T. W. CASEY.
Life-Boat.

No. 196,874. Patented Nov. 6, 1877.

Fig. 1.

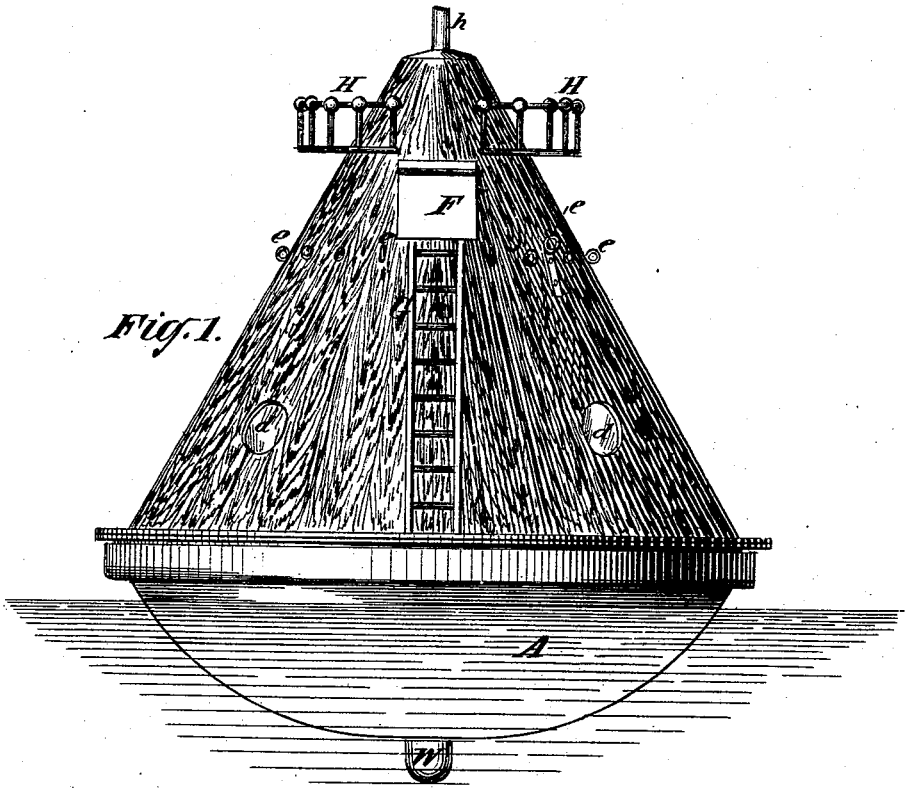
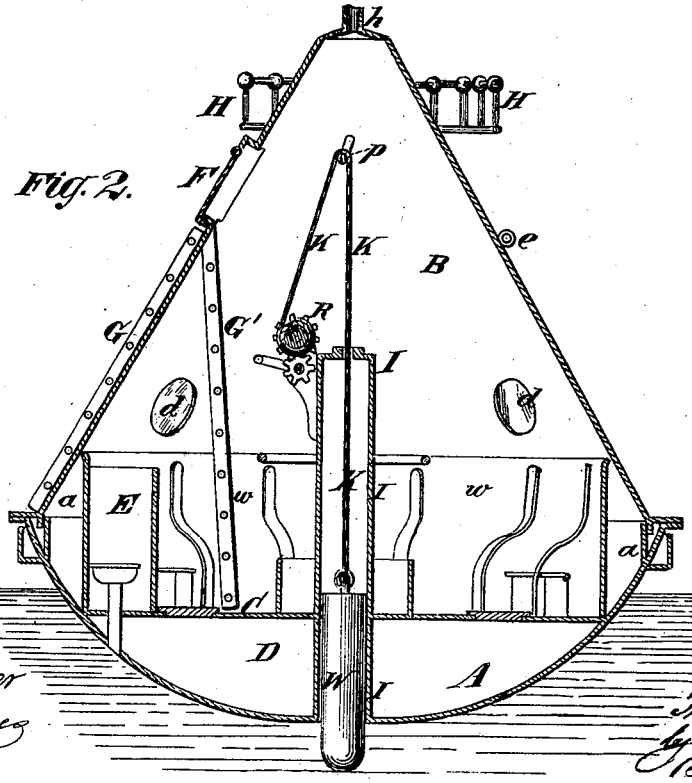


Fig. 2.



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UNITED STATES PATENT OFFICE.

THOMAS W. CASEY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN LIFE-BOATS.

Specification forming part of Letters Patent No. **196,874**, dated November 6, 1877; application filed August 28, 1877.

To all whom it may concern:

Be it known that I, THOMAS W. CASEY, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Life-Boats; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention has for its object the construction of a life-boat which enables its occupants to survive, in safety and comparative comfort, for a long time at sea, and which shall also be visible at a much farther distance than life-boats usually are.

The invention partly consists in the combination, with a boat or vessel, of novel means for ballasting the same, and partly in the novel construction of the hull of a boat or vessel for life-saving purposes at sea.

Figure 1 in the drawings represents a side view of the boat or vessel, and Fig. 2 a vertical central section of the same.

Said boat or vessel is made with a concavo-convex bottom, A, preferably, but not necessarily, circular in form, and with a conical, conoidal, or pyramidal top, B, which completes the hull of the said boat or vessel. If the said bottom A be circular in plan, the said top B will be conical in form. If the said bottom be elliptical in plan, said top will be conoidal in form. If the said bottom be angular in plan, said top will be pyramidal in form.

In the lower part of the hull so constructed, I form a deck, C, Fig. 2, beneath which is a capacious hold, D, for storage of water and provisions. Upon the said deck are arranged, around the outer part of the same, comfortable seats and lockers for the storage of articles. At one side of said deck I also place a water-closet, E.

The entrance to the hull is a door, F, to which access is gained by a ladder, G, attached to the outside of the hull. G′ is a ladder descending from said door into the interior of the hull. Said interior is also provided with other conveniences and appurtenances for the comfort and security of passengers. Around the outer border of the deck is attached a vertical wall, *w*, which cuts off and, together with the outer shell of the hull, incloses an annular air-space, *a*, which gives great steadiness to the vessel when floating on the water, and which also acts to retain water, should a leak occur, and keep it from wetting the deck C or discommoding the occupants of the boat.

The boat or vessel is, moreover, furnished with dead-lights *d* for lighting the interior. It is also supplied with eyes *e* for the attachment of life-lines. On the outside, near the apex of the vessel, is a balcony, H, easily accessible from the door F, upon which a lookout may be stationed, or from which signals may be placed or adjusted in a socket, *h*, placed at the said apex.

In the center of the said boat or vessel is placed a vertical tube, I, which extends through the deck C and bottom A, and which is open at its lower end. The upper end is closed, except that a small opening is left for the passage of the cord K. The said cord passes over a bent bar, *p*, or, if preferred, a pulley-block may be substituted for the said bar. When the bent bar is used, it is pivoted at its ends, and plays easily in suitable bearings attached to the inside of the upper part of the boat. To the lower end of the cord K is attached a weight, W, fitted to play easily in the tube I. The opposite end of the cord K is wound upon a windlass, R, by means of which the weight W is raised or lowered to any required distance. The said weight is made sufficiently heavy, and placed directly under the center of gravity of the boat or vessel, and it has, by virtue of the manner of its attachment to the boat and its position relative thereto, such purchase upon the boat as to prevent capsizing, even in the roughest weather, and to bring the boat into an upright position, no matter in what position it may be thrown or cast upon the water.

The circular plan for the boat is preferred, as this form gives greatest capacity with least material and weight, and also causes the adjustable central ballast-weight to act with equal purchase in all directions.

In the boat or vessel thus constructed many persons may remain for a long time in comparative comfort, protected from wind, sun, and rain, and the boat may carry a supply of provisions sufficient to last its occupants for weeks. The form of the boat also gives it greater alti-

tude than ordinary boats, which enables the signals to be kept more elevated, and increases the probability that the boat will be discerned and succored by passing vessels.

I do not broadly claim the central ballast-weight, as the same has been before employed; but

What I consider as my invention, and desire to secure by Letters Patent, is as follows:

1. The combination, with the hull of a boat having the concavo-convex bottom A and conical, conoidal, or pyramidal top B, and central ballast-weight W, attached to a rope for raising or lowering said weight, of a loop or pulley, *p*, placed in the interior of the top B, near the apex of said top, substantially as and for the purpose set forth.

2. The hull of a life boat or vessel consisting of a concavo-convex bottom, A, and a conical, conoidal, or pyramidal top, B, attached to said bottom, in combination with a central tube, I, attached to and passing through said bottom, for the reception of a ballast-weight, substantially as and for the purpose specified.

THOS. W. CASEY.

Witnesses:

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