COMMERCE OF THE INLAND SEAS.

Wherever the beginnings can be traced, we see that waterways have determined the lines of exploration, of commerce and of civilization as they advanced. The toast invites to a necessarily hurried review of the inland marine of our great lakes, where results and their causes may be clearly followed.

In a general way we are familiar with the romantic story of the early French explorers and missionaries; how they came up the St. Lawrence in their canoes and batteaux and pushed their way into these upper waters, once using a schooner of some ten tons burden, and traversed these magnificent lakes, surrounded by a trackless wilderness, the home of wild beasts and savage men. So short a time ago this was that the physical remains and relics bring us almost face to face with those times and men, whose memory is preserved all through the nomenclature of the lake region.

Before the Sault canal opened the shores of Lake Superior and that great northwest back and beyond, it were little more than a hunting ground, more or less happy, according to the nature and frequency of the supplies furnished the Indians. And yet there are men here to-night who remember perfectly the opening of the canal in 1855, perhaps some who took part in it. The first vessel to go up the lakes was the "Griffin," a small schooner which carried La Salle from the Niagara river to Green Bay in 1679. She was lost on her return trip. The French and the English used small vessels in the war which resulted in English acquisition of Canada Some of these men-of-war in miniature took part in the siege of Detroit by Pontiac in 1763.

Following the period of exploration, in 1797 a small vessel was built at Erie for commercial uses, but she broke the market on her first trip. There was no commerce for her above, and she was drawn around the falls to Lake Ontario. Beginning in 1805, Buffalo, after twelve years, had more than one-fifth of the total tonnage of Lake Erie, including Detroit, but she had only seven vessels of an average of sixty-five tons. A vessel of 100 tons elicited the criticism in 1810, that they were building vessels too large for the demands of lake commerce. In 1818, the steamer "Walk-in-the-Water" was built at Black Rock. She could run down to Black Rock, but had to be assisted up stream by yokes of oxen. The commerce of the lakes began in carrying west provisions, supplies and grain, with many settlers. By 1840 they had turned the tide of trade and the products of the west were going east, but the Falls of St. Mary presented an effectual barrier to navigation at the Sault, and commerce with Lake Superior was retarded in consequence. A few vessels were engaged there, mainly in the fur trade, until the princely deposits of copper were found near the Michigan shore and began to be shipped east, carried by various means around the Sault. In 1847 a lighthouse was erected on Lake Superior. When the iron deposits of the Marquette district were discovered, continuous water transportation became a necessity; further development of the Lake Superior region without it was impossible, because the cost of transportation was prohibitive. Some public spirited man secured a grant of land, and, by private enterprise, began the building of the Sault canal. As an instance of the spirit which pervaded the undertaking: While Charles T. Harvey was at work, disappointments and delays having dampened the ardor of the men furnishing the capital, the late J T. Whiting, then located at the Sault, went to make a personal report for their encouragement, and to do it travelled in the dead of winter, on snow shoes, over 400 miles. How could an enterprise fail with such men pushing it? That their foresight equalled their resolution is shown by results. Twice has the improvement been enlarged in forty years. The mighty lock soon to be finished, will stand as as a monument to the man who, by his appreciation and intelligent advocacy, by his farsighted recommendations and interest in the subject, has done more in his private and official capacity to advance lake commerce than any other man, Gen. O. M. Poe, of Detroit.

The steady growth of freightage through the Sault canal brought it in 1894 to 13,250,000 tons, in 234 days of operation, exceeding that through the Suez canal, in the 365 days of that year, more than five million tons. When there was continuous water transportation to Lake Superior, with the copper and iron districts of northern Michigan under development, and the country back of Lake Michigan opened up, lake commerce as we now know it, had commenced. We had a fleet of some two hundred thousand tons, with a value of something like $10,000,000.

To those who fear that the primal use of waterways was the object of their creation; that having explored and opened up the country their value was exhausted, I say that not only has there been a constant increase in lake commerce and its attendant industries, but that increase has never been so marked and rapid as in the past ten years; that here, as throughout the world, internal waterways have never in their history received the attention or commanded the respect they do to-day. In connection with a statement that 90 per cent. of the city population in this country, in cities of over ten thousand, is found on waterways, I heard a bright man say that it was a dispensation of Providence that placed the waterways and made the rivers to run so conveniently along in front of big cities, which are mere aggregations of men for transacting commerce.

The lakes, with their nearly one hundred thousand square miles—more than one-half the fresh water surface of the globe—draining more than one hundred and seventy-five thousand square miles of territory, with more than three thousand miles of American coast line, border on eight States, with a population, by the last census, of 26,000,000, having increased almost 25 per cent. in the last decade. On the lakes there were twenty-six cities and towns of over one thousand population, aggregating nearly three millions; six of the cities had each a population of over a hundred thousand; nearly one-eighth of the population of the eight States was located on this water system. It is common knowledge that the lake region has increased during the five years since the census quite as rapidly as any other portion of the country in all the material interests, measured by numbers or volume of business transacted.

In forty years since the Sault canal opened, which I take as the beginning of the second period in the history of lake commerce, the tonnage of the lakes has increased six-fold in mere aggregate capacity of the various craft. The measurement of vessels of every description on the great lakes June 30th, 1894, was 1,227,000 tons. This was 27 per cent. of the total steam tonnage of the United States. The total of the United States has remained stationary during the past ten years, while in the same time that of the lakes has increased about 500,000 tons. The lakes for ten years back have built more than one-half the entire steam tonnage built in the United States. The average size is larger here than in the ocean marine. On June 30th, 1894, the lakes had 359 steamers of more than one thousand gross tons burthen, amounting to 634,642 tons. The business fleet, if I may so call it, of standard vessels engaged in carrying, is probably less than a million tons, and if it has not doubled in the last ten years in mere total capacity of vessels, the change from sail to steam, the increased speed of steamers, deeper channels and better facilities for rapid handling of cargoes, have probably quadrupled the actual efficiency of the fleet, and the best estimates place the freightage carried past Detroit last season at easily more than thirty-five million tons.

We get actual statistics at the Sault Canal, and there is every reason to suppose that they are fairly characteristic of the general increase of lake commeree. In 1884 the freight movement through the canal was three and one-half million; in 1894, thirteen and one-quarter million tons.

The evolution of the modern lake carrier should be familiar to you, living in one of the great shipbuilding States. The average depth of water through the Sault last year was under fifteen feet, and in other through trades, say, sixteen feet. Steel ships are building in Michigan, Ohio, and Illinois, to carry 4,000 tons on this draught, and 6,000 tons on a draught of eighteen feet. Their speed is fourteen miles an hour or more; they can load such a cargo of ore in a few hours, discharge it in one day, and load a cargo of soft coal in another; or, in the grain trade, they can load a cargo of 100,000 bushels of wheat in a few hours, take it into Buffalo, discharge the wheat, load a full cargo of hard coal, take on 150 tons of fuel, and be outside again, all in twenty four hours. This business fleet, taken as a whole, is not surpassed in any trade in the world.

The Lake Superior region in 1890 produced over 9,000,000 tons of iron ore, 57 per cent. of the total production and more than 50 per cent. of the total consumption of the United States, the importation being about a million and a quarter tons. Without cheap water transportation this ore could not have reached the assembling point for materials which go into the manufacture of iron; the seat of the iron and steel industry would have been east of the Alleghenies; the development of the lake States west of Pennsylvania and of western Pennsylvania itself, would have been only a fraction of what it is, while the development of the northwest was absolutely dependent upon it. A congressional report has declared that "The great lakes furnish a highway for commerce which has no parallel in any other country."

To be continued.

A CURIOUS FACT.

While holidaying in that delightful haunt for summer sport, Muskoka, I several times went from Bala for a day's fishing down the Musquosh and Moon Rivers, which form the outlet for the Muskoka lakes. One day a fellow tourist and myself paddled down the Musquosh half a dozen miles, and truly the trip was most enjoyable The rapids and waterfalls are numerous, but the rocks, apparently maintaining their sturdy, proud, horizontal position mile after mile, it resulted that as we went farther and farther down the river the rocks on either side became higher and higher. These towering rocks, through which the chafing stream had for long years been cutting its way, were clothed with a thick growth of pine and many other varieties of wood, and the scenery was indeed picturesque.

To my mind there is no sport in trolling for fish by rowing or paddling yourself. If I cannot fish without having some one along to propel the boat, I don't want to fish at all. I like to be free to feel that peculiar sensation that comes over a fellow when a fish "takes hold," and challenges you to a tug of war. So when I came upon a spot below one fall where the water, after running swiftly through a narrow gorge, shoots out into a little bay, I untangled my line, attached the spoon, and cast out. The current was sufficient to take the line a good distance out, and then I would haul in, hand-over-hand, and cast out again.

The spot, to me, looked fishy (I don't mean this word in the colloquial sense, which I have seen given in some dictionary as "extravagant, like some stories told about fish, or by fishermen; improbable." I mean, it looked as if there were some fish there). Each time I threw out the line I expected a fish would take hold. I waited long and patiently, but my faith did not give out. Then I began to look about for a good place to land the fish when I should get it. No better place than the one at my feet showed itself—although it had its disadvantages. I recollected how often I had lost a fish because in landing him he got his tail on the rocks, and by a sudden "flop" on the hard fulcrum, would shake himself free of the tackle. Here was a place where all the fish I would catch at that point could "tail themselves loose." There was a ledge of rock shelving out, about a foot under the water, a number of feet. I sighed, but cast out again. This time there was a tug and a jerk. I shouted to my chum:

"I've got one!"

He looked at me from his position down the stream a short distance, but didn't say anything. I thought he showed shamefully little interest. The fish tugged and dived, went sideways and dived again. I pulled in steadily, and at last could see him. Recollecting the danger of getting him past that ledge, I stepped into the water, but slimy rocks and leather boots allowed the beggar to draw me out, will I—nill I, towards him. That wouldn't do, so ashore I went again. Raising my hands up high and pulling in the line some more, the lunge came slowly in. Now he was almost on the ledge. A moment more he *was* on it. Then happened what I had expected, but hoped wouldn't. He flopped. The hook came out of his mouth and my heart sank. But, oho! there was another tug! I hauled in again, most excitedly. There was no more flopping. The hook was *in his tail*, and he gave himself up—a sixteen pounder.

My friend was a kodak fiend, and I have a photo which verifies this whole tale.

A. W. L.

Toronto, August 17th.