

L.A. GOSSIN'S

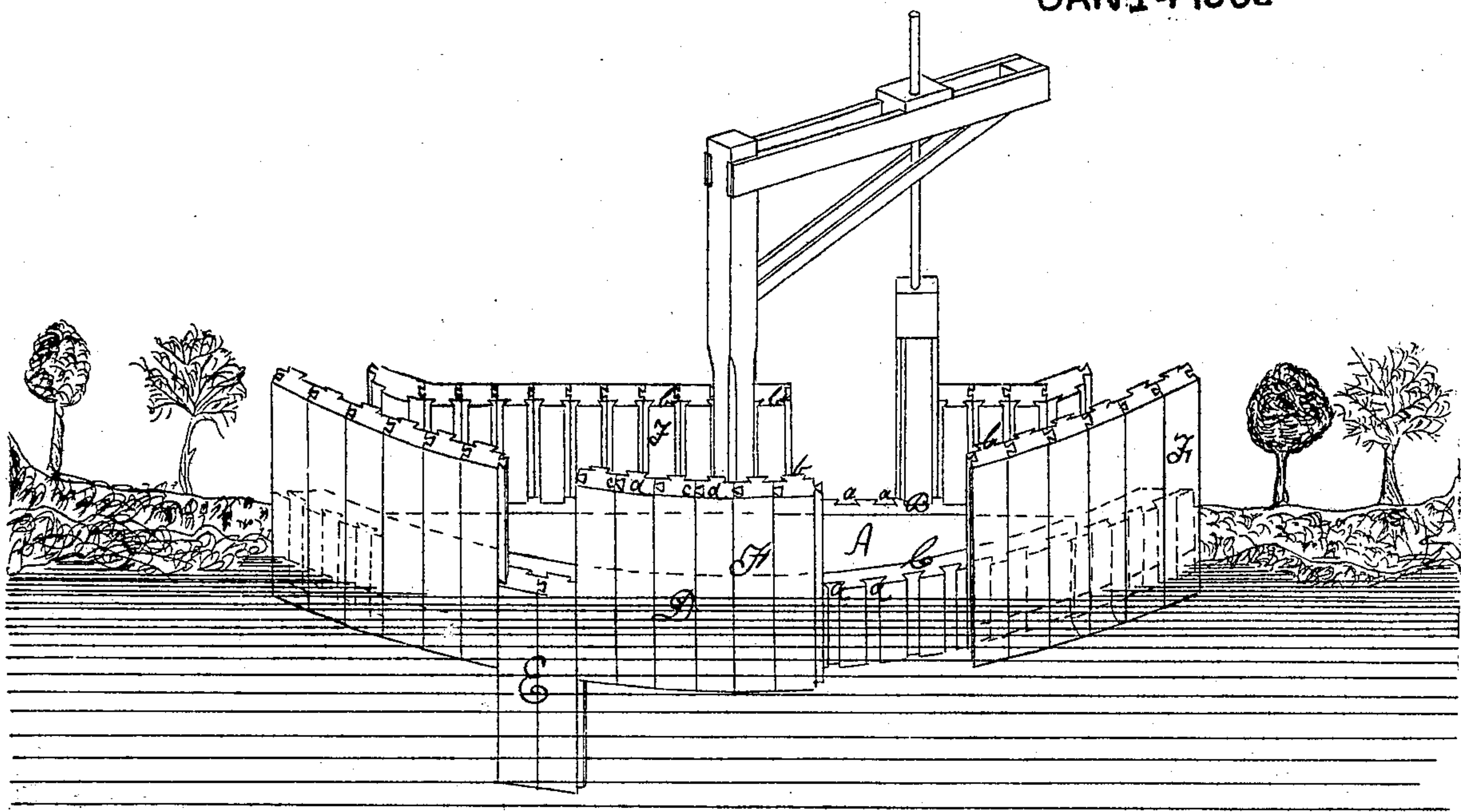
IMPROVED FLOATING DOCK

FOR STOPPING CREVASSES.

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PATENTED

JAN 14 1868



WITNESSES.

Rufus R. Rhodes  
Chas. Jenkins

INVENTOR.

L. A. Gossin



# United States Patent Office.

LOUIS A. GOSSIN, OF LAFOURCHE PARISH, LOUISIANA.

*Letters Patent No. 73,318, dated January 14, 1868.*

## IMPROVED METHOD OF STOPPING CREVASSES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, L. A. GOSSIN, of the parish of Lafourche, in the State of Louisiana, have invented a certain new, useful, and improved Boat or Floating Dock for Closing Crevasses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, and which is a perspective view of my dock as when covering a break in a levee, preliminary to the repairing or rebuilding of the same, a part of the piles, however, being removed on both sides of the boat, to show the peculiarities of its construction.

The dotted lines at the ends of the drawing exhibit the conformation of the interior structure, or boat proper, at the two ends thereof.

But before proceeding to describe my invention, or the mode of applying it to use, it is proper to advert to the fact that, owing to the want of sufficient elevation, both banks of the Mississippi river, excepting only at a very few points, are subject, whenever there is a freshet in the river, to inundation, and that, hence, earth embankments, called levees, have to be thrown up, in order that the rich alluvial lands that border upon the river may be secured to the uses of agriculture. When these embankments give way under the action of shifting currents, from the great pressure of the water, the imperfect construction of them, or any other cause, there is, of course, a general overflow of the lands proximate to and below the point that has yielded, and very great consequent loss inevitably follows, not alone to the individuals directly concerned, but to the country. Occasionally a crevasse, for that is the name technically given to a break in a levee, is stopped before the inundation assumes very extended or damaging proportions. But this is never the case unless the necessary material for closing it is close at hand and a great number of laborers can be immediately procured to apply that material. Heretofore no certain means of stopping crevasses have ever been devised, and hence my invention, in that it presents such a means, supplies a want that has been a most urgent and pressing one ever since the settlement of the southwestern portion of our country, but never more so than during the last three years, in consequence of the successive wide-spread and destructive overflows resulting from crevasses.

Having thus shown the importance of my invention, I proceed now to describe it by reference to the drawings.

A represents a flat-bottom boat or floating dock, which may be of any suitable length, say from two hundred to six hundred feet, and having one of its sides in a right line, or straight, whilst the other is curved, so as the better to resist the pressure of the current when the dock is blocking up a crevasse. The boat A is provided with water-valves, of sufficient capacity to secure a rapid depression or sinking, by the admission of water, to a point that will bring the bottom of the boat below the surface of the natural bank; and also with pumps, to discharge this water, after the break in the levee has closed, from the boat.

Perpendicularly on both sides of the boat, in the external surface of the hull, are formed the dove-tail grooves *a*, to receive corresponding projections *b*, on one of the sides, of heavy planks or piles F. Suitable dimensions for the piles F would be four inches thick, exclusive of the dove-tail tongue *b*, twelve inches wide, and from twenty-five to thirty feet long; and they are provided with dove-tail tongues and grooves *c d* on their edges. The location of the grooves *a* is calculated with reference to the width of the piles F; that is to say, they are cut at such intervals apart as will secure the close juxtaposition or contact of the said piles when the latter are in position around the boat. If the dimensions I have given for the piles F cannot be conveniently adopted, those dimensions may be diminished or expanded without changing the principles of my invention. The piles are to be shod at their lower ends with iron ferrules, with a sharp edge; and they may be banded at the top ends, to prevent their splitting under the blows of the pile-driver.

Cranes are placed in the boat A, in such positions as to enable a pile-driver, connected with each of them, to force down the piles, as is shown at E on the drawings, and afterwards, by means of proper pulleys or other mechanical appliance, to draw them out of the earth when the levee has been rebuilt.

Preparatory to the operation of stopping a crevasse, the piles F are all put into position, as shown at D; that is to say, they are so placed that their lower ends shall be in the same plane with the bottom of the boat A. This adjustment can be easily made by means of pins inserted into holes made at the proper point on the inside of the said piles F. I must not omit to state that, secured at each end of the boat, are strong iron rings



or cleats, for holding the boat in position, or for connecting two boats together in case the crevasse to be stopped is too wide to be covered by one.

In stopping a crevasse, the operation is as follows: After ascertaining the precise depth of the water in the break, or over the natural surface of the bank, the boat, completely surrounded by the exterior coating of piles F, is taken by a tow-boat just above the crevasse, the convex or curved side being next the shore, and the lower end is securely fastened by strong ropes or chains to the levee. The dock is then sunk or depressed, by the opening of the water-valves, and admitting water into the hull, until the bottom thereof is lower than the natural bank. The tow-boat is now disconnected from the machine, which, under the influence of the current, will be swung around until the unfastened end comes into contact with the levee below the crevasse, the straight side now being next the shore, as is clearly shown on the drawings. If the natural bank be straight and smooth, the flow of water will be stopped without further proceeding. But if the contrary obtain, and the bank be of irregular conformation, the pile-drivers are instantly put into operation to drive the piles into the earth, first, upon the straight side B of the boat, and if this do not stop the water, then upon the out or convex side of the boat. If all this be not sufficient, as a last resort, a tarpaulin must be lowered on the outside of the boat, in such manner as to cover the whole face of the piles, as well as a few feet of the bottom beyond the point at which the piles have entered it: and this will be found in every case absolutely effectual in stopping the water.

As soon as the flow of water has been stopped, the levee can be quickly re-established by throwing it up anew; and the cranes being put to work, and the piles drawn out of the earth, the dock may be at once taken to another crevasse, and so on, *ad infinitum*.

If the break in the levee should be too wide to be covered by a single boat, by securely fastening them together, two or more docks may be employed almost as effectively as one; but with a boat four or five hundred feet in length, ready for action, it would scarcely ever happen that one would not be sufficient. It requires many days, and sometimes many weeks, for a crevasse to attain a width of a hundred yards.

The crane and pile-driver shown on the drawing are only illustrative. In practice I should construct them differently. Neither constitutes any part of my invention, nor do such appliances as I may use for pulling up the piles after a crevasse has been closed, and on that account I have not deemed it necessary to show any such appliance on the drawing.

Having thus described my invention, and shown the manner in which it is used, what I claim, and desire to secure by Letters Patent, is—

The construction and arrangement of the boat A and piles F, in the manner and for the purpose substantially as herein set forth.

L. A. GOSSIN.

Witnesses:

RUFUS R. RHODES,

H. N. JENKINS.