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FORTY-SIXTH LEGISLATURE.

HOUSE.

No. 22.

STATE OF MAINE.

EXECUTIVE DEPARTMENT, Augusta, January 22, 1867.

To the Senate and House of Representatives :

I have the honor to transmit for your consideration a letter from His Excellency the Governor of Wisconsin, with accompanying documents, referring to the proposed improvements in the navigation of the Fox and Wisconsin rivers, with a view to facilitate the transportation of grain.

J. L. CHAMBERLAIN.

HOUSE-No. 22.

STATE OF WISCONSIN.

EXECUTIVE DEPARTMENT, } Madison, 17th December, 1866. }

To His Excellency the Governor of Maine:

GOVERNOR:—Believing the question referred to in the enclosed letter to be one of great importance, not only to the Northern, but also to the Eastern and Western States, all being alike greatly interested in cheaper freights on the produce of the Northwest, and believing that the nation at large will be benefited in a great degree by the establishment of one or more military highways by water from the Mississippi to the Great Lakes, I cheerfully comply with the request of those who are taking great individual interest in the undertaking referred to by Mr. Stevens, and forward the enclosed with the hope that it will receive at your hands such consideration as its importance demands.

Respectfully,

Your ob't serv't,

LUCIUS FAIRCHILD, Governor Wisc.

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FOX AND WISCONSIN RIVERS.

MADISON, Wis., December 1, 1866.

To his Excellency the Governor of Wisconsin:

SIR,—Having read a letter bearing date Nov. 22, 1866, addressed to you by Brevet Maj. Gen. J. H. Wilson, urging the opening of a water communication between Lake Michigan and the Mississippi, permit me, with the same purpose, to call your attention to the feasibility and economy of improving the Wisconsin River from the mouth to Portage City, from which place to Green Bay on Lake Michigan, a distance of over one hundred and fifty miles, there is now good water communication, permitting at low stages of water the passage of boats with a draft of from three to four feet. At certain stages of water, boats drawing even five and six feet of water have passed from Green Bay, not only to Portage, but down the Wisconsin to the Mississippi.

In low stages of water the Wisconsin cannot be navigated with facility on account of the shifting sand.

Will not the General Government undertake to make the Wisconsin River navigable, so as to permit the passage of boats drawing five feet of water from Prairie du Chien to Portage at all stages of water, and to that end should not Congress be memorialized by the legislatures of the North Western States, and by the legislatures of the Eastern or Manufacturing States, not so directly, but in no less degree interested ?

The side canals in New York were built at a cost of from twoto six millions each. They overcome by lockages from six hundred to eleven hundred feet each, having (at least three of them)from one hundred and nine to one hundred and twenty-four locks. In the case of all of them, or nearly all of them, the water on the summit level is obtained at great expense from artificial feeders or reservoirs. Streams, lakes and ponds have been dammed to make these reservoirs. Artificial feeders are made at great cost, and when made are often unreliable and insufficient

The Erie Canal overcomes a summit of six hundred and fiftyfour feet, with over seventy locks. On the western division the water is obtained from Lake Erie, but the summit level, for all

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practical purposes, is between Syracuse and Utica. That level is fed wholly from artificial reservoirs and at great cost. The Black River Canal was built mainly as a feeder for this level. Each year there is still difficulty in feeding this level, and various plans are proposed to increase the supply of water.

The Fox and Wisconsin Rivers Improvement overcomes only about one hundred and ninety feet, with about twenty-three locks, of which one is building and one or two low ones to be built. The Wisconsin River, having not less than ten times as much water as would be required for any one channel of commerce, is at the summit level. The Fox River runs within a mile and a half of the Wisconsin River, is connected by a canal, and is from two to eight feet lower. The fall of the Wisconsin from Portage City to Prairie du Chien is without rapids—about eleven inches to the mile—a fall of one hundred and thirty-one feet in one hundred and thirty-seven miles, (estimated.)

In order to improve the Wisconsin River, should it be necessary to build a canal the entire length of the river from Portage to Prairie du Chien, the canal could not cost as much as one of the side canals in New York. The basin of the river is wide, and there are no rock cuttings of any great extent, if any at all.

The sand from the river is the best of banking sand, only to be displaced by water washing over the top. Very few streams are to be crossed, &c. To build a canal might cost \$2,000,000, but could not cost \$5,000,000 by any extravagance. It is no doubt the opinion of Gen. Warren that a canal is not needed, that the sand in the river can be controlled by wing dams and other means, and consequently at small expense as compared with a canal.

The side canals in New York are outlets for *two counties*, or at best *four counties*. Two of them pay in themselves. All of them are paying investments if credited with the business they bring upon the Erie Canal. All the canals in New York have cost the State one hundred millions, and yet, even under State management and waste, have paid back already eighty-three millions.

The Fox and Wisconsin Rivers Improvement is the outlet for four States The business of the Northwest is greater than the railroads can manage, and greater than enough to fully occupy the "Improvement" if already perfected.

On the Erie Ganal the movement of freight is an average of one and one-fourth miles per hour, on the "Improvement" not less than five miles. On the Erie Ganal there is little or no back freight. On the "Improvement" the lumber trade will nearly or quite equal the movement of produce east.

The saving of freights on produce for one year will doubly pay the cost of the "Improvement." The average price per bushel of grain for shipping by rail from the Mississippi to Lake Michigan is, I am told, twenty-nine cents. With the Improvement, grain can be delivered on Lake Michigan at possibly eight to ten cents per bushel—say fourteen cents—thus saving fifteen cents. The exports of grain from Minnesota this year are, I am told, ten millions bushels, say fifteen from Iowa, fifteen from Wisconsin, and ten from Northern Illinois, and on the fifty millions, there could be saved, (at tifteen, cents per bushel,) seven and a half millions of dollars. It is to be hoped, that one third of this sum will complete the improvement of the Wisconsin.

Instead of fifty millions bushels, not less than one hundred mil-

If the General Government will make the Wisconsin River navigable for boats drawing four feet of water, the parties interested in the Fox River will. I have no doubt, make that river equally as good.

Four feet in these rivers, is for all purposes of tonnage, equal to from six to seven feet in the Erie Canal. The locks on Erie Canal are one hundred and ten feet by eighteen feet—hoats one hundred feet by sixteen feet—bottom of Canal narrow and boats sharp at bottom, so as to avoid friction. On the Improvement, the locks are one hundred and sixty feet by foriy frei—boats one hundred and fifty feet by thirty-eight feet, flat bottomed. The same tonnage will sink a boat on the Improvement only four inches, so that every four inches in depth gained on these rivers is equal to one foot in the Erie Canal.

My object in writing is not to state facts with perfect accuracy, but merely to approximate. If any suggestions here made, shall be of interest to you, I will endeavor to furnish you with proofs of such of the statements as you may deem important.

Very respectfully,

your obedient servant,

BREESE J. STEVENS.



STATE OF MAINE.

House of Representatives, January 22, 1867.

Read, and on motion of Mr. WOODMAN of Bucksport, laid on the table and ordered to be printed, with accompanying documents.

FRANKLIN M. DREW, Clerk.