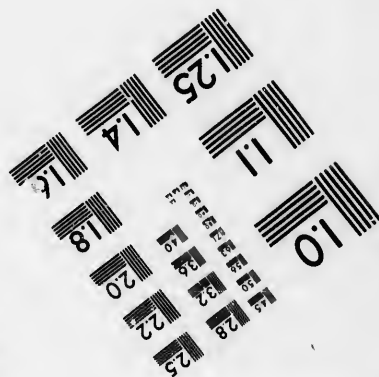
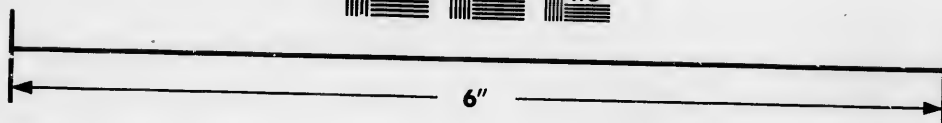
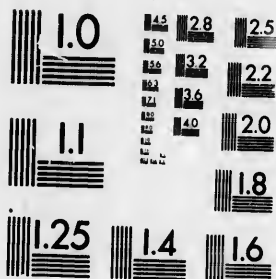


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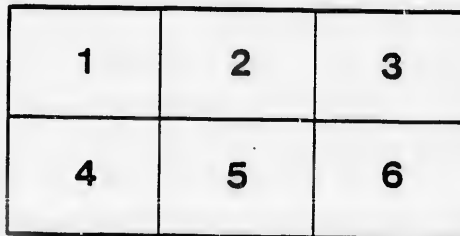
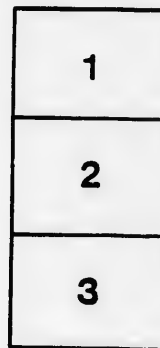
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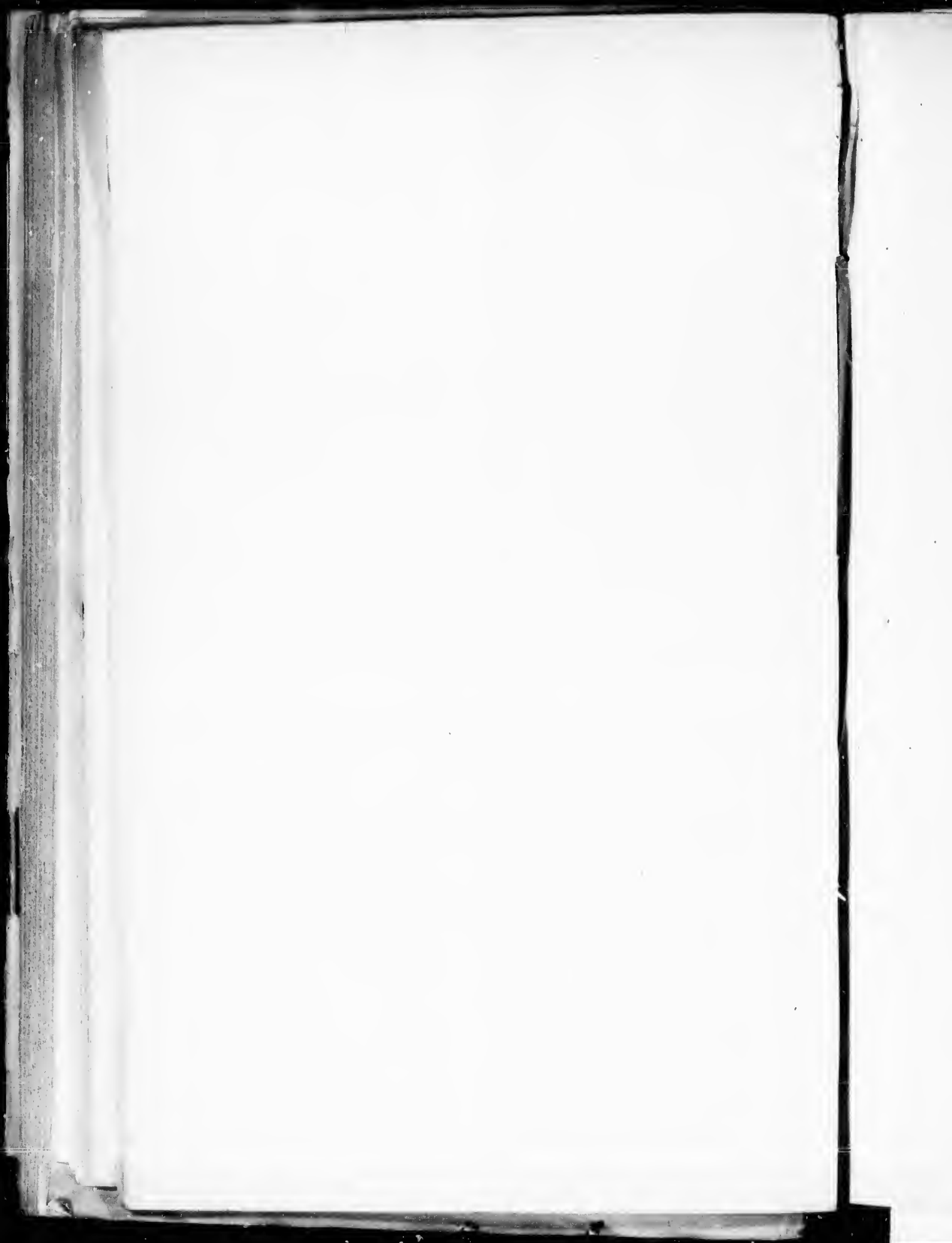
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Am. Reports. vol 2.

THE CLAIMS OF THE NORTHWEST
FOR THE
Improvement of St. Mary's River and Hay Lake Channel.

SPEECH

OF

HON. CUSHMAN K. DAVIS,

OF MINNESOTA,

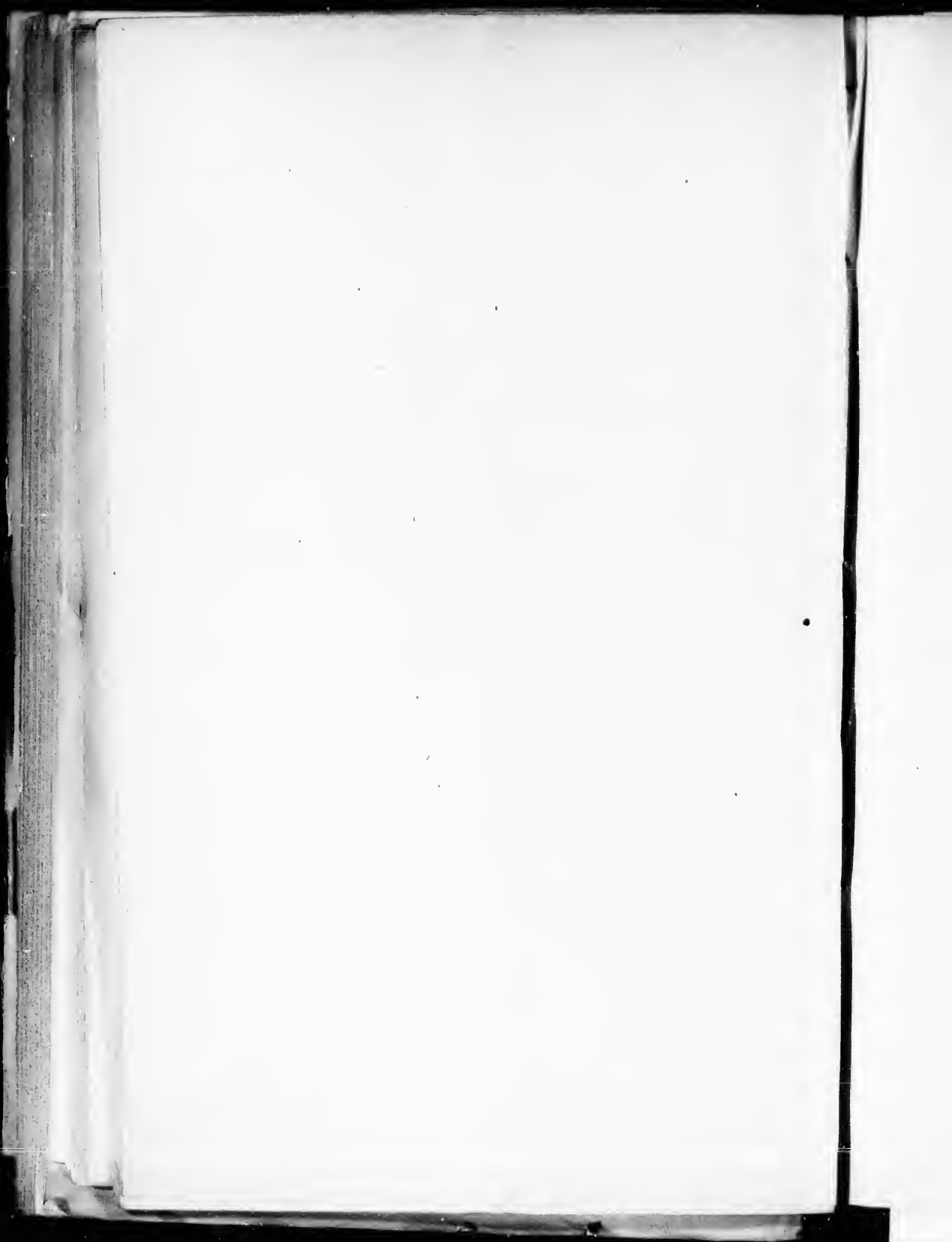
DELIVERED IN THE

SENATE OF THE UNITED STATES,

THURSDAY, JANUARY 9, 1890.

WASHINGTON.

1890.



S P E E C H
OF
HON. CUSHMAN K. DAVIS.

The Senate having under consideration the bill (S. 1631) making appropriations for improving the St. Mary's River and for improving the Hay Lake Channel—

Mr. DAVIS said:

Mr. PRESIDENT: Early in the present session the Senator from Ohio [Mr. PAYNE] presented to the Senate the petition of the Board of Trade of the city of Cleveland upon a subject of the greatest importance to the people of the Northwest. It is a subject which also immediately concerns the interests of his own State and all the communities, domestic and foreign, that have commercial relations with the regions whose products find an outlet at Lake Superior or a market in the territory west of that great inland sea. In a more remote, but scarcely less important degree, it involves the general welfare. It is not merely of present importance. Great as that importance is, a wise consideration of a future that is very near vastly increases it. That subject is the improvements at the falls of the St. Mary's River, consisting of a new lock, and at the same time the deepening of the Hay Lake Channel. The prayer of the petition is that the total amount required for the completion of these indispensable avenues of traffic be at once appropriated and placed at the disposal of the War Department, to the end that the work may be prosecuted to completion within the shortest time possible. Similar petitions have since been presented from the Chambers of Commerce of the city of St. Paul and the city of Duluth.

This matter has been favorably considered for several years by many business interests, acting through their various organizations, in all the States bounded by the Great Lakes. It was the occasion of a convention of the most representative character, convened at the Sault in 1887. That the necessity for the immediate completion of these great public works is most urgent is the matured conviction of public sentiment in the communities whose interests are immediately involved in them. These petitions express their unanimous desire, their pressing need, and tersely demonstrate the justice of their prayer.

It is my purpose to submit to the Senate, somewhat at large, the views which are correctly entertained upon this subject by these great constituencies.

The distance from the city of New York to Duluth, at the head of Lake Superior, is 1,400 miles, of which 800 miles are deep-water navigation, by way of the Great Lakes. The only outlet from Lake Superior is the St. Mary's River, which is 75 miles in length. The fall in this distance is 20 feet and 4 inches, and of this 18 feet and 2 inches are at the falls. The only channel now navigable is, for the first 35

miles below that place, so tortuous that passage through it at night is unsafe and is not attempted. For the remainder of the distance to Lake Huron the navigation is good.

For more than two hundred years this avenue of water communication has been in use by civilized man. The genius of Colbert, who in his lifetime advanced France from the stagnancy of semi-feudalism to predominance in the greater portion of North America and to rivalry with England on the ocean, was operative throughout the vast region that stretches from Quebec to the Upper Mississippi River, and the beginnings of traffic were made along this route more than two centuries ago. In 1679 Daniel Greysolon Duluth thus transported his merchandise from Quebec, and built a trading post near the site of the city which perpetuates his name. The day of batteaux and portages passed away, and the demands of the modern instrumentalities of commerce were asserted by the commencement by the State of Michigan in 1852 of the first lock at the Sault. This lock had two chambers, each 70 feet wide, 350 feet long between the gates, and it passed vessels of a maximum draught of 11 feet 6 inches. This structure was opened for business in 1855. The first year's tonnage through the lock was 100,000 tons. In 1880 it was 1,700,000 tons. This freight was chiefly the iron ore of the Lake Superior mines, which were even then supplying one-third of the ore for the total pig-iron production of the United States.

As early as 1865 the necessity for a new lock of greatly increased capacity became manifest from the yearly rate of increase of the tonnage. This lock was accordingly constructed by the United States, and was opened for navigation September 1, 1881.

It is 515 feet long, 80 feet wide, with 17 feet of water over the miter sill. While it was under construction extensive improvements were made in the canal above the lock and in the river below, by which the depth of 16 feet of navigable water was obtained. This great work of engineering has served most admirably its purposes. The increased depth of water made it possible to increase the carrying capacity of vessels designed for the Lake Superior trade. This augmentation began immediately, and has continued to the present time. The average registered capacity of these vessels was 761 tons in 1885. In 1889 it had risen to 965 tons, an increase of 204 tons in five years.

But it was perceived as early as 1881 that the yearly tonnage would soon exceed the capacity of the lock, and accordingly Congress by resolution, adopted December 29, 1881, requested from the War Department information "as to what additional works were necessary on the St. Mary's River, and at St. Mary's Falls, to complete the improvements thereof in a manner to serve the interests of the commerce of the northern lakes." In response to this resolution General Weitzel, then the engineer in charge, recommended the immediate construction of another lock and the improvement of the Hay Lake Channel, and enforced that recommendation by most convincing arguments.

The river and harbor act of August 5, 1886, having provided for beginning the work of enlarging the canal, appropriated \$250,000 "for continuing the improvement by a new lock and approaches." In consequence of the passage of this act, the War Department approved a general project for the work of enlargement, based upon the attainment of 20 feet in depth of navigable water. This included the construction of a new lock (upon the site of the original lock of 1855) 800 feet long

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

too long. The great man to whose genius this country owes the deepening of the outlet of the Mississippi River was first thwarted and then delayed year after year, while commerce stood at anchor waiting for the parsimonious wastefulness of stingy legislation. The work once done, a new era of prosperity began in the South. New Orleans regained her former commercial greatness. A railroad from the Pacific ran its cars alongside the ocean vessels. And then everybody deplored the fact that the work had not been done years before, as it easily might have been; for these years meant so many years of the arrested development of great States, of extortionate railroad rates, of low prices, and the slow settlement of vast and fertile regions between the Mississippi River and the Pacific Ocean. Surely the same considerations are presented in the situation under consideration, but with the added force of a greater tonnage, and therefore of a more imperative necessity in that respect.

Another comparison will show most impressively the relative importance of the commerce of Lake Superior, which wholly depends upon the present lock, and which may be utterly prostrated, to the incalculable damage of great interests and communities by accident to the structure. The total registered tonnage entered and cleared in all the ports of the United States from and to foreign countries in 1888 was 31,062,007 tons. In the same year the registered tonnage through this lock was (estimated) 6,200,000 tons, being about 20 per cent. of the amount of the tonnage entered and cleared in that year from all the ports of the United States in its foreign commerce. Of this, 11,250,813 tons entered and cleared at the port of New York—less than one-half more than the tonnage through this lock during the same year. The merchandise that passed through the lock in 1888 was of greater value than that of either total exports or imports during that year at any port of the United States excepting New York City.

So far as American ship-building is concerned, that of the Great Lakes was nearly equal in 1888 to that of the entire seaboard, and surpasses it in average tonnage of vessels. In that year 708 vessels were built on our entire seaboard, measuring 105,125 tons, while on the Great Lakes 242 vessels were built, measuring 101,103 tons. The average tonnage of these vessels as to the great lakes was 455 tons, while the average as to all vessels built on the sea-board was only 143 tons.

The number of vessels engaged in the commerce of the Great Lakes is stated to be 2,499. They represent an investment of nearly \$50,000,000. None of these that draw over 16½ feet can engage to their full capacity in the enormous traffic of Lake Superior. Were this a matter of corporate enterprise and investment, such as a railroad needing a new bridge at such a point, the work would have been done long since by private means.

Consider the commerce of a single city during the year 1889—the city of Duluth. The shipments of iron ore from that point were 826,814 tons, as against 504,110 tons in 1888, an increase of 320,000 tons in one year. The shipments in 1884, when export from the Minnesota iron mines began, were only 62,122 tons. This ore is of the finest quality. It is produced from the Iron Range of Minnesota. These mines are inexhaustible. Six years ago that region was utterly uninhabited. It is now the seat of great mining operations, which are rapidly increasing. It is traversed by railroads, and cities have sprung up in the wilderness.

The wheat received and shipped from that port in 1880 was 3,021,837 bushels. There were received 17,310,605 bushels in 1889. The shipments of flour in 1883 were 891,800 barrels; in 1889 they were 2,020,953 barrels. Nearly all of this is the product of the greatest flouring mills in the world, those of Minneapolis, whose output has in six days been 187,050 barrels, an average of 31,175 barrels each day. The elevator capacity is 19,500,000 bushels.

In 1883 the coal receipts at Duluth were 420,000 tons, as against 1,045,000 tons in 1889. The arrivals and clearances of vessels at this port in 1889 were 2,554 vessels, of registered tonnage 2,475,195, as against 1,808 vessels in 1883, of registered tonnage 1,372,233 tons. In this period the average registered capacity of the vessels increased from 761 tons to 965 tons. In the four years ending with 1889 that increase was 204 tons.

The length of dock line is 16.27 miles; the length of dock face is 115.30 miles.

The following railways and railway systems connect directly with these docks:

	Miles.
St. Paul and Duluth.....	252
Northern Pacific and branches	2,850
Chicago, St. Paul, Minneapolis and Omaha, and connecting branches	7,067
St. Paul, Minneapolis and Manitoba.....	3,160
Duluth and Iron Range.....	117
Duluth, South Shore and Atlantic.....	529
Wisconsin Central.....	775
Milwaukee, Lake Shore and Western.....	605
Duluth and Winnipeg.....	70
Duluth, Red Wing and Southern	25
Total	16,455

This is but the statement of the commerce of a single city. That of Superior, Ashland, Houghton, Marquette, Ontonagon, and other ports, in which is comprised the enormous output of the iron and copper mines of Wisconsin and Michigan, goes to make up the vast aggregate expressed by the statistics of the operations of the canal and lock.

There can be no doubt that a case of urgency is presented by the present situation. As early as 1881, immediately after the completion of the present lock, General Weitzel clearly foresaw the necessity which has now become immediate, and he then urged the commencement of the improvements now under construction. Opposition, discussion, and delay were interposed, and the work was not begun until 1886. Five years have passed, and it is yet in its preliminary stages. The lock now in use was built in the usual leisurely way, and ten years were consumed in completing it.

General Poe, who succeeded General Weitzel, most forcibly stated in his annual report, dated July 21, 1885, the necessity of the situation as it appeared then. He said:

Scarcely had vessels drawing more than 12 feet begun to use the channel before a demand sprung up for a still greater depth. The commerce using it also increased enormously, until it is now evident that at an early day additional lockage facilities must be supplied to the canal which forms part of the route.

Only 11 per cent. of the freight passing the canal during the season of 1884 was carried in vessels the draught of which would permit the use of the old locks.

The amount of freight passing the canal has increased from 1,567,741 tons during the season of 1881 to 2,874,557 tons in 1884, or in the three years an increase of 1,306,816 tons, or 83 per cent. in the amount of freight actually passing the canal in one season.

Should this rate of increase continue, the present lockage system will be insufficient to pass the commerce long before it can be, in the usual course of appropriations for river and harbor improvements, enlarged to meet the greater demands upon it.

For the fifteen years preceding 1884 the annual increase in the registered tonnage using the canal was comparatively uniform, and averaged about 107,313 tons.

In 1884, however, the increase was 955,578 tons. This increase was alone equal to the entire commerce through the canal from 1855 to 1860, the first five years the canal was in operation, and is well calculated to startle all who feel any interest in the route by lake between our great Northwest and the seaboard.

It urges in the strongest way that the work of preparing to take care of a commerce greater than the present canal and lockage system could accommodate shall be entered upon without delay.

The estimated capacity of the present lock is ninety-six vessels in twenty-four hours. In 1887 eighty-four vessels were passed in one day in June, and in commenting upon this and other facts little less impressive, General Poe remarked:

But now we are face to face with the fact that during the month of June, 1887, alone, the commerce through the canal amounted to 50 per cent. more than for a whole year as it existed at the time the enlargement was projected, and that it is increasing right along at such a rate as to exceed the wildest predictions of ten years ago.

And so it has increased. It rose from 8,530 vessels in 1887 to 9,579 vessels in 1889; from 5,494,649 freight tons in 1887 to 7,516,022 freight tons in 1889. The increase has been at the rate of a little over 1,000,000 tons per annum since 1885, and that it will hereafter continue to increase at a rate even greater no one can doubt who will give any consideration to the facts. The iron and coal and wheat freights alone will within the next two years exceed the capacity of the present lock. Production of all these is increasing with unexampled rapidity. These are the products which inevitably seek the nearest navigable water. The demand for them has no limit. The necessity for low freights by a water route and as a competitive regulator of railroad freights, and for speedy and uninterrupted transit, touches nearly the farmers of the Northwest, the producers of coal and manufactured iron in the East, and the consumers everywhere of the food products of the West.

The engineer in charge has made a careful estimate of the average cost per mile per ton of freight carried through the St. Mary's Falls Canal during the season of 1888. It is as follows:

At pages 132 *et seq.*, annual report of the Chief of Engineers, 1888, is printed a report upon this interesting subject for the year 1887. Following the same plan, the data have been obtained for similar statistics for the year 1888. The work has, as before, been done during the otherwise idle months of winter by and under the direction of Mr. Andrew Jackson, clerk of the canal, aided by Assistant Superintendents Charles A. McCarthy and Reuben Smith and Office Watchman A. N. Phillips.

The tables from which the deductions were made comprise 669 pages of foot-caps, and indicate the thoroughness with which the work was done. They consist of two parts, the first determining the total number of ton miles and the average distance the freight was transported; the second determining the cost of transportation per ton per mile.

The total number of ton miles traversed by vessels passing through the canal during the calendar year 1888 was 5,173,132,972, and the total number of freight tons (of 2,000 pounds) transported during the same time by all passing craft, registered and unregistered, was 6,411,423. Dividing the former by the latter it is found that the average distance such freight as passed through the canal was carried by water was 806.9 miles, as against 811.4 during the year 1887. This decrease of 4.5 miles in the average distance freight was transported is accounted for by the falling off in wheat traffic, which is a long-distance freight, the greater portion of it being carried from Duluth to Buffalo, and the increase in the iron-ore traffic, which is usually a considerably shorter distance freight, the greater amount of it being transported from Marquette to Ohio ports.

This second part of the inquiry yielded results much more complete and satisfactory than for 1887. A circular letter was addressed to the principal owners and shippers on the lakes, and from the replies received a table was compiled showing the different freight rates obtained for all the commodities classified in our commercial statistics; that is to say, for coal, flour, grain, manufactured iron, pig-iron, salt, copper, iron ore, lumber, silver ore, building stone, and unclassified freight. From a study of these replies, made separately and independently by Assistant Engineer (General Superintendent) E. S. Wheeler and Messrs. Jackson and Phillips, an average rate (including terminal charges where there were any) was deduced by each for each commodity. The results varied but slightly, and after a further discussion a mean value was adopted from these results. As before, unclassified freight is the most uncertain, owing to the vast number and range of articles included in this item, but as its percentage of quantity is so small in comparison with the classified freights, it has little influence on the general results.

After adopting the average rate the quantity of each commodity was multiplied by its freight rate, and the sum of these products is the total sum paid for freight. The following table embodies these results:

Item.	Quantity.	Average freight charge per unit.	Amount.
Coal..... tons...	2,105,041	\$0.70	\$1,473,528.70
Flour..... barrels...	2,190,725	.17½	383,376.87
Wheat..... bushels...	18,596,351	.03½	650,872.20
Corn..... do.....	1,626,008	.04½	70,462.05
Oats..... do.....	396,249	.05	19,812.00
Iron, manufactured..... tons...	48,859	1.80	87,946.20
Salt..... barrels...	210,433	.16	33,669.28
Copper..... tons...	28,960	2.35	68,055.00
Iron ore..... do.....	2,570,517	1.28	3,290,261.76
Iron, pig..... do.....	14,844	1.30	19,297.20
Lumber..... M feet.....	240,372	2.80	673,041.60
Silver ore..... tons...	3,385	1.90	6,431.50
Building stone..... do.....	23,541	2.05	68,759.05
Unclassified freight..... do.....	345,854	3.00	1,037,562.00
Total			7,883,077.40

The total cost, as shown, is \$7,883,077.40 as against \$10,075,153.13 in 1887. Dividing the total amount of freight charges by the total number of mile-tons gives 1½ mills as the cost per ton per mile. For 1887 the cost of a mill in 1888. This can only be explained by cheaper freight rates, (due to a greater proportion of carrying capacity in comparison with the demand therefor; to an increase in the size of the vessels, with a corresponding reduction in the cost of carrying per ton, and possibly to some extent to competition on the part of the railways.

In 1887 the rate charged for transporting merchandise from Buffalo to Duluth averaged 30 per cent. more than from Buffalo to Chicago, the distances being substantially equal. The larger the vessel the less the freight charge is a general rule. But the largest vessels now upon the lakes can not engage in the Lake Superior trade. Their draught is too great to pass the lock when loaded to their full capacity. Yet the increasing demand for tonnage upon the Great Lakes has given an extraordinary impulse to the building of iron and wooden ships. In 1887 there were under construction in the ship-yards of the lakes sixteen steamers, to cost \$200,000 each, and nineteen steamers to cost \$135,000 each, representing an investment in one year of \$5,675,000, more than enough to finish the lock and improve the Hay Lake Channel. The average carrying capacity of this new tonnage is 2,100 tons. The new lock and improved channel will give increased capacity for the Lake

Superior trade by 4 feet of water additional, an increase of 33½ per cent.

This great water way is in a most inadequate state of development. Its limit of utilization has been practically reached, and that limit will be surpassed long before the most strenuous labor, backed by a full appropriation, can complete the works now under construction. Yet, even in its present condition it carries more freight than any other artificial water way on the planet—more than the Erie Canal; more, daily, than the Suez Canal.

In 1888, 4,952,948 tons of freight were transported over the Erie Canal. During the same year the actual freight tonnage through the Sault Canal was 6,411,423 tons.

The Suez Canal cost nearly one hundred millions of dollars. It is the highway of all nations. It revolutionized all of the processes of intercourse between the East and the West. Its political, military, and commercial influence is of more importance than all the wars that have ever been fought for the possession of the East—that highest prize of commerce. Yet its average daily tonnage for the year 1888 was less than that of the Sault Ste. Marie Canal. That average for the Suez Canal was 18,194 tons daily, while the daily average of the Sault Ste. Marie Canal during the two hundred and twelve days in which it was open was 30,242 tons, and the value of the products for that year thus transported was \$82,156,019.

The number of vessels that traversed the Suez Canal in 1888 was 3,440. In the same year 7,803 vessels passed through the Sault Ste. Marie Canal, and this number increased in 1889 to 9,579 vessels.

The discovery or the construction of new maritime routes has often changed the orbits of commerce, has exalted or depressed nations, and has crushed trading and carrying monopolies.

The discovery of the way to Asia by the Cape of Good Hope destroyed the overland trade with the East, annihilated the commercial and political ascendancy of Venice, introduced the products of Europe into regions so remote that they were known only by the fables of travelers, and imposed upon India the dominion of a European power.

The immediate effect of the first operations of the Erie Canal was to expand the settled area of the United States over a region larger than the original thirteen States of the Union.

The construction of the Suez Canal effected another revolution. Commerce abandoned the passage by the Cape of Good Hope. It assured the perpetuation in India of the imperial system of England. It enforced the threat of Disraeli that he would marshal the Sepoy on the fields of European war. It subdued the eastern coast of Africa so that Stanley on arriving at Zanzibar stood within the outworks of civilization.

The genius of De Lesseps was thwarted by the obstacles that nature reared against it upon the Isthmus of Panama, but the loss of hundreds of millions of treasure, of the subsidy of all France, in that stupendous failure, taught every one by the magnitude of the catastrophe the supreme importance of the conception.

At this moment American genius and enterprise are at work upon a more feasible undertaking, and the completion within a few years of the Nicaragua Canal will work a greater change in maritime routes, and create more commerce than has ever been accomplished by any similar work of man.

Navigable streams are so vital to nations that they often produce civilization. They always make it possible and always infinitely extend it. The oldest civilization of the world was "the gift of the Nile." The new civilization of Africa will be the gift of the Congo. So vital are the great streams felt to be by human instinct that the decisive battles for empire are almost invariably fought in their valleys. Man, as a fighting animal, instinctively attacks and defends them. They are the strategic lines of war and peace. The forces of the Union were the Armies of the Potomac, of the James, of the Tennessee, of the Cumberland, of the Ohio. No substitute for the water ways has ever been able to annul their political and commercial importance. The railways have not done it. The Mississippi River is paralleled by them from St. Paul to the Gulf of Mexico. The steam-boat has, it is true, largely become a thing of the past, and yet the fact that there is the river and there is the steam-boat is a check upon extortionate railway rates that no effort of consolidation or other contrivance has ever been able to control. And when the commercial relations of the Northwest with the States of the Lower Mississippi and of the Gulf become those of a more frequent and direct interchange of productions, as they surely will, the Mississippi and the Missouri Rivers, which run through zones of different productions, will resume all of their former importance. The present tendency of commerce is, however, East and West, and that commerce on one of its most important lines is dependent upon a single canal and lock of insufficient capacity, and subject to all the hazards of accident which would by one mischance totally suspend that commerce for an indefinite time.

The general benefit of this work can not be questioned. Its especial and immediate importance to the country west and southwest from Lake Superior is such as to entitle the demands of that region for its speedy construction to the most liberal consideration. The overland commerce of the United States moves from tide water to tide water over several parallel systems. The most southerly is the Southern Pacific, which terminates at New Orleans. This route can be shortened to 1,200 miles from the Bay of San Diego by improving the harbor of Galveston. North of this system the great midland railways cross the continent, traversing a much longer distance, but with the advantage of the business of many great and populous States by which they are sustained. North of these is the Northern Pacific system, running through a tributary country as yet only partially developed, but of infinite capacity of production. Between this line and the international boundary the St. Paul, Minneapolis and Manitoba Railroad is under construction to the Pacific. It is already in operation beyond Helena, Mont. These two northern lines connect with lake navigation at the great harbor which forms the western end of Lake Superior. Converging lines from other regions from the South, Southwest, and Northwest also end at this port, in obedience to the law that the primary products of the soil and the mine seek the shortest transit and will leave the railroad at the nearest point where ships can take them up.

What is this region which within a few years has been developed into great political communities, and has become a new agency in our national prosperity? It includes the States of Minnesota, North Dakota, South Dakota, Montana, and Washington, containing 448,133 square miles of territory and 3,000,000 of inhabitants. It is rich in grain, herds, forests, and minerals. Its fields are not one-tenth occu-

ped. Its mines are as yet only in the preliminary stage of productiveness. The instrumentalities of our present civilization are such that, whereas States formerly grew, they now become such by an almost instantaneous process, as time is measured in the life of nations. Under such processes these States have appeared. They have the right to their natural advantages, and among them all not one is greater than the right to use to its fullest extent this great northern water way to the ocean which Providence in preparing this region for man and his institutions extended nearly half way across the continent.

But these states are not alone concerned. The most vital interests of Michigan and Wisconsin are involved. Omaha is nearer to Duluth than it is to Chicago, and the State of Nebraska is deeply interested in the enjoyment of these natural advantages. The same is true of Wyoming. By present lines of communication San Francisco is 100 miles nearer to Duluth than it is to Chicago. The construction of a railroad from Ogden through Wyoming into South Dakota, there to connect with constructed railways that have their terminals at the Bay of Superior, will shorten this distance to navigable water nearly three hundred miles, and create a traffic competition to the Atlantic seaboard which under the present railroad arrangements can not exist. Railway construction now in progress will shorten the distance between Duluth and Puget Sound to 1,800 miles, thus bringing that great haven within that distance of the navigable waters that flow into the Atlantic Ocean. This will place the city of New York within 10,500 miles of Canton. By the Suez Canal it is now distant 20,500 miles and by the Cape of Good Hope 22,500 miles, while London by the Suez route is 18,000 miles from Canton.

Were positions changed so that England in her determined attempt to engross the commerce of the world, stood in the place of the United States with such an element of power and commerce as this, not a dollar would be spared, not a subsidy would be wanting, not an hour would be wasted in developing it to its fullest capacity. This lock would have been built long ago. This channel would have been deepened. The Canadian canals would have been enlarged, and ocean vessels would now be plying between Liverpool and the head of Lake Superior.

The advantages to be considered as accruing to us do not come entirely from the resources of our own territory. Another railway stretches from ocean to ocean across the Dominion of Canada. It was built by lavish subsidies, and it is sustained by a most liberal policy. When we consider the geographical situation, the population and resources of Canada, that railway deserves to be considered as one of the most intrepid and beneficent works of that character ever constructed. It traverses a region west of Winnipeg of great productiveness, but it can not always hold the monopoly of the colonial traffic. Lines of railway are now under construction from Duluth into its territory and far to the north beyond it. The Northern Pacific and other railroads are also sending out their laterals into the north, beyond our own dominions. All these have terminals on the Bay of Superior, and the traffic of all these is in various degrees dependent upon the outlet through the St. Mary's River.

The Northwestern States, and particularly the States that have recently been admitted into the Union, are entitled to most generous consideration. Their people created those commonwealths with little aid. They fought Indian wars. They endured privations that were

almost unbearable, and they overcame every obstacle of climate and distance. They are in the Union, undowered as yet by any such appropriations as have improved the navigable waters of the older States. They are new and great elements of national power. When they became States "the wide arch of the ranged empire" was completed from sea to sea. They surely ask but little in requesting that this great work, upon which so many of their most important interests depend, be speedily constructed.

They are entitled to all their natural facilities, both of water and of land transportation. These advantages should be improved and not neglected, much less thwarted.

The enterprise and capital of the Northwest have built a railroad through Minnesota, Wisconsin, and Michigan that connects at the St. Mary's River with the Canadian system of railways, and thus completes another line of transcontinental railway, partly through the Dominion of Canada and partly through the United States. This system is in the chain of connection with the railroads of New England, and gives to New England and to the West a shorter route than that by the central lines. It has been proposed to legislate and to proceed by executive action against this advantage which our people have thus secured to themselves by their own unaided energy, utilizing the natural advantages which Providence has conferred upon them—advantages so great that long before their improvement was practicable they were inducements that populated the Northwest.

It may as well be understood that the people of the new Northwest will insist upon their geographical advantages. No good can come of any attempt to neutralize them. If the farmer, the miller, the miner, the grazier of this region can get a shorter haul and a lower freight by sending their products along the shorter line of a northern latitude, it is as much their right to do it as it is to profit by the productions of their soil. If the consumer, the manufacturer, the merchant of any Eastern State can thus receive these products and pay for them by sending their commodities for a lower freight along the shorter line of a northern latitude, it is as much their right to do it as it is to consume, to manufacture, or to sell. As well in reason legislate against the Southern Pacific Railroad because it reaches tide-water by a route 800 miles shorter than the railroads immediately to the north of it.

But considerations other than those of merely local advantage enter into this question. Our commercial and political relations with Canada ought to be most intimate and friendly. Here are two nations, self-governing, whose people are of the same stock, who speak the same language, who are on the path of the same destiny, and who are divided by no natural barriers. Nothing is more certain than that these nations will in time coalesce politically. This union, if it is to be effected by peaceful means, must be preceded by a fraternal feeling, caused by just and fair dealing by the strong republic with its weaker yet energetic and high-spirited neighbor. The boundary line between them should be a mere mark on the map, subject to obliteration, and not a garrisoned rampart with soldiers on either side. There should be reciprocal freedom of traffic, transportation, and intercourse. These nations have within the last thirty years grown apace with each other.

Minnesota became a prosperous commonwealth, and at once a neighbor state, the province of Manitoba, appeared equipped with all the forces of civilization. The settlement and political organization of Dakota,

Montana, and Washington were matched by the contemporaneous political development of the provinces of Assiniboia, Saskatchewan, Alberta, and British Columbia. The Northern Pacific Railroad demonstrated the productiveness of that northern region. It reached the waters of Puget Sound. Great cities arose upon those shores. Following close upon this, and with the relation of effect to cause, the Canadian Government caused to be constructed another railway across the continent, terminating upon the same waters, and cities likewise arose there. We are constructing a new lock at the falls of the St. Mary's River, and in 1887 the sum of \$1,000,000 was voted by the Canadian Parliament for the construction of a canal and lock along the eastern shore of the same river.

The Eastern States have been benefited incalculably by the Western development of political institutions, civilization, and wealth. It has created an internal commerce greater far than all our foreign trade. A similar development is in progress in the territory north of our own. That along the 3,000 miles of boundary which distinguishes but can not separate these homogenous peoples forts should confront forts; that armies, great or small, should occupy the strategic points of either country; that armored ships should lie in wait, as they now do, for reprisals and war; that hostile commercial legislation or hostile executive action should be the policy of either country; that either Government should waste thousands of dollars for every dollar of petty and transient advantage gained; that either state should hope to gain or think that it can gain by injuring the other; that either state should seek to interfere in the affairs of the other, as in time each state surely will under a policy hostile to free intercourse, is a condition of affairs purely barbaric. These our neighbors have, with Roman energy, achieved stupendous results in creating their northern empire. Let us take care that we do not inspire them towards us with an implacable Carthaginian hatred.

It greatly concerns our own interest in another respect that we promptly second the endeavors of personal and corporate enterprise that I have mentioned by at once increasing the capacity of the improvements of the St. Mary's River, so that it will not be for the interest of the people of Canada to develop or for the interest of our own Northwestern States to encourage the opening of a new outlet to the markets of the world, an outlet wholly outside our own boundaries, and which, while it will benefit greatly a large portion of our own country, we can not in the least degree control. I refer to the outlet to tide-water on the western coast of Hudson's Bay. This is no mere theory; it has been a demonstrated fact for more than two hundred years.

The country north of the international boundary up to the fifty-sixth parallel of north latitude and east of the Rocky Mountains, to and including the province of Manitoba, contains about 100,000,000 of acres, a large portion of which is well suited to the production of cereals. The northern portion, known as the Peace River district, owing to the depression of the Rocky Mountains, has quite the same climate as the southern part and is equally fertile. Immigration is invading this immense region, and the time is not far distant when it will be enormously productive.

From the Minnesota line to Churchill, on the western shore of Hudson's Bay, the distance is less than 800 miles. Of this distance more

than one-third is occupied by Lake Winnipeg, having a navigable area nearly equal to that of Lake Erie. It drains with its tributaries a basin of about 400,000 square miles. Churchill has an excellent harbor. It is as near to Liverpool by the way of a ship as is New York City. It is nearer to Liverpool by 64 miles than is Montreal. As to the distance from the city of Winnipeg to Liverpool the saving is therefore substantially the whole distance from Montreal to Winnipeg. It is equal to 1,291 miles by way of Lake Superior, or 1,698 miles by way of Chicago. From Winnipeg south to the international boundary line at Gretna is 69 miles. This is the shortest possible route to tide-water for the great wheat-growing regions of the Northwest, both in the United States and Canada.

It has been estimated that the saving in the transportation of wheat by this route would be such as to add a profit of \$3 on every acre of wheat produced in North Dakota and Northwestern Minnesota.

The Canadian Government has not been insensible to these facts. It has adopted measures looking to the construction of a railroad to Churchill. In 1878 it sent out one of its vessels, the Neptune, from Halifax, with a corps of most competent observers, to ascertain the navigability of Churchill and other harbors on the bay through the straits of Hudson. It was found that ice forms in the harbor of Churchill on an average about the middle of November and breaks up about the middle of June, thus giving one hundred and fifty days of navigation in each year for large ocean steamers. The canal at the St. Mary's River for the five years ending with the year 1888 has been open for an average of about two hundred and twenty days in each year.

It is stated in a paper read before the Royal Geographical Society by Commodore Markham that the temperature of the water in Hudson's Bay is 14° higher than that in Lake Superior. The bay has been navigated for two hundred and seventy years. The Hudson's Bay Company was incorporated in 1670, and from the time it commenced its operations in this portion of North America until about the year 1864 it sent out its men and supplies and took out its furs by ships into Hudson's Bay. Moose Factory, on the extreme southern shore, was visited annually by a ship from the year 1735, with the exception of the year 1779. This commerce was carried on by means of sailing vessels, without the aid of adequate charts, or of any light-houses or artificial harbor facilities. Specially constructed steam-ships of great power and strength and of large tonnage could easily move each season the grain, cattle, and mineral products of the new Northwest, with adequate return freights to supply the wants of its people.

I submit these considerations because they are cogent reasons why we should act upon the pending subject with promptness and liberality. The tendency of transportation is at present over the east and west route by way of the Great Lakes and the Canadian and American canals. It ought to be generously and speedily encouraged. It draws these great commonwealths closer to each other along their entire length. The opening of another route whose tendency will be repulsive to political and commercial intimacy will be the certain result of provocative or retaliatory treatment by us of this great subject of our relations with Canada.

The engineer in charge remarks in his report for the year ending June 30, 1889:

The excavation for the lock-pit once made the work should be carried forward without interruption and as fast as possible. Any other course would be un-

wise, and in case the coffer-dam should fail might prove disastrous. The larger the appropriation the more work can be put under contract and the more rapidly it can be pushed forward.

The urgency for the appropriation is that the capacity of the lock now in use will be reached and passed long before the new structure can be completed even under the most favorable circumstances. Any accident to the existing structure may prevent its use for an indefinite time and entail most serious consequences to the great commercial transactions that are dependent upon this single channel of communication.

Mr. President, I move the concurrence of the bill and accompanying papers to the Committee on Commerce.

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