Shortly before his death, General Poe, of the U.S. army engineers, who had charge of the St. Mary's Canal & other improvements, said, in a report: "The increase from 9½ to 16 ft. brought about a truly extraordinary development of lake commerce, the result being most notable, perhaps, in the character of the vessels employed. Give the commerce a channel from Buffalo to Duluth, that shall be navigable on a draft of 20 ft., & it needs no prophet to foretell a more wonderful growth still." I suppose it is safe to say that steamers carrying 7,000 tons of cargo, or more, may be looked for so soon as the harbors are made deep enough to accommodate them; that, low as they are, rates have not nearly touched bottom, nor can any limit be set as yet to the development of a commerce already of colossal proportions.

Unfortunately, the St. Lawrence route lies outside the deep-water area. There is only 14 ft. of water in the Welland Canal, & an available depth of only 9 ft. in the canals below Kingston. About all the U.S. Government has had to do is to improve the lakes themselves; whereas we have had to dig a series of canals aggregating 70 miles in length past the rapids of the St. Lawrence & round Niagara Falls, at a time when we have been building a trans-continental railway, & carrying on other burdensome enterprises. There is no prospect, at present, at any rate, of our being able to deepen the Welland to 21 ft.

That is a task we might, perhaps, have undertaken had it not been deemed advisable to deepen the canals below Kingston in order to obtain a uniform depth of 14 ft. from Lake Erie to Montreal; but to do the two works simultaneously would be a heavy strain. Sanguine persons believe the U.S. will sooner or later deepen the Canadian canals to 21 ft. in the interest, not of our trade, but of their own. Professor Emery R. Johnson, an authority on the subject of American waterways, says in a recent work:

"There has been a good deal of discussion whether the deep water channel to the sea should pass by way of the St. Lawrence, or from the lakes to New York city; but the question seems clearly to have but one answer so far as the U.S. is concerned. However desirable it may be for Canada to have deep-water communication between her western territory & Quebec, Montreal, & her other eastern cities, & however important it may be for Canada to have a water route from Canadian fields, forests, mines & shops to Liverpool & other markets of Europe, the case with us still remains different. Our concern is primarily to connect the Great Lakes with the great cities of the eastern states. These are our chief markets. Trade with England is desirable, but it has only a secondary importance. The traffic on the Welland Canal is comparatively light; in 1890 it was only about ¼ that on the smaller, essentially barge-traffic Erie Canal. The St. Lawrence route would not only have less commercial value for us, but it would increase rather than lessen our commercial & political independence. Our political relations with Canada & England would be injured by such a waterway. We should have about 1,400 miles of coast from which our ocean cruisers & men of war could be excluded. As long as Canada remains a dependency of Great Britain, our commercial & political interests will remain opposed to hers."

At all events, American co-operation is not in sight.

Vessels carrying 175,000 bus. of wheat, or 200,000 bus. of corn, sail into Buffalo from Fort William, Duluth & Chicago. Such cargoes cannot be taken through the Welland. At Port Colborne, the Lake Erie end of the Welland, connection between the Upper & Lower Lakes is broken as effectually as though it was the meeting place of a standard gauge railway with a narrow gauge. The largest cargo that has ever passed through the Welland was probably that of the Algonquin, belonging to Hagarty & Co., of Toronto, which took 67,000 bus. of wheat through last summer. Ordinarily, when a steamer reaches Port Colborne with more than 60,000 bus., she is obliged to lighten; then when she reaches Kingston or Prescott she has to transfer all she has on board to barges, which take it down the 9-ft. channel to Montreal. With 14 ft. of water all the way from Port Colborne to Montreal, rates to Montreal will certainly be reduced. Per contra, the deepening of the Erie Canal, now in progress, will have the effect of reducing water & rail rates between Buffalo & New York, while the rate from Fort William & Duluth to Buffalo is sure to be reduced when the 21-ft. channel is fairly going & the supplementary improvements finished. It is obvious that the advantage to Montreal in having 14 ft. of water from Lake Erie will not of itself enable her to recover the Manitoba grain traffic from Buffalo & New York under the new conditions making for lower rates by the latter route.

My own notion is that it was a mistake for the Government to deepen the canals below Kingston. True, it had been decided on by the former Government; nevertheless, I venture to think it would have been better to spend the money in deepening the Welland to 21 ft. The Chief Engineer of the Public Works Department tells me there was no engineering difficulty in the way. Nothing in