

between the gates, 100 feet wide throughout, with 21 feet of water on the miter-sills, overcoming the difference of level (18 feet) with a single lift, combined with the requisite deepening of the canal. The work of construction was begun, and by the act of August 11, 1888, \$1,000,000 was appropriated for its further prosecution. The estimated cost of the work is \$1,738,865. Deducting the sum expended up to the present time, the estimated amount required for the completion of this improvement is \$3,738,865.

The improvement of the Hay Lake Channel is a necessary complement to the construction of the new lock. This channel leaves the present navigable channel about two and a half miles below the canal, is about 15 miles in length, and rejoins the present navigable channel at the foot of Sugar Island. Its advantage and necessity are that it shortens the distance between the two lakes 11 miles out of 60; that it will allow the passage of vessels of 20 feet draught, and will afford a channel navigable by night, which is impossible by the present circuitous route. The estimated cost of this improvement is \$2,659,115. For this four appropriations have been made since the year 1882, amounting to \$975,000, leaving to be appropriated as requisite to finish the work, \$1,684,115. So that appropriations will be necessary to finish these works as follows:

For the lock	\$3,738,865
For the Hay Lake Channel.....	1,684,115
Total.....	5,442,980

For the last five years the annual rate of increase in the number of vessels and in the quantity and value of freight conveyed through the lock demonstrates that before the present improvements can be completed the lake commerce will be under the most pressing necessity for their use. This assertion is sustained by the following table:

Year.	No. vessels passed through lock.	Freight tonnage.	Valuation.
1885	5,380	3,256,628	\$53,413,472
1886	7,424	4,527,759	69,030,071
1887	8,530	5,494,649	79,031,757
1888	7,803	6,411,423	82,156,019
1889	9,579	7,516,022	83,732,527

This table states the actual freight tonnage. The statistics of the registered vessel tonnage for 1889 are not at my command, but for the year 1888 it was 5,130,659 tons, conveying, as has been seen, 6,411,423 tons of actual freight. The actual freight tonnage for 1889 was 7,516,022 tons, and this, as a basis of estimate, determines the registered vessel tonnage for that year to be about 6,200,000 tons.

A few comparative statements will illustrate the importance of these results. In 1888 the entries at and clearances from the port of New Orleans were, registered tons, entries, 721,128; registered tons, clearances, 727,520; total, 1,448,648. During the same year the registered tonnage locked through the St. Mary's Canal was 6,411,423 tons. The United States expended six and one-half millions of dollars in deepening the channel at the mouth of the Mississippi River and into the Gulf. In this it did wisely. The error was, as here, that the work was delayed