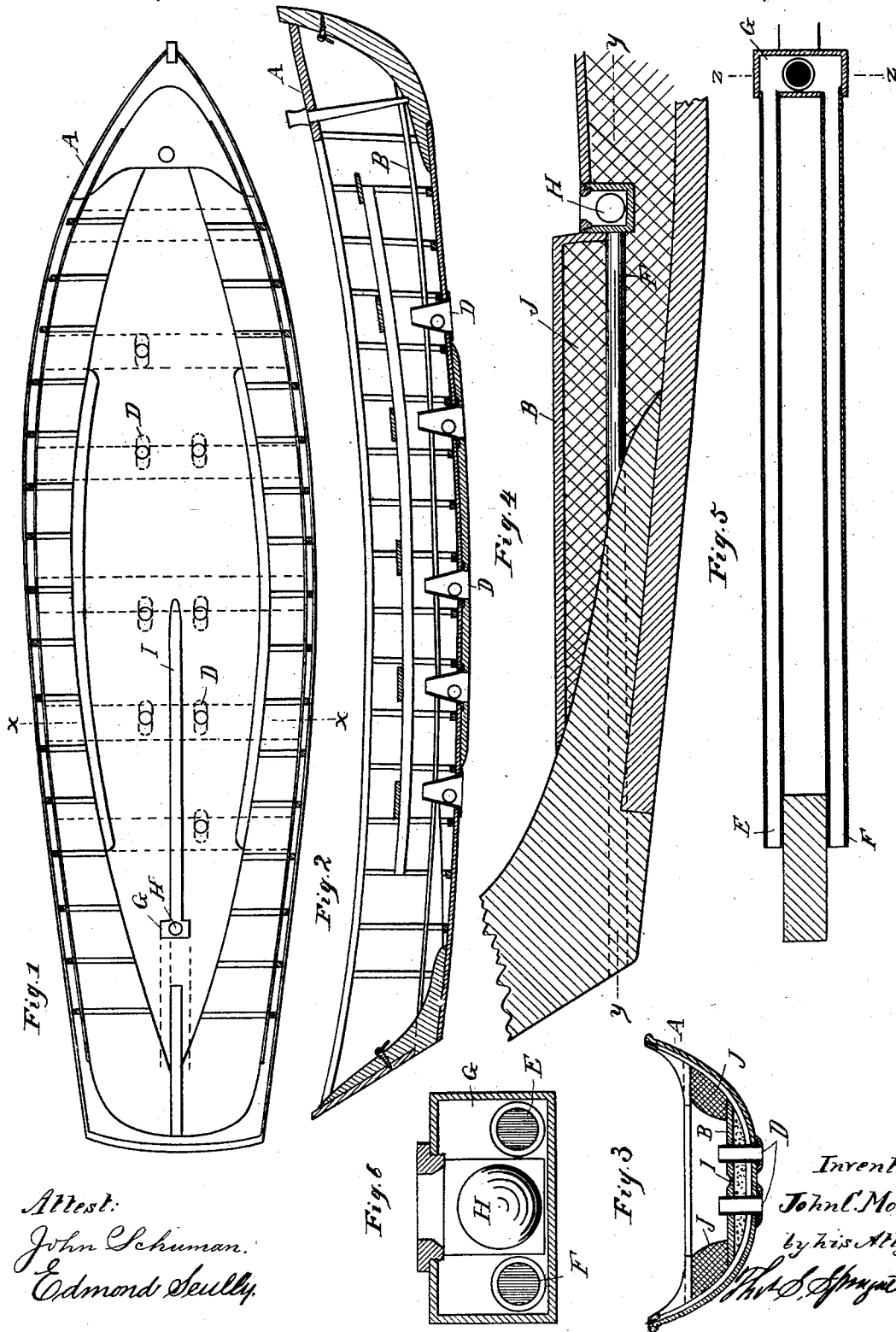


(No Model.)

J. C. MOORE.
LIFE BOAT.

No. 364,277.

Patented June 7, 1887.



Attest:
John Schuman.
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UNITED STATES PATENT OFFICE.

JOHN C. MOORE, OF THE UNITED STATES REVENUE MARINE.

LIFE-BOAT.

SPECIFICATION forming part of Letters Patent No. 364,277, dated June 7, 1887.

Application filed July 29, 1886. Serial No. 209,399. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. MOORE, of the United States Revenue Marine, have invented new and useful Improvements in Life-Boats; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in life-boats; and the invention consists in the peculiar construction, arrangement, and combination, with a boat, of self-bailing devices; and, further, in the means employed for obtaining the necessary buoyancy of the boat, all as hereinafter described.

In the drawings which accompany this specification, Figure 1 is a plan of my improved boat. Fig. 2 is a vertical central longitudinal section thereof. Fig. 3 is a cross-section on line *xx* in Fig. 1. Fig. 4 is an enlarged vertical longitudinal section through the stern of the boat. Fig. 5 is a horizontal section through line *yy* in Fig. 4. Fig. 6 is a cross-section on line *zz* in Fig. 5.

A is a row-boat of usual construction, preferable clinker built, with a flat or nearly flat bottom, and with the bow and stern rising somewhat higher above the midship portion than in the ordinary row-boat. This boat is provided with a false bottom, B, near or below the water-line, and the space between the two is packed with "tule"—a species of reed of great buoyancy growing on the Pacific coast, and which I find better adapted than cork or the other materials now in use for that purpose, as it is not as liable to deteriorate. Passing through this light stuff and through the true and false bottom are open-ended tubes D, which carry out the water shipped by the boat in a heavy sea. To prevent the ingress of water, each tube is made conical and provided with a ball-float, which, when carried by its buoyancy to the top of the tube, as under normal conditions of sailing, completely closes the upper end thereof; but when relieved of its buoyancy, as is the case when the boat is raised up on top of a wave, drops below, and thereby affords an open passage to the water which may be contained in the boat to run out.

The tubes are preferably made in the form of a flattened truncated cone, as shown, with

the larger diameter in the direction of the length of the boat, and with the smaller diameter sufficiently contracted at the base to prevent the ball from falling out, without, however, interfering with its free play within the tube. These tubes are preferably made to project above the bottom of the false floor, and to be out of the way I place them under the seats and near the center-line of the boat. There are eight of them shown in the drawings; but their number may be greater or less, as circumstances may require.

E and F are two open-ended draining-tubes in the stern of the boat. They are placed in the longitudinal center and far enough apart to avoid the keel and stern-post. They have suitable inclination to permit any water in the boat to drain off through them. At their inner ends the two draining-tubes connect with a receiving-well, G, placed below the false bottom, and containing an opening in the top and inclosing a ball, H, which operates within the well in the same manner as the balls in the tubes D. A gutter, I, is preferably cut in the top of the false bottom, to lead the water into the well G.

Cork banks J are placed along the sides of the boat and in other suitable vacant spaces, to give the boat such increased buoyancy that it will float the crew even if filled with water, and if upset will have a tendency to right itself in connection with the curved shape of the boat.

In practice the buoyancy of the boat is so adjusted that in case it gets swamped or capsized it will right itself and rest on an even keel, and the water in the boat will be lifted above the level of the water outside, and thereby displace the ball-floats in the draining-tubes D downwardly and run out. The same condition for draining is brought about if the boat is lifted on top of the wave or rides on the surf.

The draining-tubes in the stern of the boat act under the same condition as the draining-tubes D; but, in addition thereto, they act also by the suction created at the stern when the boat is under headway, and thereby act also as a self-bailing device during the normal condition of the boat in sailing, and supplement the action of the draining-tubes D.

It is clear that instead of the ball-floats other kinds of float-valves may be used, although I

prefer the former. I also prefer to make the tubes D high enough to prevent the floats from being normally seated.

What I claim as my invention is—

- 5 1. In a life-boat, the combination of the open-ended draining-tubes D, of a flattened conical shape, with their larger diameters in the direction of the length of the boat, substantially as described.
- 10 2. The combination, with the false bottom and open-ended draining-tubes E F through the stern of the boat, of the well G beneath said bottom, and the gutter I, made in the top of said false bottom and communicating with
- 15 said well, substantially as and for the purpose specified.
3. In a life-boat, the combination of one or more open-ended draining-tubes through the

bottom of the boat and one or more open-ended draining-tubes through the stern of the 20 boat, said tubes being controlled by float-valves, substantially as described.

4. In a life-boat, the combination of the false bottom B, the tube banks J, and the open-ended draining-tubes D E F through the bottom and 25 stern of the boat, substantially as described.

5. In a life-boat, the combination, with the open-ended draining-tubes E F through the stern of the boat, of the well G and the ball-float H, all arranged to operate substantially as de- 30 scribed.

JOHN C. MOORE.

Witnesses:

H. S. SPRAGUE,
E. SCULLY.