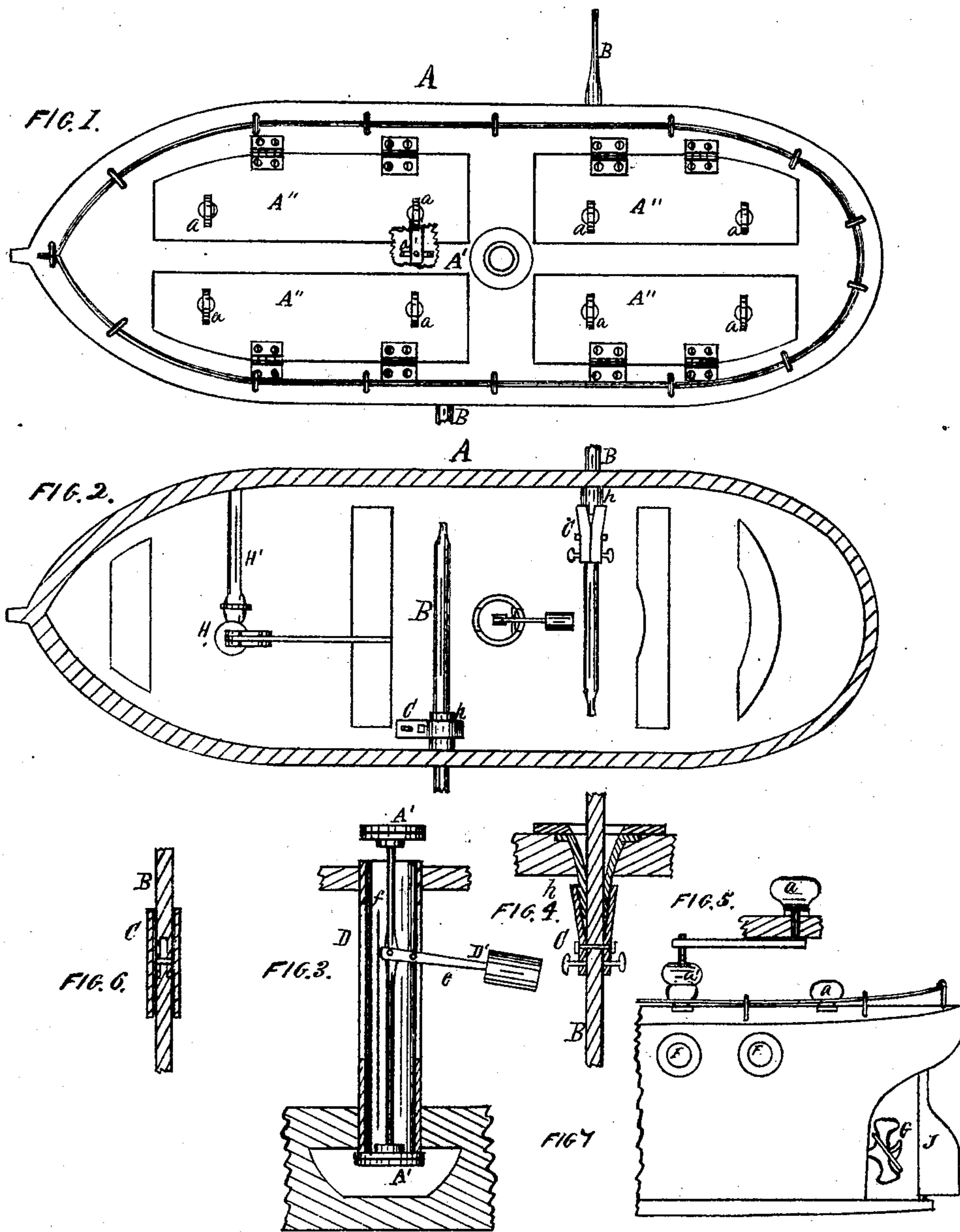


M. CUSON.  
Life-Boats.

No. 149,377.

Patented April 7, 1874.



Witnesses  
*John F. Heare*  
*S. N. Hunt*

Inventor  
*Mitchel Cusson*  
*Per Briggs & Company*  
*His Attys*



# UNITED STATES PATENT OFFICE.

MITCHEL CUSON, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN LIFE-BOATS.

Specification forming part of Letters Patent No. **149,377**, dated April 7, 1874; application filed December 26, 1873.

*To all whom it may concern:*

Be it known that I, MITCHEL CUSON, of Chicago, Illinois, have invented new and useful Improvements in Life-Boats, of which the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention relates to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a top view; Fig. 2, plan, with deck removed; Fig. 3, an enlarged vertical section of the air-tube and valves, showing the manner of opening and closing the same; Fig. 4, enlarged section of the oar, showing the manner of securing the same to the boat; also, showing the manner of securing the rubber-sleeve to the oar and to the side of the boat; Fig. 5, enlarged side elevation of the button. Fig. 6 is a section of oar, showing the manner of supporting the joint. Fig. 7 is a side elevation of the after part of the boat, showing wheel and dead-lights.

Similar letters of reference indicate like parts in the several figures of the drawing.

The object of my invention is to construct a life-boat in such a manner that, if the same be capsized, it cannot fill with water, nor wash out the occupants of the boat.

For this purpose the boat A is decked over, as seen in Fig. 1, and the deck provided with one or more hinged doors or hatches, A'', the same being arranged to open or close, at the will of the occupant, the same being secured when closed by the button *a*. This button is turned under the frame of the deck, and the thumb-screw *a'* set up. This secures the hatch down firmly, shown in Fig. 1, when a portion of the deck is removed, and shows in Fig. 5 how the same is secured to the hatch. In order that air may be introduced to the inside, the boat is provided with an air-tube, D. This tube is perforated at *e* that the air may pass into the boat. The ends of the air-tube are provided with valves A' connected together by means of rod *f*. To this rod is pivoted the weighted lever D', having a ful-

crum on the outer surface of the tube, as shown in Fig. 3. These valves operate automatically—let the boat be either side up, the valve that comes in contact with the water closes and the top one opens, allowing the air to pass into the boat.

To provide for the necessity, in case any water should accumulate in the boat from leakage or accident, a small suction and force-pump, H, is placed in the same, with waste-pipe H' leading out of the side of the boat.

In order that the boat may be propelled by oars, and no water enter at the point where the oar passes through the side, a rubber sleeve, *h*, is provided, one end being larger than the other, the larger end being secured to the outer or inner surface of the boat, as shown in Fig. 4, the smaller end of the same passing through the aperture in the side of the boat to the inside. The oar B is passed through the sleeve to the desired position. The smaller end of the sleeve is then secured to the oar B by means of clamps C, making the aperture through which the oar passes water-tight. The oars B are jointed, that they may be shipped from the inside; and, in order that they may be held firmly at the joint when in use, the smaller end of the rubber sleeve *h* joins the oar at this point. The clamp C is then placed over the joint, and in this position the thumb-screws forced down, the clamp forcing the rubber down upon the oar, and by this means securing the sleeve and the joint at the same time. The boat A is also provided with a propeller-screw, G, operated from the inside, by means of a crank or levers. The rudder J is also operated by a tiller upon the inside, and, to avoid leakage, the post is packed where it passes through the boat. The boat is also provided with dead-lights F, one or more, that those within can see in what direction they are going.

I am aware that a life-boat is in operation at the present time operated by means of ropes attached at each end, one leading to the vessel and the other to the shore, and is covered, the same being drawn to the vessel by

those on board, and drawn back by those on shore. I disclaim all connection with such invention; but

What I do claim is—

1. The rubber sleeve *h*, in combination with the clamp *C*, for the purpose of keeping the water from entering a boat at the point where the oar passes through the same, substantially as and for the purpose specified.

2. The combination of the button *a* and

thumb-screw *a'*, when applied to the hatch-covers of a life-boat, and adapted to be operated from below, substantially as set forth.

The above specification signed by me this 18th day of December, 1873.

MITCHEL CUSON.

Witnesses:

C. W. CRARY,  
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