

## COMMERCE AND PHYSICAL FEATURES OF THE GREAT LAKES.\*

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The constantly increasing importance of the Great Lakes for the purpose of commerce having recently caused considerable public attention on both sides of the Atlantic, it is thought that this paper on the commerce and physical features of these waters, prepared from notes and observations made from time to time during the past fifteen years, and from information gathered, during that period, by the writer, while filling the position of engineer in charge of the Public Works of Canada in the lake district, will be of interest. The average season of navigation on the lakes is about 220 days. In order to give an idea of the extent of the commerce on these lakes, it is shown that the annual average net tonnage for the last five years of the Suez Canal—a world's channel of commerce, and open every day in the year—was 6,983,167 tons; the annual average net tonnage of the lock and canal, at Sault Ste. Marie, for the same period—open only an average of 220 days in the year—was 6,821,062. The registered American tonnage of the lakes, June 30th, was 1,154,878 tons; 1,592 steam vessels, representing 736,751 tons, and 2,008 sail, 418,118 tons. The tonnage has more than doubled in the last five years, the increase being almost exclusively in steel steamships of 1,500 to 2,500 tons register. The number of Canadian vessels on the lakes is 647, tonnage 132,971; valuation, \$3,989,130. The total of coast and inland shipping registered in Canada is 7,153 vessels, of 1,040,481 tons register, valued at \$31,213,430.

The sailing vessel has almost disappeared from the lakes. The square-rigged ship is no longer seen, and only a few of the great cargo-carrying schooners are left. The sailing fleet was succeeded by the "propeller," as it is known locally, with its tow of one or

\*Presented before the Canadian Society of Civil Engineers.