

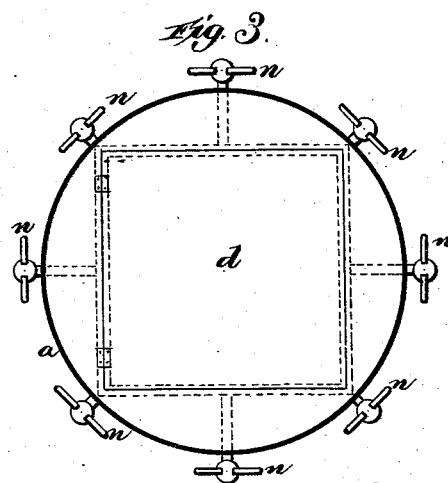
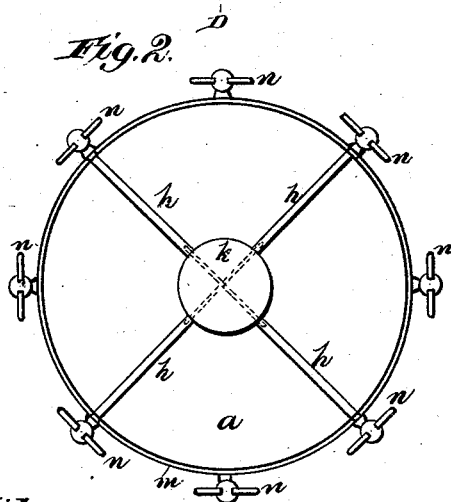
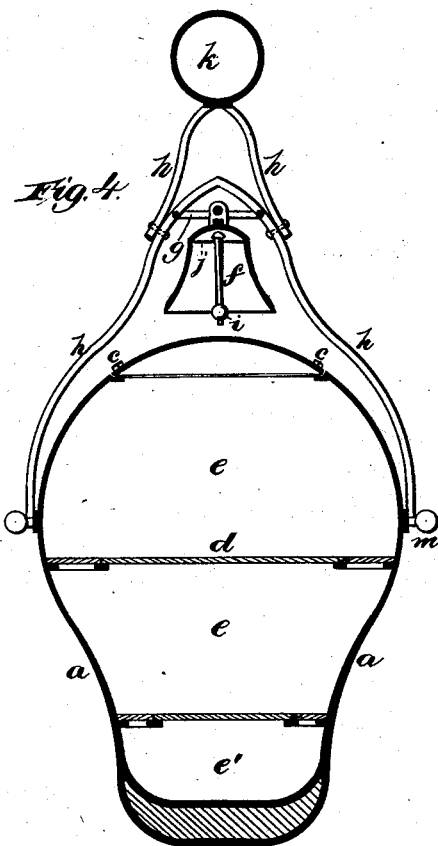
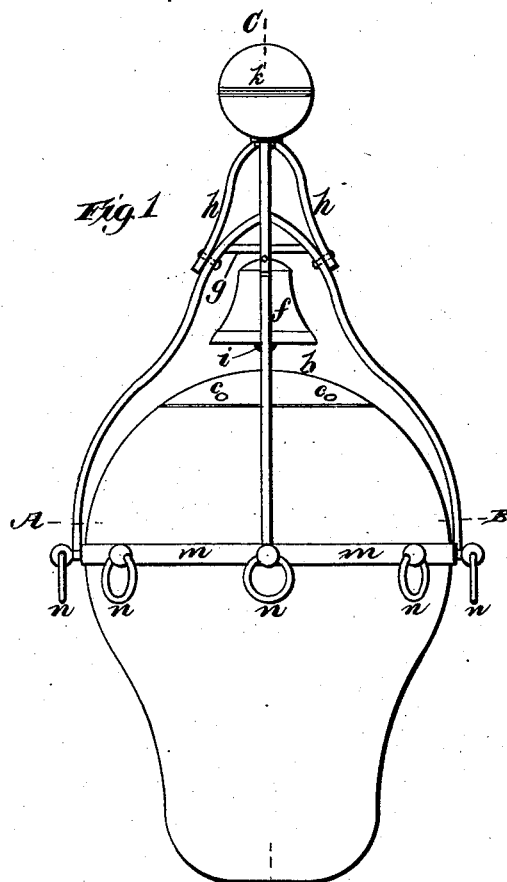
(No Model.)

2 Sheets—Sheet 1.

A. D. ROTH.
MARINE SAFE.

No. 260,325.

Patented June 27, 1882.



Witnesses.

Robert Everett,
a. J. C. Norris

Inventor.

Augustus D. Roth.

By James L. Norris,
Atty.

(No Model.)

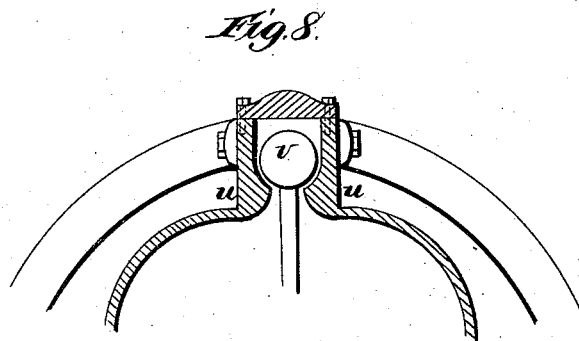
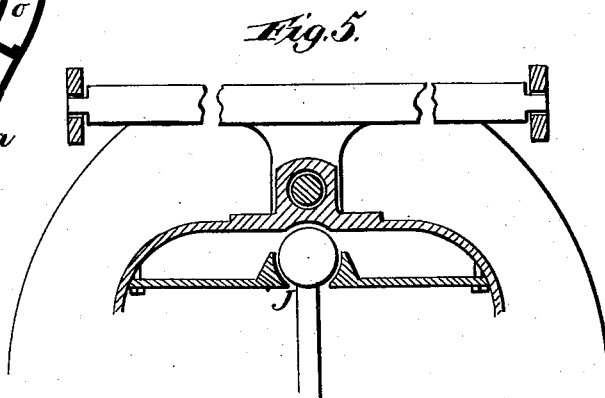
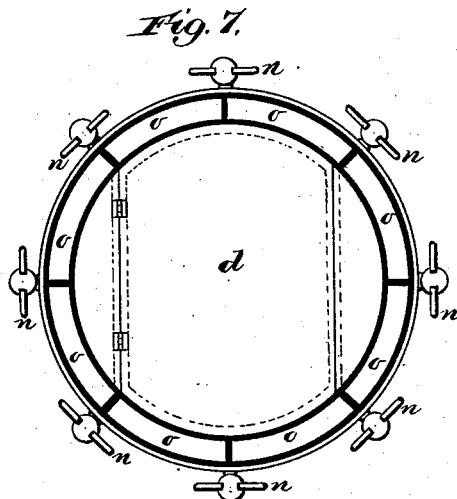
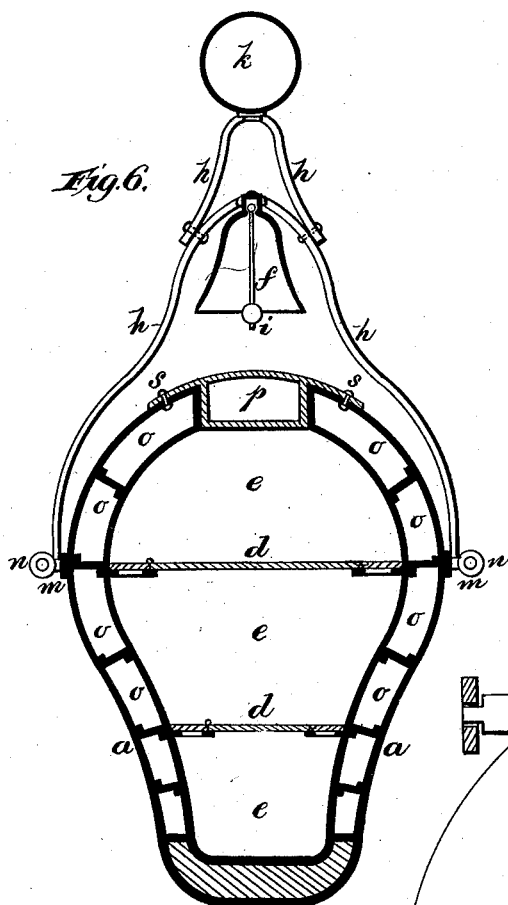
2 Sheets—Sheet 2.

A. D. ROTH.

MARINE SAFE.

No. 260,325.

Patented June 27, 1882.



Witnesses,
Robert Emmett,
A. H. Norris,

Inventor,
Augustus D. Roth.
By *James L. Norris,*
Atty.

UNITED STATES PATENT OFFICE.

AUGUSTUS D. ROTH, OF BLACKHEATH, COUNTY OF KENT, ENGLAND.

MARINE SAFE.

SPECIFICATION forming part of Letters Patent No. 260,325, dated June 27, 1882.

Application filed November 15, 1881. (No model.) Patented in England June 17, 1881, No. 2,658.

To all whom it may concern:

Be it known that I, AUGUSTUS DANIEL ROTH, a subject of the Queen of Great Britain, residing at Blackheath, in the county of Kent and Kingdom of England, merchant, have invented new and useful Improvements in Apparatus for Saving Life and Property at Sea, (for which I have obtained provisional protection in Great Britain, dated June 17, 1881, No. 2,658,) of which the following is a specification.

My invention consists in forming a floating buoy of any suitable shape and material, arranging and fitting up the interior of the vessel as a safe for documents, mails, bullion, or valuables, and attaching to the exterior of the vessel belts, bands, or loops at or about the line of flotation, so as to afford means of life-preservation when needed, or to suspend articles too bulky for the interior. The apparatus may also be used for landing ships' mails on difficult coasts.

I will now proceed to describe the same by the aid of the annexed drawings, in which Figure 1 represents an elevation of the apparatus; Fig. 2, a plan; Fig. 3, a horizontal section on the line A B; Fig. 4, a vertical section on the line C D; Fig. 5, enlarged detail of the head of the bell; Fig. 6, a vertical section of a buoy constructed upon a double-cased or cellular principle; Fig. 7, a horizontal section of the same; Fig. 8, enlarged detail of the head of the bell as shown in Fig. 6.

Referring to the drawings, *a* is the outer shell of the buoy, which I prefer to make of a balloon or pear shape and of copper or other metal.

b is a top or crown plate, removable by taking out the screws *c*; or the crown-plate may screw into its seating upon suitable packing. Removing this crown-plate, access to the interior is gained.

d is a trap-door hung in a light strong frame across the buoy and fitted with a safety-lock. This door extends as a diaphragm across the waist of the buoy and forms the lower part, *e*, into a strong closet for the reception of mails, specie, jewelry, papers, or other valuables, which, being inclosed by the frame and door, are prevented from being shifted by the action of the waves so that they cannot be thrown into the upper part or air-chamber of the buoy.

The part *e'*, which is separated by a similar diaphragm and door, forms a second chamber.

The necessary ballast may be provided by thickening the metal of the bottom plates to any required extent.

Upon the body of the buoy is hung a bell, *f*, pivoted to rock in one direction, and on a rocking beam, *g*, pivoted to swing in the other direction. The beam *g* is hung in brackets or eyes upon cross-bars on standards *h*, secured to the body of the buoy. This bell is to act as a sound-signal. The clapper *i* of the bell is suspended by a ball-and-socket joint, *j*, (shown enlarged in Fig. 5,) or any other description of universal joint may be used, the object being to cause the clapper to strike by any wave motion of the buoy or wind action upon the ball *k*, which is attached to the standards *h*, and this ball may be nickel-plated or otherwise rendered reflective of light to operate as a sight-signal; and further to assist this the buoy can be coated with luminous paint.

A band, *m*, is formed round the buoy at or about the line of flotation, and to this band are connected rings, loops, or life-belts *n* for the assistance of drowning persons or for the suspension of bulky articles.

Figs. 6 and 7 represent sections of a buoy of similar form, but constructed upon the double-cased or cellular principle. The outer casing consists of a series of water-tight compartments, *o*, and the crown-plate *p* is also cellular and fits into the opening in the crown between packings of water-proof material, the screws *s* firmly securing it in place.

Fig. 8 shows a mode of hanging the bell without independent rocking motion; but it is attached to a block, *u*, in which is a socket to receive the ball *v*, forming the joint of the clapper, or a short rod or other connection may be attached to the top of the ball *v* and to the signal-ball, by which connection the signal-ball may by wind action be made to assist the clapper in striking the bell.

Either of the modes described of arranging the signals may be applied to either form of buoy. The signal-standards and clapper-rod may be tubular, to combine lightness with strength, and in the double-cased form of buoy a packing of cork may be employed between the two casings. The signal-ball may be fur-

nished with a light similar to a diver's lamp, or an electric light may be employed by constructing a reservoir for storing electricity within or upon the buoy, and the buoy being
5 coated with luminous paint, as before stated, the whole object would thus be conspicuous at night. To form a flotilla two or more of these buoys may be connected by links or
10 chains. Mails can also be landed by means of these buoys and floated from ship to shore upon coasts which are otherwise difficult to approach.

I claim—

The apparatus for saving life and property

at sea, consisting of the receptacle *a*, having 15 the removable section *b*, the compartments *c*, formed by the horizontal partitions *d*, provided with doors, combined with the standards *h*, secured to the receptacle *a*, crossing each other at their upper ends and having a 20 rocking bar, *g*, and the bell *f*, hung upon said bar and provided with a clapper, *i*, suspended therein by a ball-and-socket joint, *j*, substantially as described.

AUGUSTUS DANIEL ROTH.

Witnesses:

EDWARD JOHN PAYNE,
HENRY F. TALBOT.