# I. A. Winslow.

## Camel & Floating Dock.

No. 7,587. Patented Aug. 20, 185

Fig. 3.
Through. e.e.

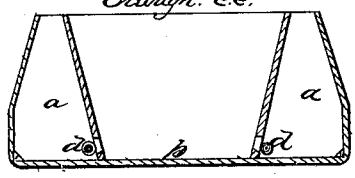



Fig. 2.

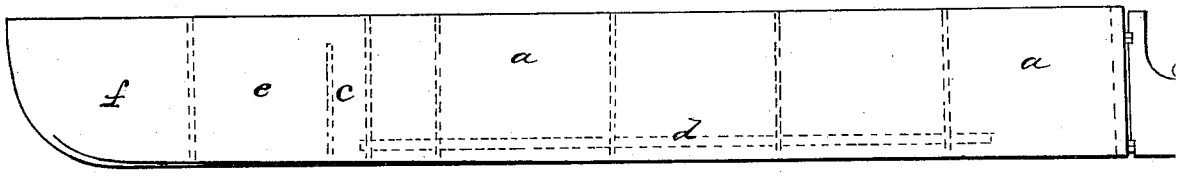
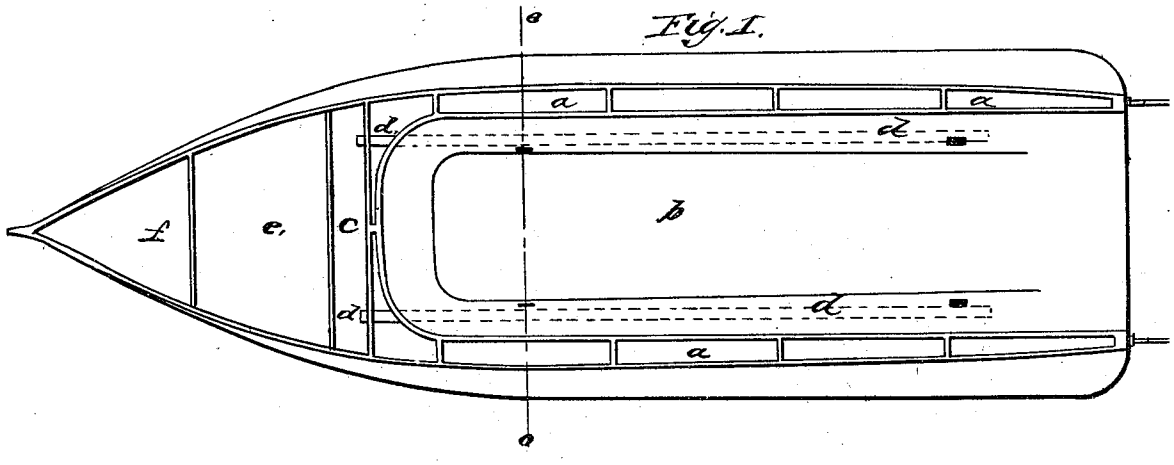



Fig. 1.



# UNITED STATES PATENT OFFICE.

I. A WINSLOW, OF ROXBURY, MASSACHUSETTS.

## METHOD OF CARRYING VESSELS OVER SHOALS.

Specification of Letters Patent No. 7,587, dated August 20, 1850.

*To all whom it may concern:*

Be it known that I, I. A. WINSLOW, of Roxbury, in the county of Norfolk and State of Massachusetts, have invented certain Improvements in the Mode of Transporting Vessels Across Shoals or Bars by Means of a Camel Steam-Tug, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, of which—

Figure 1 is a plan; Fig. 2, a side view, and Fig. 3, a section through the line (*o o*) of Fig. 1.

My invention consists in an improved method of transporting large vessels over bars or shoals, where the depth of water is too small to admit of their passing without lightening or otherwise decreasing the draft, by means of a steam camel tug, which enables the vessel to be taken over the bar partly sustained by her own buoyancy in the water, and only receiving so much assistance from the camel as is necessary to reduce the draft to the depth of water on the bar; at the same time having great facilities for getting the vessel in and out of the camel, and when in and in process of transportation protecting the vessel and apparatus from injury by heavy seas, and giving such speed that the vessel shall not be materially delayed by the operation. In the mode of transporting vessels over bars by camels, where the vessel is entirely enclosed and the water pumped out from the interior, the external sides are exposed to great strain by the pressure of water and waves without, and if any water is left within, it is liable to do great injury and perhaps swamp the camel by rushing from one end to the other on the slightest change of level; and the sides of such camel can have no permanent support or brace, throughout their length excepting at one end and the platform on which the ship rests. In camels consisting of side chambers having chains or suspension platforms between them and without bows, it is evident that they must greatly impede the speed; they are also liable to have seas rush between them and the vessel, separating them, and on their return producing collisions which are dangerous to the vessel besides causing great wear and tear on the sides and bottom, which renders their use very objectionable.

By using a camel tug in the form proposed by me these difficulties are obviated. In point of strength it is much superior, as the side walls are not required to be of the full length of the ship to be transported, and the bow being prolonged forward brings the transverse partition nearer amidships. For these reasons it is better adapted to resist the action of heavy seas as having a bow the waves are unable to enter forward, and the open end behind terminating near the broad parts of the vessel, they find but little room to enter aft.

In the drawings (*a a*) are the air compartments on each side of the platform (*b*) on which the ship rests. That portion which lies forward of the head division of the platform I propose to divide into three or more compartments by lateral divisions, the first of which (*c*) forms the well where the pumps are situated, and which connect by means of conduits (*d*) with the other compartments (*a*) for abstracting the water from them. Forward of this well there is an air chamber or compartment (*e*) which serves for the main hold of the camel, which is for the reception of the engines, boilers fuel &c. used in propelling and pumping out. Beyond this last mentioned compartment or hold, another (*f*) is formed in the extreme bow, into which water is admitted when sunk low enough for the admission of the vessel and a sufficient quantity is retained in it, above the level of the water without to balance and trim the vessel and camel together.

It will be seen that when a vessel is placed within the camel, and the water pumped out of the compartments, that she is partly sustained by her own buoyancy, the additional buoyancy required to enable her to pass the obstruction being supplied by the camel; and the after part of the vessel projecting beyond the end of the camel (a seventh of her length, more or less) the shape of the ship itself supplies what is deficient in the stern of the camel, which would otherwise impede the motion through the water.

Having thus fully described my improved method what I claim as new there-

in and which I desire to secure by Letters Patent is:

The mode or method of transporting a vessel across shoals or bars, by means of a camel having an unyielding platform for the vessel to rest on, and likewise provided with a bow as herein described, the vessel being partly water borne and partly supported by the camel.

I. A. WINSLOW.

Witnesses:
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