

# R. Humble. Life Boat.

N<sup>o</sup> 107,912.

Patented Oct. 4, 1870.

Fig. 1.

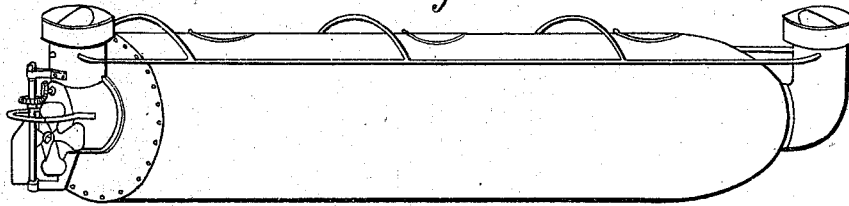


Fig. 2.

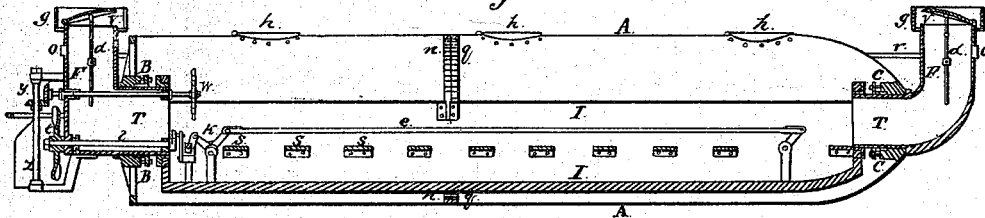


Fig. 3.

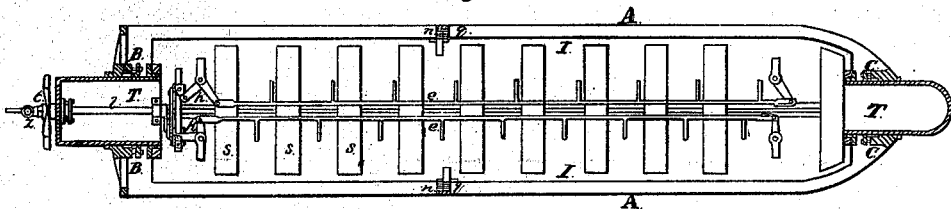


Fig. 4.

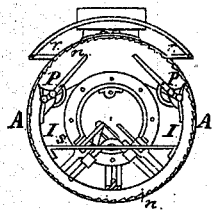
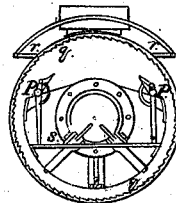


Fig. 5.



Witnesses

Robt. A. Austin  
Emil Waller

Inventor.

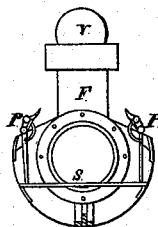
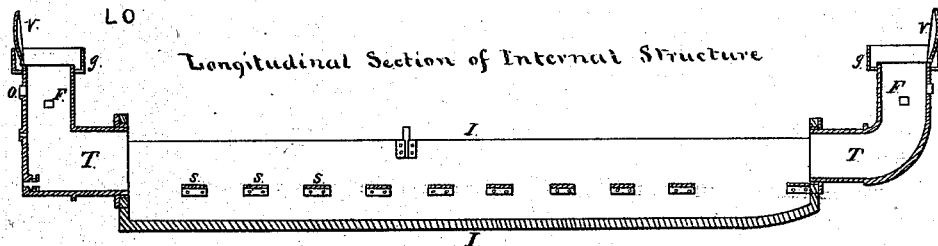
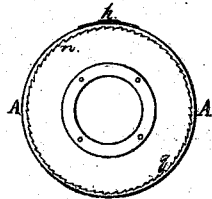
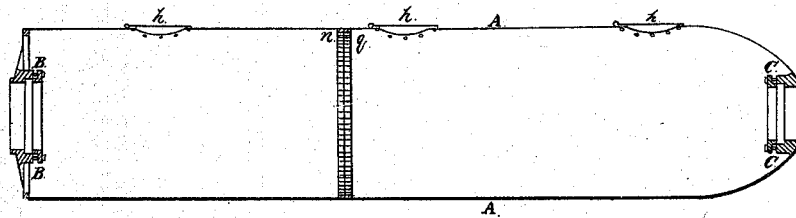
Robert Humble

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LONGITUDINAL SECTION OF EXTERIOR SHELL



*Witnesses:*  
*Robt. A. Austin*  
*Emil Waller*

*Inventor*  
*Robert Humble*

# United States Patent Office.

ROBERT HUMBLE, OF MILWAUKEE, WISCONSIN.

Letters Patent No. 107,912, dated October 4, 1870.

## IMPROVEMENT IN LIFE-BOATS.

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, ROBERT HUMBLE, of the city and county of Milwaukee, and State of Wisconsin, have invented a new and improved Life-Boat, designed to be carried on vessels, ships, and steamers, while at sea, to be used in case of accident, or to be kept at stations and points on dangerous coasts, and to be employed in rescuing and saving persons and property in case of shipwreck; and I do declare that the following is a full and exact description of my invention, reference being had to the accompanying drawing.

The nature of my invention consists in constructing a boat of two principal parts, which, in combination and conjunction, form a complete whole to subserve the purpose designed.

The one part is a hollow water-tight cylinder or tube; the other is a boat, constructed within the former.

The combination is such that the cylinder or tube is made to completely surround the boat built within it, and when required to revolve about it, the surrounding part shielding and protecting the structure within, and its attachments and contents from the violence of the waves, serving not only as an incasement, but, by its action and a proper balancing and adjustment of the inclosed parts, greatly increasing the facility and safety of launching, no matter what the contents, or in what manner it is cast into the water.

In explanation of the construction and design, reference is made to the drawing, as follows:

Figure 1 represents a perspective view of the boat as complete.

Figure 2 represents a longitudinal section through center of trunnions and air-pipes.

Figure 3, a horizontal section through center of trunnions and air-pipes.

Figure 4, a transverse section looking toward the stern of the boat.

Figure 5, a transverse section, looking toward the bow of the boat.

The same letters of the alphabet are used to indicate like parts in the structure or machinery.

The following is a specified description of the parts, and their relations and uses, as shown by diagram designated Figure 2.

A A, the hollow water-tight cylinder or tube, outside of and surrounding the interior structure and its belongings, the walls of which are designed to be as thin and shell-like as the strength required, and the nature of the material used, will permit.

B B and C C, the bearings and stuffing-boxes, accurately bored, and firmly attached to either end of the cylinder or tube, and as nearly at the center of each end as may be practicable or desirable.

h h h represent the hatchways, with their covers.

having rubber joints, and these covers may be so constructed as to admit light when closed, by means of the use of thick glass, fastened in strong framework.

The covers may be secured, when closed, by screws or otherwise.

I I indicate the interior part or the boat proper, with hollow trunnions attached to each end, fitted so as to work smoothly in the bearings and stuffing-boxes B B and C C, and around which, as points of support, the hollow cylinder or tube revolves.

F F are pipes, firmly fastened to the trunnions T T by screws or otherwise, intended to extend above the top of the boat.

T T are hollow trunnions, fastened to each end of the interior part or boat, passing through the hollow cylinder or tube at each end at the bearings and stuffing-boxes B B and C C.

V V are valves in each pipe at the top, as shown in the drawing, designed to admit both light and air, when opened, and the aperture into which they are fitted is designed to be large enough to permit a man to pass in or out easily.

These valves may be closed and opened by floats outside of the pipes, or by rods, as seen in the diagram.

O O are lookouts or round windows, which may be closed permanently by thick glass, or as the port-holes of a ship.

n and g represent ratchet-wheels, securely affixed to the inner side of the hollow cylinder A A.

S S S are seats in the internal part of the boat.

W is a steering-wheel, attached to a shaft, which communicates with the beveled wheel y, the latter attached to the rudder-stem z.

Fig. 3 is a horizontal section, showing rods e e, to which handles are fixed, designed to illustrate the mode of propelling the boat by hand, the motion being imparted to the rods e e by the small handles attached, is communicated to the lever K, and from thence, by means of the shaft l, to the wheel t, although it is claimed that the boat may be propelled by the use or application of any kind of power.

Figs. 4 and 5 are transverse sections.

A A is the cylinder or tube, surrounding the internal boat or part, to which are bolted the ratchet-wheels n n g g, the beveled teeth of which wheels are reversed, or, as commonly termed, right-and-left-handed.

P P are pawl-levers, attached to the internal boat I I, and are intended to be used to turn the cylinder, and bring it in such position as shall cause the hatchways to be at the top.

These levers, as shown in fig. 4, are in gear, locking or fastening the external cylinder, thereby keeping it in position, and preventing it from revolving.

Fig 5 shows the levers P P out of gear, allowing

the cylinder A A to revolve freely upon the trunnions.

R R is a hand-rail, attached to the pipes F F, as shown in figs. 1, 4, and 5, to which life-lines may be attached.

What I claim as my invention is—

1. An improved life-boat, constructed with the exterior hollow water-tight shell A A made in any desirable shape or form, and of any suitable materials, with bearings and stuffing-boxes B B and C C at each end, and with the internal structure I I, to which, at each end, is firmly attached the hollow trunnions T T and air-pipes F F.

2. The combination of a water-tight shell or case A, provided at each end with bearings or stuffing-boxes B C, with an internal structure or frame I

mounted therein on its trunnions T T, substantially as described, for life-boat purposes, as set forth.

3. The tubular passage F F, in combination with the hollow trunnions T T, when constructed and arranged substantially as described, for the purpose of admitting air, as well as for entering and leaving the boat, as set forth.

4. In combination with a life-boat, consisting of the outer case A and inner structure or frame I, as described, the ratchet-wheels *n* and *g*, and pawl-levers P P, or other suitable mechanism for operating the outer case, as set forth.

May 16, 1870.

Witnesses:

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EMIL WALLBER.