

(No Model.)

2 Sheets—Sheet 1.

J. B. ANDERSON.
MARINE SAFE FLOAT.

No. 578,308.

Patented Mar. 9, 1897.

Fig. 1

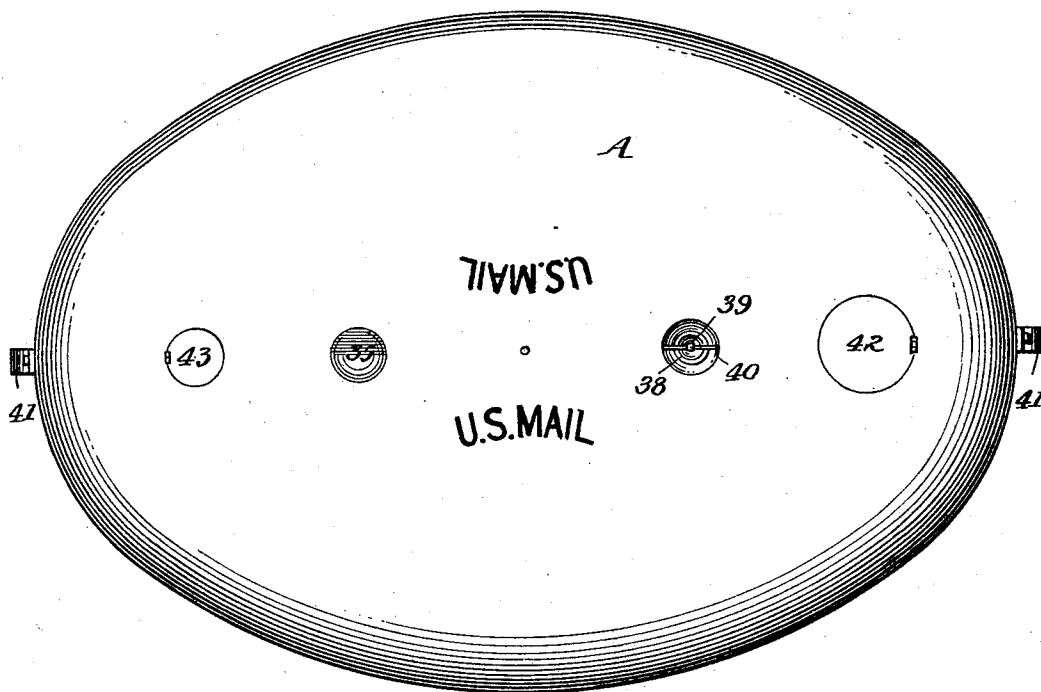
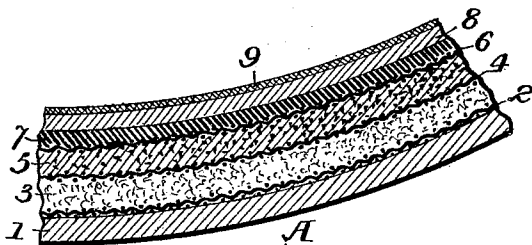


Fig. 4.



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Fig. 2

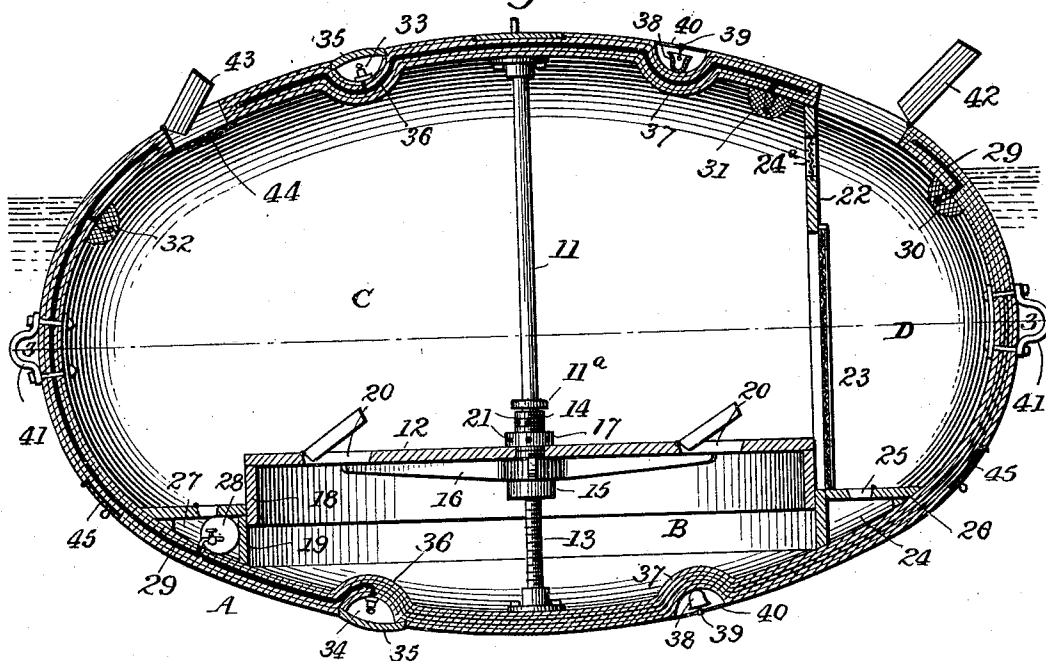
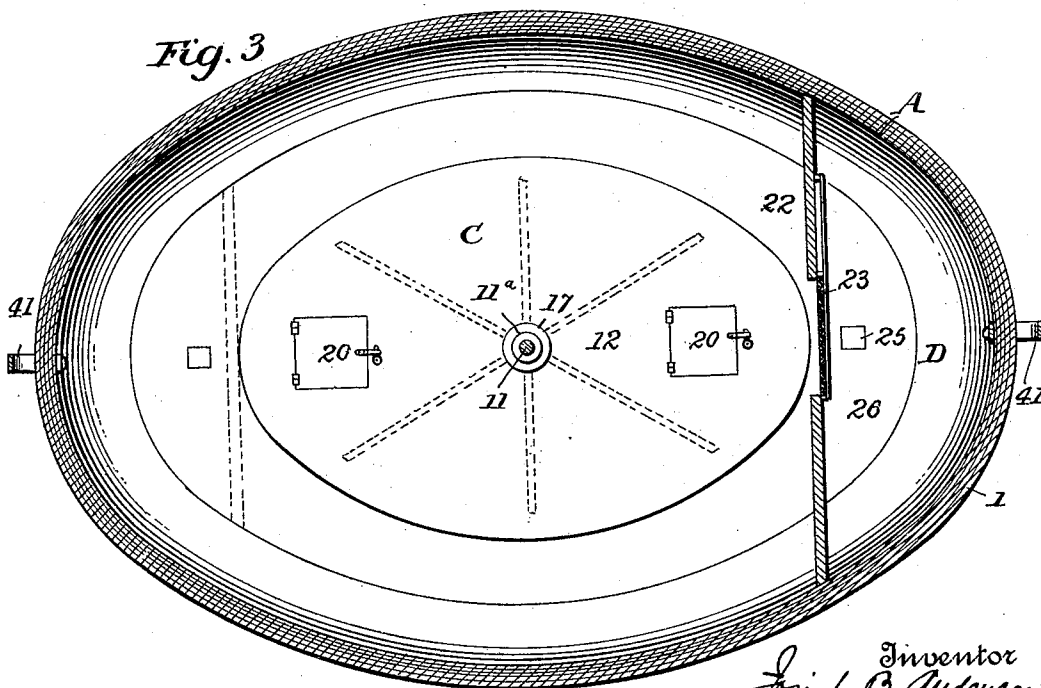


Fig. 3



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UNITED STATES PATENT OFFICE.

JOSIAH B. ANDERSON, OF BOSTON, MASSACHUSETTS.

MARINE SAFE-FLOAT.

SPECIFICATION forming part of Letters Patent No. 578,308, dated March 9, 1897.

Application filed June 24, 1896. Serial No. 596,780. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH B. ANDERSON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Marine Safe-Floats, of which the following is a specification.

This invention relates to an improved marine safe-float especially designed for the preservation of mail, precious metals, and other valuables in case of accident to the vessel in which they are conveyed.

It is well known that many vessels carrying mail and precious freight have been burned at sea or have foundered in deep water, and in many cases the mail, money, or other valuables which they carried have been irretrievably lost.

It is the object of my invention to provide a safe of great strength which is fire and burglar proof, sufficiently buoyant to float above water, and which has sufficient storage capacity for the largest amount of mail and valuable matter, such as gold and silver, usually carried on vessels for export and import.

My improved safe is so constructed upon scientific principles that it will float with about twenty-five per cent. of its bulk above the water-line with an average load.

My invention also consists in providing a suitable compartment in the safe or float wherein coin, bullion, and other very valuable freight may be securely locked, and other compartments for mail which is stored in port and mail received as the vessel leaves port, to be assorted and stored at sea.

The invention will be more particularly described in connection with the accompanying drawings, in which—

Figure 1 is a plan of my improved marine safe-float. Fig. 2 is a longitudinal sectional view through the center of the safe. Fig. 3 is a sectional view on the line 3 3 of Fig. 2, showing the interior arrangement in plan; and Fig. 4 is an enlarged section of a part of the casing, showing the materials of which the casing is composed.

Referring to the drawings, A indicates the wall or casing of the safe, which is made up throughout of a laminated structure, such as that shown in Fig. 4. As therein illustrated, 1 indicates the outer shell of the casing, which

is composed of an armor-plate, of steel, iron, or other suitable metal, of sufficient thickness to withstand the force of the waves and prevent the safe from being pierced by pieces of wreckage in case of accident. Next to armor-plate 1 is a layer of asbestos 3 or other equivalent fireproof material inclosed between strong layers 2 and 4 of malleable wire fabric of coarse mesh. The next layer is composed of cork included between the wire fabric 4 and a second wire fabric 6 of a somewhat smaller mesh. Between the layer of wire fabric 6 and a plate 8, of steel, iron, or other suitable metal of perhaps one-half inch in thickness, is a layer of asphaltum 7. The plate 8 forms the inner wall of the casing or safe, and I preferably cover this with a cloth covering 9, well cemented to the plate 8. The armor-plate 1 gives to the safe its principal strength and rigidity. The asbestos is a non-conductor and serves to prevent heat from injuring the inner wall of the safe and its contents in case of fire. The cork is also a non-conductor of heat, but its principal use is to prevent dampness from penetrating the safe. The asphaltum is also used for this purpose. The wire fabric serves to hold the asphaltum, cork, and asbestos in place and also to strengthen the general structure.

The general shape of the safe is preferably that of an ellipsoid, as shown in the drawings. In the line of the least diameter is a brace or post 11, consisting of a round steel rod which answers the double purpose of strengthening the safe and supporting the adjustable floor or partition between the mail and bullion compartments. Upon this rod 11 is suspended the adjustable floor 12 in the following manner: The rod is screw-threaded at 13, and upon it is a threaded sleeve having a head 15, which supports a spider 16 under the floor. Upon the sleeve above the floor is a locking-nut 17. In order to adjust the floor, the nut 17 is first loosened and the sleeve 14 is then raised or lowered until the floor is at the desired height. The locking-nut is then turned down tight upon the floor. The floor itself, being elliptical, cannot turn. Upon the outer edge of the floor is a depending flange 18, which fits within a wall or flange 19, rigidly attached to the outer casing. Access to the bullion-chamber B, be-

neath the floor 12, is had through manholes 20, which can be securely closed, locked, and sealed. The sleeve 14 and nut 17 are turned by means of a lever which can be inserted in holes 21. An annular collar or shoulder 11^a is rigidly attached to or integral with the post 11 and in such position as to prevent the floor from being raised sufficiently to expose the valuables beneath it.

At one end of the safe I provide a partition 22, fitted with a sliding door 23, preferably of heavy wire-netting or grillework, and a ventilating-opening 24, also protected by iron rods.

The larger mail-compartment C is preferably used for mail which is stored while the vessel is in port. Before the time for leaving, the bullion and other valuables are stored in the chamber B and securely locked and sealed therein. Then the mail is stored in the chamber C and the door 23 closed. The door 23 thus incloses the mail and gives additional security to the bullion-chamber. Late mail and other articles of value which are not received until the last moment can be placed in the outer compartment D, either before or after the mail is assorted.

The space outside of the wall or flange 19 can be divided into lockers for various purposes or utilized as part of the mail-compartment C. Thus, as shown in Fig. 1, there is a locker 24 for small tools, &c., which is accessible through a hand-hole 25 in the cover 26. At the opposite end of the safe there is a compartment 27, which is used for holding a supply of compressed gas or stored electricity. As shown, there is a tank 28 for gas, which is conveyed to any part of the safe through a system of pipes 29, embedded in the layer of asphaltum. There are three interior gas-burners 30, 31, and 32 and two exterior gas-burners 33 and 34. The exterior burners are covered by fixed heavy perforated flint-glass plates 35, one half of each plate being red and the other half white, so as to produce both red and white lights, the red light being preferable in a fog and the white light in darkness. These lights 33 and 34 are intended to burn constantly while the ship is at sea, so that in case of sudden accident they will not require any lighting or other preparation. One of the lights is placed at the top of the float and the other at the bottom, so that no matter which side is up the float will show a red and a white signal-light. The lights 33 and 34 are placed in depressions 36 in the outer casing. In other depressions 37 I place bells 38, the bells being preferably stationary and provided with clappers 39, which are pivoted on stationary rods 40. One of the bells is placed at the bottom of the float and one at the top, so that one of them will always be in a position to sound an alarm and attract attention when the safe is floating on the waves.

Upon the ends of the safe I place stout iron loops or eyebolts 41, to which a rope or

chain can be attached either to tow the safe into port or to raise it onto the deck of a vessel. A door 42 is provided for giving access to the interior of the safe. This door opens into the outer compartment D. I provide a second door 43 in the chamber C, through which air is furnished to the workmen while the mails are being stored in the safe. The opening in which the door 43 fits is covered on its inner side by a stout iron grating 44. It will thus be seen that there is no means of access to the interior of the safe excepting through the main door 42. Both doors 42 and 43 are provided with secure locks, such as are used on burglar-proof safes, and they are also fitted water-tight.

The safe is intended to rest in a suitable cradle or depression, in the deck of a vessel, so that it can readily float free from the vessel in case the latter should founder. It is intended to float about twenty-five per cent. above the surface of the water when loaded. Upon the outer surface of the safe I preferably provide two compartments or pockets 45, into which personal mail can be quickly inserted in case the vessel is in imminent danger of sinking, the receptacles 45 being provided with water-tight covers. The outer surface of the safe may be suitably marked with the words "United States Mail" and the name of the vessel upon which the safe is carried. It may also be provided with a suitable flag to form a day-signal to attract the notice of passing vessels.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a marine safe-float, the shell consisting of the outer metal armor-plate, the inner metal plate, and the intermediate layers of asbestos, cork and asphaltum, substantially as described.

2. In a marine safe-float, the shell consisting of the outer armor-plate of metal, the inner layer of metal, intermediate layers of asbestos, cork, and asphaltum, and wire fabric arranged between said intermediate layers, substantially as described.

3. In a marine safe-float, the ellipsoidal shell in combination with the vertical central post extending across within the shell, said post being rigidly connected at top and bottom with the shell, substantially as described.

4. In a marine safe-float, the combination with the shell and the central stationary post, of the vertically-adjustable floor arranged to separate the mail and bullion compartments, said floor being supported by the post, substantially as described.

5. In a marine safe-float, the combination with the casing and the central threaded post, of the internally-threaded sleeve upon the post, the floor supported by said sleeve, and the locking-nut threaded upon the sleeve, substantially as described.

6. In a marine safe-float, the combination with the shell, the stationary post, and the

wall 19, of the floor 12 adjustable on the post and the depending flange 18 attached to the floor, substantially as described.

5 7. In a marine safe-float, the combination with the shell, of the vertical partition separating the compartments C and D, and the vertically-adjustable floor separating the compartments C and B, the compartment B being expansible to provide more or less storage

room, as desired, for coin, bullion, and other valuables, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSIAH B. ANDERSON.

Witnesses:

JAMES A. WATSON;
JOS. H. BLACKWOOD.