

J. RILATT.
Bilge-Pump for Vessels.

No. 213,450.

Patented Mar. 18, 1879.

FIG. 1.

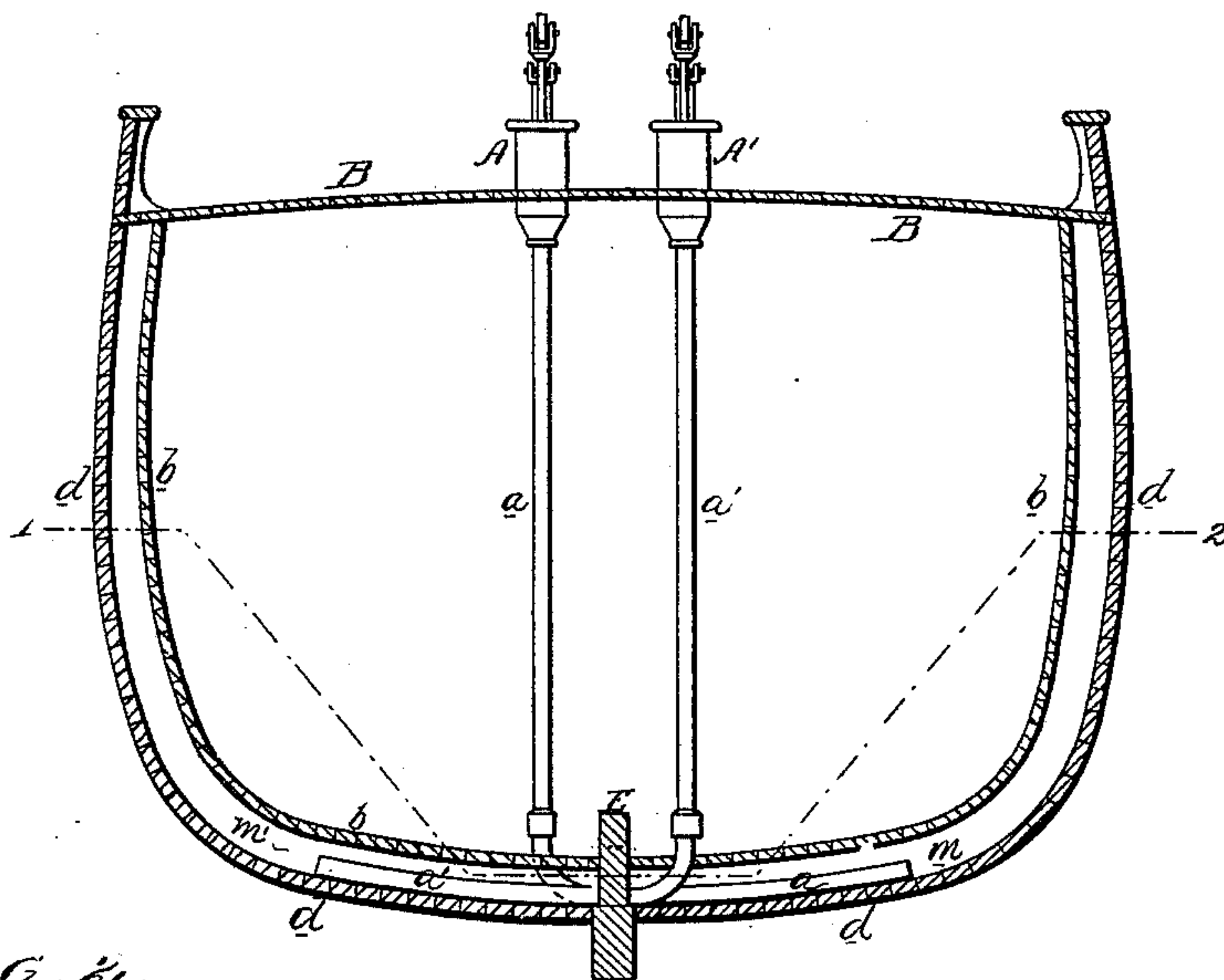


FIG. 2.

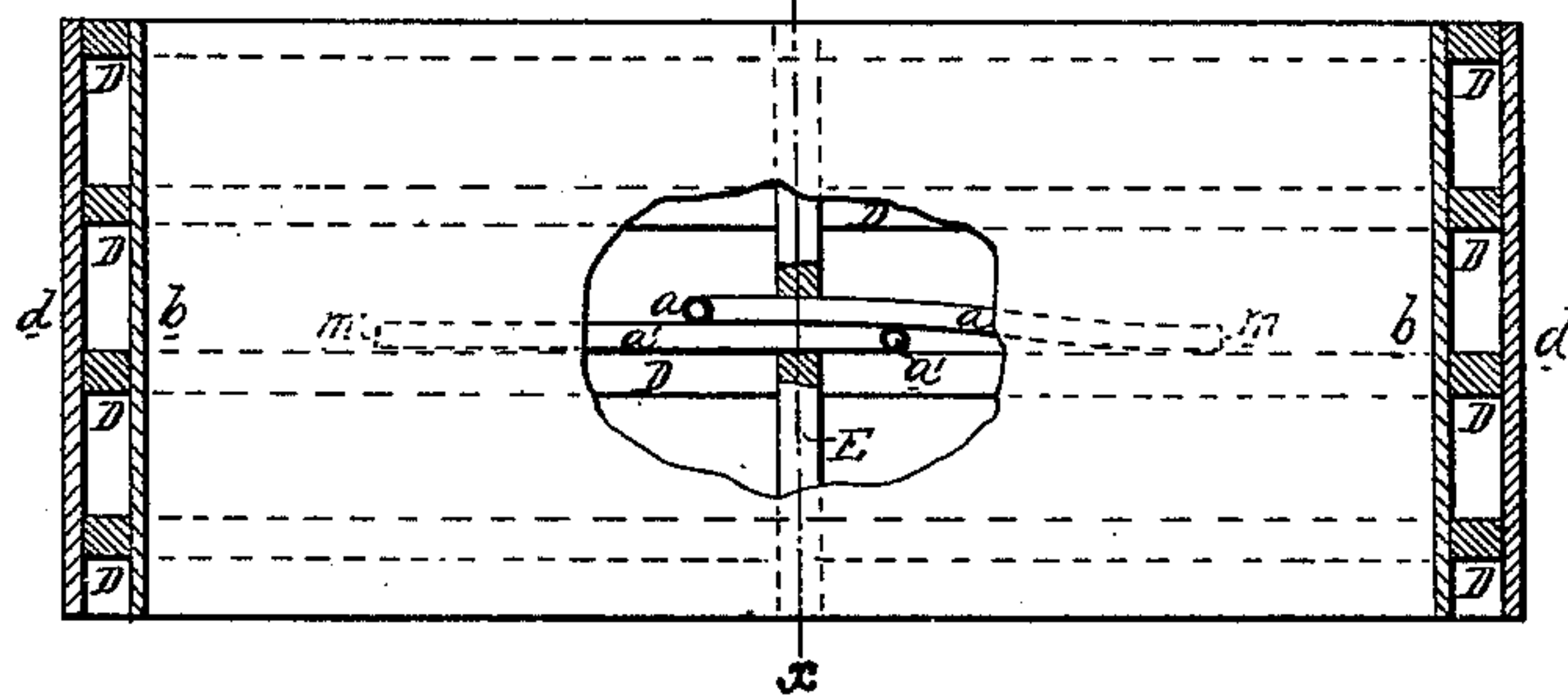


FIG. 3.

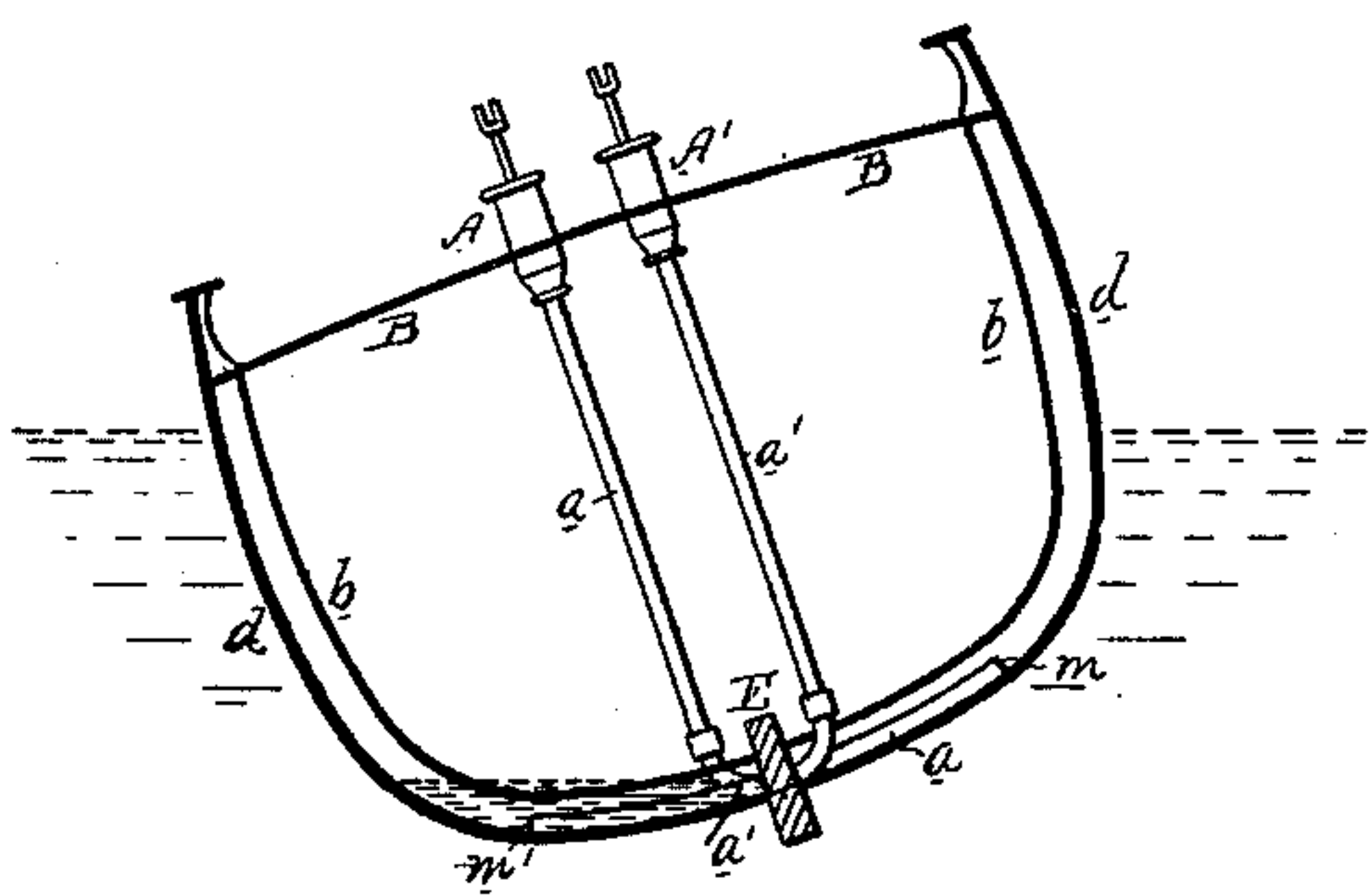
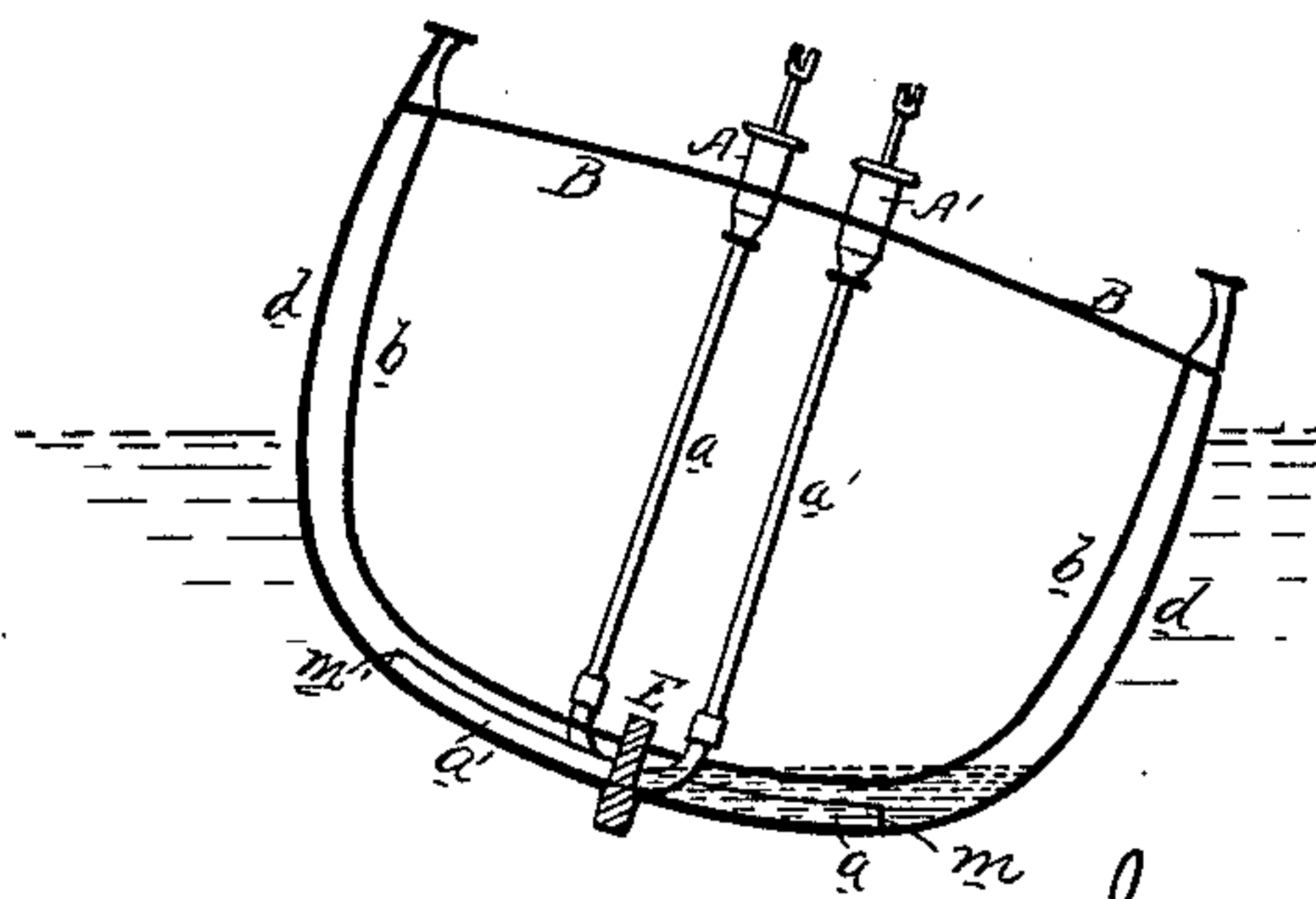


FIG. 4.



Witnesses
Henry Howson Jr.
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by his Attorneys
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UNITED STATES PATENT OFFICE.

JOSEPH RILATT, OF PETTY'S ISLAND, NEW JERSEY.

IMPROVEMENT IN BILGE-PUMPS FOR VESSELS.

Specification forming part of Letters Patent No. **213,450**, dated March 18, 1879; application filed January 15, 1879.

To all whom it may concern:

Be it known that I, JOSEPH RILATT, of Petty's Island, Camden county, New Jersey, have invented a new and useful Improvement in Bilge-Pumps for Vessels, of which the following is a specification:

The object of my invention is to so construct a pair of pumps, and so arrange them on a vessel, that the pump on the windward side will communicate with the water in the bilge on the leeward side on whichever tack the vessel may be sailing.

This object I attain by arranging the pumps on opposite sides of the longitudinal midship-line of the vessel, and carrying the suction-pipe of each pump to the bilge on the opposite side of the said midship-line.

In the accompanying drawings, Figure 1 is a transverse section of a vessel provided with bilge-pumps arranged according to my invention; Fig. 2, a sectional plan on the zigzag line 1 2; and Figs. 3 and 4, diagrams, illustrating the advantages of my invention.

Pumps are ordinarily arranged amidships, the suction-pipes terminating near the keel, so that when the vessel is on either tack the bilge-water settling on the lee side will, in many cases, be away from the mouth of the pipe, and cannot be withdrawn from the hold by the pumps.

Attempts have been made to overcome this difficulty by providing the single suction-pipe of the pump at the lower end with branches leading to the bilge on both the starboard and port sides of the vessel; but this plan necessitated the use of valve-boxes and valves at those points where the branches joined the main suction-tube, so that the branch on the windward side could be cut off from communication with said main tube. These valves were not only liable to get out of order, but were difficult to operate from the deck of the vessel.

I overcome the above objections by using two pumps, A A', arranged on opposite sides of the longitudinal midship-line *x x* of the vessel, as shown in Figs. 1 and 2, the barrels of the pumps extending below the deck B,

and communicating with suction-pipes *a a'*, smaller in diameter than the pump-barrels, both pumps and pipes being preferably made of iron.

The pipes *a a'* pass downward through the inner planking, *b*, thence through the keelson to the space between the said inner planking and the outer planking, *d*, and between adjacent ribs D of the vessel.

The pipe *a* of the pump A on the port side of the vessel terminates in the bilge *m* on the starboard side of the keelson, and the pipe *a'* of the starboard pump A' terminates in the bilge *m'* on the port side.

By this arrangement the pump on the windward side of the vessel always communicates with the bilge on the leeward side, where the water accumulates, as shown in the diagrams in Figs. 3 and 4, so that not only can the operation of pumping be conducted by one or other of the pumps when the vessel is on either tack, but the men who are working the pump can always stand on the windward side, where they are out of the way of the boom, and are in a much safer position than if stationed on the leeward side.

The pumps, moreover, are not dependent for their proper action on valves located in comparatively inaccessible positions, as in the case of a single pump with the branches referred to above.

I claim as my invention—

The combination of the pumps A A', arranged on opposite sides of the longitudinal center-line of the vessel, with suction-pipes *a a'*, each pump and its suction-pipe being entirely independent of the other, and the suction-pipe of each pump extending into the bilge on the side of the vessel opposite that on which the pump is located, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH RILATT.

Witnesses:

WM. J. COOPER,
HARRY SMITH.