

feet. So also the two differ as to the length of the locks, which Mr. Keefer places at 110 feet and Dr. Brymner at 120 feet, the first probably allowing for the opening of the gates. Col. Mann proposed to replace Mill rapid and Cascades canals by one canal across a neck of land from the St. Lawrence to the Ottawa about 900 yards above the Cascades, and 300 yards wide. His suggestions were accepted and work was commenced, the work being completed by 1805. Old documents enable us to estimate the depth of the enlarged canals at $3\frac{1}{2}$ feet, and Mr. Keefer places them at four feet. Rock cutting was here encountered, the first of importance since the ill fated French Lachine Canal.

The Durham boat was introduced after the war of 1812, and compared with its predecessors it was a leviathan. How the habitant must have swelled with pride to see a ship ascend the St. Lawrence with ten times the capacity of the early batteau. The Durham boat was flat bottomed, with keel and centreboard, rounded in the bow and decked at bow and stern with a wide gunwale running its entire length for purposes of poling. Its capacity was 350 barrels of flour, or 35 tons. To accommodate these vessels it was necessary to further enlarge the canals in 1817, to 12 feet between the gates. By that time nearly 900 batteaux passed the canals annually, and in 1833 some 863 batteaux and 612 Durham boats carried the trade of the Upper St. Lawrence. In early days the western country had to be fed from the east. Where now waves the golden wheat of Manitoba the traders were exposed to starvation if the supply boats did not arrive at the grand portage in due season. The first shipment of wheat from Chicago did not take place until 1838. This must be borne in mind in connection with what I now propose to review, the struggle for supremacy on the Great Lakes between the navy and the fleets of commerce. Before describing this struggle, however, it will be desirable to review briefly the history of the great fur-trading days, in order to show the volume of commerce that depended upon the result.

In 1802 the Montreal North-West Fur Company had 117 trading posts, 20 partners, 161 clerks and interpreters, 877 common employees in addition to 100 free hunters and 540 canoe men on the Ottawa. The London sales of 1801 were £371,139 stg. and they paid £22,000 stg. in duties. In 1780, according to Charles Grant, the trade from Montreal was from 90 to 100 canoes, and the furs brought down were estimated at £200,000, or \$8 per capita of the population. Each canoe load cost £300 stg. in England. The freight charges across the Atlantic were fifty per cent. To transport it from Montreal to Machillimackinac cost fifty per cent. more on the original price, so that each canoe load was valued at over £700, much over \$3,500 as compared with the present day; no inconsiderable treasure to trust to the rush of impetuous rapids day after day for weeks at a time. The work of the voyageur was highly specialized. His skill has not entirely passed from amongst us, but it is not now an integral portion of the trade of the day. He engaged as "devant" or in the bow, or Gouverneur, that is as steersman, or if not quite so skilled as the others as milieu or in the midships seats. The pole was quite as much in vogue as the paddle, and anyone using it had to keep the bow true against the current or the boat would be swept round and capsized, perhaps where no man could fall and live.

In connection with cost of transportation I may say that the Hudson's Bay route was 25 per cent. cheaper to the interior in those early days, that is it was 75 per cent. of the original price. Some three hundred men were employed west of the carrying place, men who exposed

themselves to hostile Indians, to rapids and starvation so keen that cannibalism was not unknown among them. They straggled from the peaks of the Rockies, from the shores of the Saskatchewan and from the far north, even from the Mackenzie River, back to the carrying place between 10th June and 10th July each year, laden with rich furs, but with scarcely a mouthful of food, and if the supply canoes were delayed the results were terrible to think of. It was this that made the conflict for supremacy upon the lakes so bitter, and which ultimately led to the triumph of the merchants.

In 1755 the British built two sloops at Oswego on Lake Ontario, naming them after lake and site respectively, and in the same year General Shirley placed a sloop and schooner, each of ninety tons, on the same lake in addition to a number of whale boats and galleys, which we might call batteaux. After the Conquest merchants began to establish themselves to tap the rich fur routes, and Oswego was for some years the most important fur trading post on the continent. The Lake Superior copper mines attracted the attention of English capitalists and in 1770-71 a sloop of forty tons was built at Point aux Pins and sailed to Ontonagon. There was no difficulty in opening up the fur trade, so far as navigation of the lakes was concerned until the outbreak of the United States revolution, almost immediately after which all private trade on the lakes was prohibited, and merchants' goods were permitted to be transported only on the king's ships. One may grumble, but should not unduly complain at the hardships which war imposes upon trade, and the merchants of Canada, while very much put out by the new regulation, bore it with some equanimity until peace was restored, but while the number of ships of the navy was reduced to two ships on each lake after the war, the authorities refused to accord the merchants their former rights of free navigation. Then the storm broke. The merchants did all in their power to make the authorities see reason. They even offered to have their vessels commanded by a navy officer and pay his salary. Haldimand, on the other hand, thought it sufficient to place a third war vessel on Lake Ontario and Lake Erie. It will save time to quote Haldimand's own words in connection with the matter:

"The navigation of the Great Lakes by the king's vessels only," he said, "is an object so nearly connected with the entire preservation of the fur trade, that I have withstood various applications for building and navigating private vessels and boats upon the lakes; the rivers and outlets from them to the American States are so numerous that no precautions which could be taken in that case, would be effectual in preventing a great part of the furs from going directly into the American States. . . . I would therefore recommend by all means that a sufficient number of king's vessels be kept up on the lakes, and all other craft whatever prohibited not only for foregoing reasons, but in all events to preserve a superiority upon the waters of that country."

That sufficient of the king's ships were not kept up on the lakes is indicated by the fact that in 1784 the goods intended for the interior trade were so long delayed at Kingston and Niagara that they could not be sent forward, while on the 16th July, 1785, there was little, if anything, short of 100 batteaux loads of goods to cross Lake Erie, besides thirty or forty loads at Kingston. Some of these goods had been awaiting transport for twelve months. Benjamin Frobisher put the case of the merchants in a nutshell when he wrote, sending a memorial: "All the company (N.W. Fur Co.) wishes for is on any terms to be left to the management of its own business." The mer-