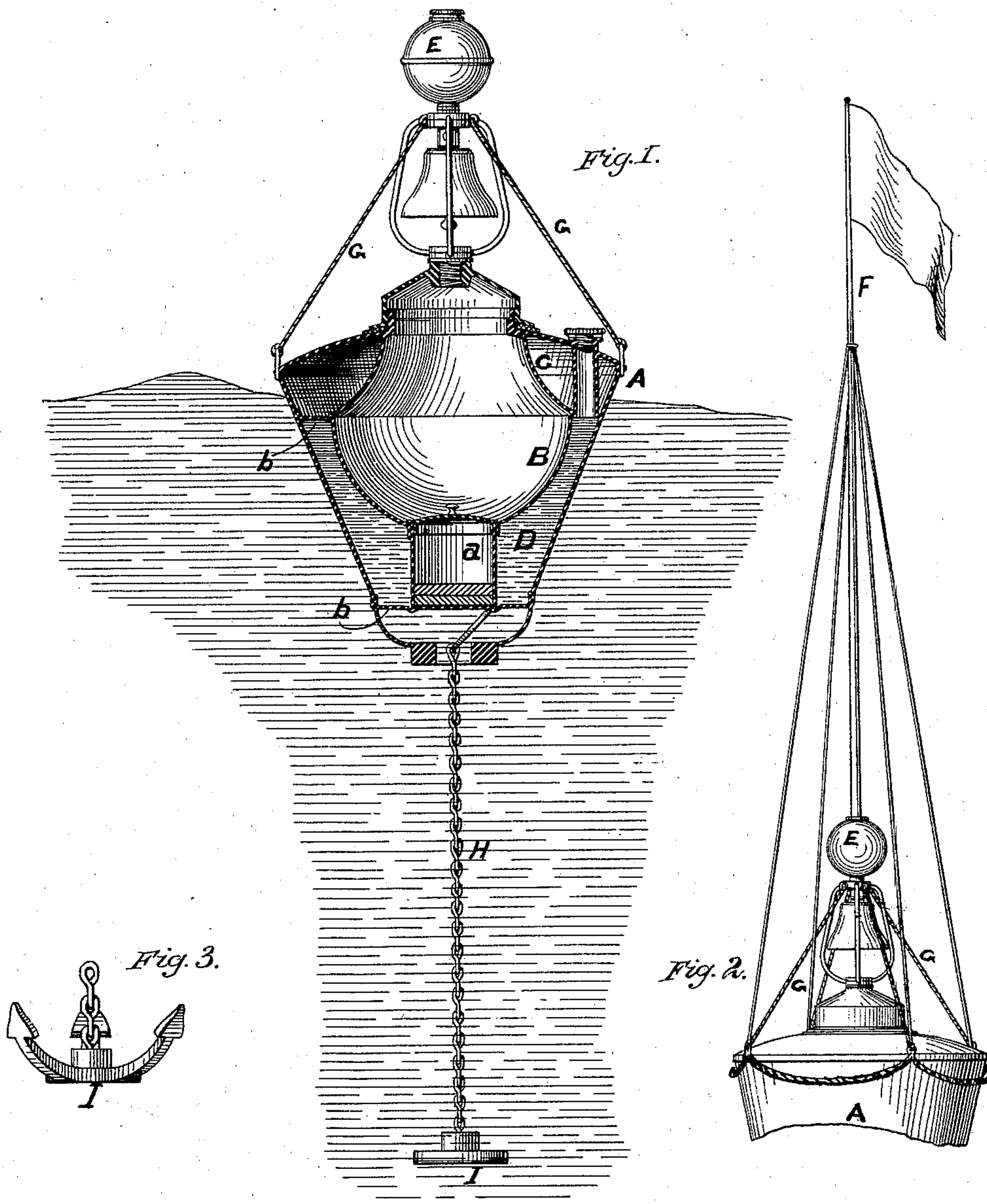


G. D. WYCKOFF.
Buoy.

No. 203,399.

Patented May 7, 1878.



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UNITED STATES PATENT OFFICE.

GEORGE D. WYCKOFF, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BUOYS.

Specification forming part of Letters Patent No. **203,399**, dated May 7, 1878; application filed September 11, 1877.

To all whom it may concern:

Be it known that I, GEO. D. WYCKOFF, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Floating Buoys, designed for the rescue of treasure or valuable papers in case of shipwreck, as well as the possible saving of life, of which the following is a specification:

To this end it consists of a vessel of suitable form and material proper to withstand for a long time the action of sea-water and the shocks of the waves beating upon it, or the battering upon the beach, if it should be carried ashore by waves or currents. Within the outer shell of this buoy there are several inner compartments, formed by an interior shell and diaphragm, so that if the outer shell should become damaged or perforated it would not therefore follow that the buoy should sink or its load become damaged. There is also provision for the storing of a limited quantity of food and water, which might afford sustenance to a shipwrecked person for a time. There is also attached to said buoy a ballast weight or counterpoise, which serves to keep the buoy right side up under all circumstances. There are also means whereby the buoy may be caught up by a boat-hook or grapnel from a passing boat or vessel, and which may also serve as hand-holds, to be seized by a swimmer or person in the water, who may thereby be enabled to save his life.

That others may fully understand my improvement, I will more particularly describe it, reference being had to the accompanying drawings, wherein—

Figure 1 is a vertical section of my buoy in operative position. Fig. 2 is an elevation, showing my buoy with flag-staff attached; Fig. 3, a perspective elevation of a counter-weight with flukes, whereby the buoy will become anchored if it floats into shallow water or is thrown upon the beach.

A A is the outer shell of my buoy, which may be made of any suitable material, and in such form as experience may make preferable. Within the shell A there is an inner shell, B, which forms the depository of papers or treasure which it is designed to commit to the care of this buoy. The space between the shells

A and B is divided by diaphragms *b* into two or more chambers or compartments, C D, for the purpose of giving the structure additional strength and stability, and, by making said partitions water-tight, to decrease the liability of the sinking of the buoy in consequence of fracture of the shell A.

The chambers C D, &c., may also be used for the storage of water and provisions, if desirable, by the addition of proper openings communicating with said chambers, and proper covers to close said openings.

In the drawings the chamber D is shown as filled with fresh water, which may be used for the sustenance of any person who may be clinging to the buoy.

In this connection it is proper to state that it is contemplated to construct these buoys of various sizes, ranging from a few inches in diameter, suitable to be hastily charged with a small volume of valuable papers and treasure, to be thrown overboard at the last moment in case of shipwreck, up to such size as will render the buoy a common receptacle for the valuables of a passenger-ship during the voyage, and sufficient for a safe refuge for a considerable number of people in case of wreck at sea. Hence in the interior structure of these articles changes will be necessarily introduced which cannot well be described herein; but such changes will not in any way alter the general structure and purpose of the instrument.

The chamber B is closed by an air and water tight cover. In small buoys this cover will be most conveniently arranged as a screw with an annular packing, as shown in Fig. 1. In large buoys it may be preferable to hinge it to the frame, though at present the screw appears most desirable for all purposes.

Above the top of the buoy there is a framework to support a beacon, E, which may be made hollow, so as to receive papers containing the last announcement or final directions for the finder, or such directions as may be addressed to the finder, if the main receptacle B is closed and locked, so that it can be opened only by the owners or consignees of the ship. The beacon E is elevated above the top of the buoy, so as to attract the eye; and a bell may be suspended below it, to give warning by its sound to passing vessels. A staff, F, may also

be added, with a flag, to be elevated still higher above the waves.

A stout hoop should be placed around the bilge of the buoy, and from it a number of stays, G, should be extended to the beacon-frame, not only to brace it, but to serve as hand-holds, whereby the buoy may be seized by a grapnel or boat-hook from a passing vessel, or whereby a person in the water may cling and sustain himself, possibly, until rescue arrives.

At the bottom of the chamber B there is an inner chamber, *a*, which may be closed with a cover. Said inner chamber is designed for the reception of ballast or heavy articles for rescue.

At the bottom of the buoy I attach a chain, H, and at the outer end of said chain a plate or disk, I. When the buoy is inboard said chain may be stored in a chamber in the bottom of said buoy, and when floating said chain and disk are dependent in the water, and serve as a counterpoise to practically lower the center of gravity of the mass, but principally to act as a floating anchor, to prevent the shock of the waves from turning the buoy over.

By the addition of flukes to the edge of said disk, as shown in Fig. 3, the buoy will become anchored when it floats into shallow water or is thrown upon the beach.

Having described my invention, what I claim as new is—

1. A safe-buoy constructed with outer and inner shells A B and diaphragms *b b*, so as to divide the interior space into separate compartments, as set forth.

2. A safe-buoy constructed with outer and inner shells A B, inclosing a chamber for the reception of papers or valuable articles, a ballast-chamber, *a*, water-chamber D, and air or provision chamber C, as set forth.

3. The safe-buoy A, provided with the chain H, secured in a chamber at the bottom of said buoy, said chamber having no opening to the body of the buoy, combined with the disk-shaped counterpoise I, secured to the free end of said chain, and adapted to close the opening in said chamber, as set forth.

4. The safe-buoy A, provided with a cable, H, attached to its lower end, combined with the disk-shaped counterpoise, provided with anchor-flukes radially placed along the edge of said disk.

5. A safe-buoy provided with a cable and combined with a counterpoise, I, constructed with anchor-flukes, as shown in Fig. 3.

GEO. D. WYCKOFF.

In presence of—

H. E. HINDMARSH,
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