20th Congress, 1st Session. [Doc. No. 41.] Ho. of Reps.

LETTER

FROM

HENRY M. SHREVE TO THE HON. C. A. WICKLIFFE,

UPON THE SUBJECT OF THE

Navigation of the Mississippi River.

DECEMBER 14, 1827.

Read, and referred to the Committee on Roads and Canals.

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TRINITY, (*Illinois,*) NOV. 21, 1827.

SIR: Feeling a deep interest in the improvement of the navigation of the Mississippi river, I hope you will pardon the liberty I take in addressing you on that subject; it being an improvement in which your constituents, with all the Western People, are deeply interested.

In consequence of the very unusual high stage of the water in this river, during the Summer and Fall of the present year, I have not been able to progress as fast with the work as I had contemplated; but, from the experiments made and the work done, I am thoroughly convinced that, if Congress will make the necessary appropriations of money to carry on the work, the object may be effected, and the navigation of this very important river rendered entirely free from the numerous and very destructive obstructions now in its bed.

My operations this year have been confined to the sand bars and island chutes, which are dry at a low stage of water, and to the snags that are situated on the points of the bars, and in the track of Steam Boats bound up the river, at a high stage of water, which is the case during the season of the year when a large proportion of the business of the country is done upon the river. I have removed from off the sand bars and island chutes all the obstructions to the navigation, consisting of snags, roots, wrecks of boats, &c. as far as the mouth of the river St. Francis, distant from the mouth of the Ohio river three hundred miles. The machine boats prepared for taking up the snags around the sand bars and points, did not commence operations until the 26th of last month, on account of the high stage of the water in the river. They have progressed as far as New Madrid, a distance of seventy-five miles from the mouth of the Ohio river. The whole of the work is now progressing at the rate of about six miles per day. However, as relates to the operations of the machine boats, I find them progressing much faster at present than when they first commenced working; it being entirely a new business. I have gained much by the little experience I have had in the work, which I have found to be extremely laborious and somewhat hazardous.

My reflections on the subject of the removal of the obstructions to the navigation of the river have been particularly directed to the best or most economical mode of executing the work. The result of these reflections I beg leave to communicate to you. I hope you will be enabled by the assistance of your Western friends to obtain a further appropriation, during the present session of Congress, for the completion of the work.

In the event of funds being appropriated for the further prosecution of the work, I would recommend the application of steam power for the removal of the obstructions from the bed of the Mississippi river.

From the experience I have had in navigating the river, and in observing the operation of my boat upon the snags when striking them in a variety of different positions, as well as from what I have acquired in the removal of the same the present season, I am induced to believe that a steam boat can be so constructed as to remove every description of obstructions from the bed of the river, at less than one half the expense that the object can be accomplished in any other possible manner; in fact I do believe that it will be found impossible to remove many of the most formidable snags and planters by any other means that can be applied. Such a steam boat, with all the necessary machinery, &c. will probably cost about twenty thousand dollars; the whole expense of working her, when engaged at the work, will be about two thousand dollars per month for hands, subsistence, fuel, &c. She would operate to advantage about eight months in the year. Not being confined to extreme low water, she can operate at any time when the snags, sawyers, &c. are to be seen, and would move up and down as the water falls, removing all those obstructions.

In some of my communications to Major General Macomb, I have mentioned the advantage of a steam boat, and have asked leave to submit a model of such boat to the Engineer Department, for their inspection, which I will cheerfully do, provided I am retained in my present situation, with an adequate salary, which I do not now receive; nor will I continue to perform the task unless my compensation be made an object, in some degree, to justify the sacrifice I must necessarily make to do justice to the duties of the appointment. The sufferings and privations attending a confinement on the Mississippi river, at that season of the year when the business must be attended to, needs no comment, as every gentleman from the South and West is well acquainted with the effect of the bilious fever, ague and fever, musquetoes, extreme heat, &c.

There is another subject relating to the improvement of the navigation of the Mississippi river, which I consider of the greatest importance to the complete success of the object, agreeably to the views of the Government, which is as follows:

By cutting down all the timber from off the banks of the river, at all places where they are liable to fall in, from three to four hundred feet from the margin of the river; in doing this, the first cause of the obstructions would be removed, and the banks of the river will be preserved; a circumstance evident from experiment; for example: wherever an improvement on the banks of the river has been made, by cutting away the timber, there is a projecting point of land, formed by the banks falling in, immediately above and below all such points of the cleared land on the river. This work can probably be accomplished for about two hundred dollars a mile. Gentlemen may ask how this is to be a benefit to the improvement of the navigation of the river. They may be answered, in several particulars: First, that, when the timber is thus cut down, the stumps will fall in with the banks, and disappear in the depth of the channel; the trunk or body of the tree will drift, and can never fix itself in the bed of the river, in a situation to become a

dangerous obstruction to the navigation; having no root to hold it in a perpendicular position. Another great danger attending the navigation of the Mississippi river will be effectually removed: those trees which are liable to fall upon every description of craft that approach the banks of the Mississippi river, being displaced. Many fatal accidents of this nature have happened within my knowledge, both by loss of property and human life. The value of the timber may be made an objection; but that being almost entirely cotton wood and sycamore, it cannot be a consideration either to individuals or to the Government.

I hope there will be some exertion made by the Members of Congress from the Western States to obtain an appropriation for the completion of this important object. To carry it on with success, I am of opinion that one hundred thousand dollars should be appropriated at the present session of Congress; provided the Government should think proper to adopt the plan of cutting the timber from off the banks. If that plan should not be adopted, fifty thousand dolllars would be sufficient for the operations next year, as there will remain about twenty thousand dollars in the Treasury, after this year's expenses are paid, of the appropriation made in 1824. To complete the whole work, from the mouth of the Missouri river to New Orleans, I am of the opinion will cost the Government about four hundred thousand dollars; which sum is but a trifle, when compared with other improvements now going on under the directions of the Government: for example, a second rate fortification costs upwards of four hundred thousand dollars. One hundred miles of the road now making from Wheeling to St. Louis, costs a like sum of $400,000. The Mississippi river, from the mouth of the Missouri river to New Orleans, is a distance of 1200 miles, on which there is carried at least 537,000 tons of produce annually, 280,000 tons of which is transported in about 7,000 flat bottomed boats, which descend the river from different points every year, carrying, on the average, forty tons of cargo each. The balance is carried in 134 steamboats, measuring in tonnage about 25,700 tons. Those steamboats, at a low average, carry ten full cargoes each, yearly; making the balance of tonnage above alluded to.

I have been trying, for some months past, to make as correct an estimate of property lost on the Mississippi river by the boats stove on snags, &c. for the last five years; but have not been able to accomplish that object to my satisfaction. However, as far as I have been able to get correct information, and from my personal knowledge, the following has been the result of my inquiries:

Since the beginning of the year 1822, the steamboats New Orleans, Tennessee, Alexandria, Mars, Newport, Kentucky, Cincinnati, Providence, Nashville, Thomas Jefferson, Gen. Robinson, Leopard, Eclipse, and America, have been entirely lost; (the America sunk but five days ago, by striking a snag one hundred and seventy miles below the mouth of the Ohio, with a cargo of two hundred tons of lead and furs on board; she was a first rate boat, built at Pittsburg, last year, and was owned at St. Louis.) Not to value

those boats at their original cost, but at what they were actually worth at the time they were lost, and a low estimate for their cargoes, (all except two being bound up) the loss sustained by their destruction amounts to $ 560,000. There have been ten steamboats stove, which have not been a total loss; the damage on their cargoes and repairs have been an average loss of about $ 7,500 each, ($ 75,000.) Another loss, by steamboats, from snags running through their guards, and injuring the upper works, cabins, &c. has cost, in repairs, at least $ 50,000; making the loss on steamboats, within five years last past, $ 685,000.

I have no means of coming at any certain estimate of the loss on flat boats within the period above mentioned, but, from calculation and recollection, I believe there has been at least thirty flat boats lost annually within the time; making, in all, 150 boats; averaging them at 40 tons each, gives 6,000 tons, worth, at least $ 60 a ton; making a loss on flat bottomed boats of $ 360,000: which, added to the loss on steamboats, is $1,045,000. The above estimate I believe to be as nearly correct as can be obtained, and, not by any means, above the actual losses sustained from the snags, sawyers, &c. in the Mississippi river within the last five years.

With sentiments of esteem,
I am, Sir, respectfully,
Your obedient servant,
HENRY M. SHREVE.

Hon. CHARLES A. WICKLIFFE,
Representative in Congress, Washington.