

MARINE PROGRESS ON THE LAKES.

In the papers which have thus far appeared in the Monetary Times concerning Old-time Lake Craft nothing has been said about an intermediate stage of navigation on the Great Lakes of America, which may be called the tow-boat stage. This has got rather to have a distant, antique flavor, too.

When, about 1855 or 1860, the grain and coal traffic had become enormous, and that in ore showed rapid growth, sailing vessels were numerous, and detention in the intervening straits by reason of adverse winds came to be a serious matter. In the open lakes, 200 to 500 miles long and proportionately wide, advantage could be taken of wind from any direction by tacking if the wind proved contrary. But in rivers like the St. Clair, or the Detroit, or the St. Mary there was no room for large vessels to tack, and they had to remain in numbers at either end of these busy straits until the direction of the wind became favorable.

A lady who spent sixty years of her married life on the river Detroit reminds me of the great fleets which used to lie at anchor at the western end of Lake Erie, waiting for the "down river wind" to change so that they might pursue their way northward. On one occasion, Mrs. MacLeod says, her husband counted 125 sail of vessels from Kingston, Buffalo, and Cleveland thus detained outside the mouth of the river for a day and a night. They were detained in some cases for days and nights at a time.

In such circumstances something had to be done to overcome delay and demurrage, and tow-boats or tugs came into use to drag the vessels up stream or down. The writer, then a wee chap, remembers well the steamer "Gore," Captain John Sloan, being used among the first for this purpose. An old-fashioned British built paddle craft she was, with dark-colored hull and with a single funnel. The method then pursued was to lash the sailing vessel alongside the steamer, or to lash one on each side. Later on, this plan was abandoned, and vessels to the number of one or two at first, four or more later, were towed astern of the steamer, with intervals of several hundred feet between each. It was soon found that screw-propelled steamers were the handiest for this purpose, and these were built in great numbers in various ports from Chicago to Buffalo. Between 1865 and 1875 a Tug-boat Association or trust was formed for the adjustment of prices and regulating or facilitating traffic. Tugs were used, too, for rafting timber down the rivers from both the Canadian and the American sides of Lake Huron.

Not swiftness so much as pulling power was required in these boats, and some of them were remarkable in this respect. Among the earliest to make a reputation and to induce imitators was the screw tug "John Martin," built in Cleveland with the latest engine, and fitted with "a Philadelphia wheel," as the then novel form of curved blade was called. She drew about ten feet water, had a screw perhaps nine feet diameter, and performed the incredible feat of towing seven laden vessels against a two and a half mile current. Just before her, the favorite of the rivers of the chain was the bewitching little propeller "Hamilton Morton," a low, sharp, swift boat, reputed to be able to make eighteen miles an hour. Painted black, she resembled greatly in outline and style the torpedo boats of the present day, and some vessel captains competed for the honor of being towed by her. Marvellous pullers some of the little craft were. Only 70 to 100 feet in length, they would saucily hitch on to as many as four to six schooners or barkentines at one trip if vessels were plentiful enough or tugs happened at that end of the route to be scarce enough. The route was usually from Lake Erie to Lake Huron; and sometimes if the north wind rose or increased a tug would have to drop one of her vessels so as to make headway against the current with the rest. Vast would be the indignation of the skipper whose vessel was so dropped. "Rude Boreas, blustering railer," was but a summer breeze compared to his blasts of profanity. These tug-boat captains and mates had to be good navigators; but if through the negligence of the man in charge of either tug or tow one

of the deep-laden ships ran aground—as might happen not unseldom at night or in a fog—imprecations would follow of an international width and fulness, for they could be heard all the way across the river. It seemed as if, to quote Milton:

It was that fatal and perfidious bark,
Built in the eclipse, and rigged with curses dark.

After this stage came that of the tow-barge and consorts, which means that a screw steamer, herself of considerable carrying capacity, would be provided with one, two, or three "consorts," which she would tow between upper lake and lower lake. Americans and Canadians were yet in the wooden age of vessel-building when this method was the vogue. These "barges," dragged behind a governing steamer, were of various sorts. Some of them fully-rigged sailing vessels of two, three, and four masts; others "razeed" (from the French word *rasé*, shorn), which is to say, with top masts cut down, leaving only the lower masts, fitted with fore-and-aft sails. Old hulls of steamers were likewise made into barges; their engines and cabins and top-hammer being removed they made roomy carriers of grain if their hulls were not so ancient as to be leaky.

Still, the acme had not been reached—there was a constant pressure for larger boats instead of more of them. Competition from the railways in grain-carrying and the growth of export demand was opening up a large future; therefore owners and masters of floating craft proposed to themselves to "keep up their end." Iron and next steel boats began to be built, consorts as well as steam barges. Cleveland, Chicago, West Superior, and Wyandotte on the River Detroit were presently turning out boats of 300 or 400 feet, whose sternposts and stems were forged in Pittsburgh, their steel sides made of Clyde plates. The tow-barge and consort system was continued, a large proportion of the new steamers built being designed for tow-steamers. But this was a dozen years ago and more, and the increase in the size of freight boats on the lakes has gone on since as fast as, or faster than, Uncle Sam would deepen the waterways and harbors. Washington officials and Congress itself must have often wondered at the stubborn insistence, year after year, of vessel owners and grain merchants, backed up by individual Congressmen from the Lake States, upon more and more millions for lake and river and harbor dredging. Doubtless they have asked many a time and oft: "What sort of traffic is it that so eats up millions upon millions of our appropriations, and still asks for more?" But people as far away as Washington equally with people much nearer the lakes can have no idea of the enormous tonnage of lake traffic until they see it. Very likely the bringing once in a while of a Congressman west to see the unending procession of Detroit river has done good. He could go back and tell the East and South what he had seen, and so educate them about their own country. We know that—

"The Congressman, once on his talking legs,
Stirs up his knowledge to its thickest dregs."

But we once heard one of these garrulous dignitaries, enlightened by the sight and by some predigested thinking over irrefragable figures and palpable facts, launch into a panegyric of that strait which seemed for the moment to make the Suez Canal seem as out of date and commonplace as Baalbec or Palmyra—its traffic as trivial as the trade of Tyre and Sidon. "Thou say'st an undisputed thing in such a solemn way," was the commentary of one auditor of that most A-merican speech (delivered in the United States language). He was only saying in a florid and senselessly boastful way what was quite true, though by no means generally known, namely, that the annual tonnage steam and sail through the River Detroit greatly exceeds that of the Suez Canal. And the former is only an eight months' traffic, while the latter is twelve.

An ingenious shipbuilder on Lake Superior, Mr. McDougall, designed a type of lake carrier known at first as the cigar boat, and later as the whaleback, which, when loaded is almost wholly under water. These boats are found economical, are unaffected by wind and almost unharmed by wave, having everything on their curved and