

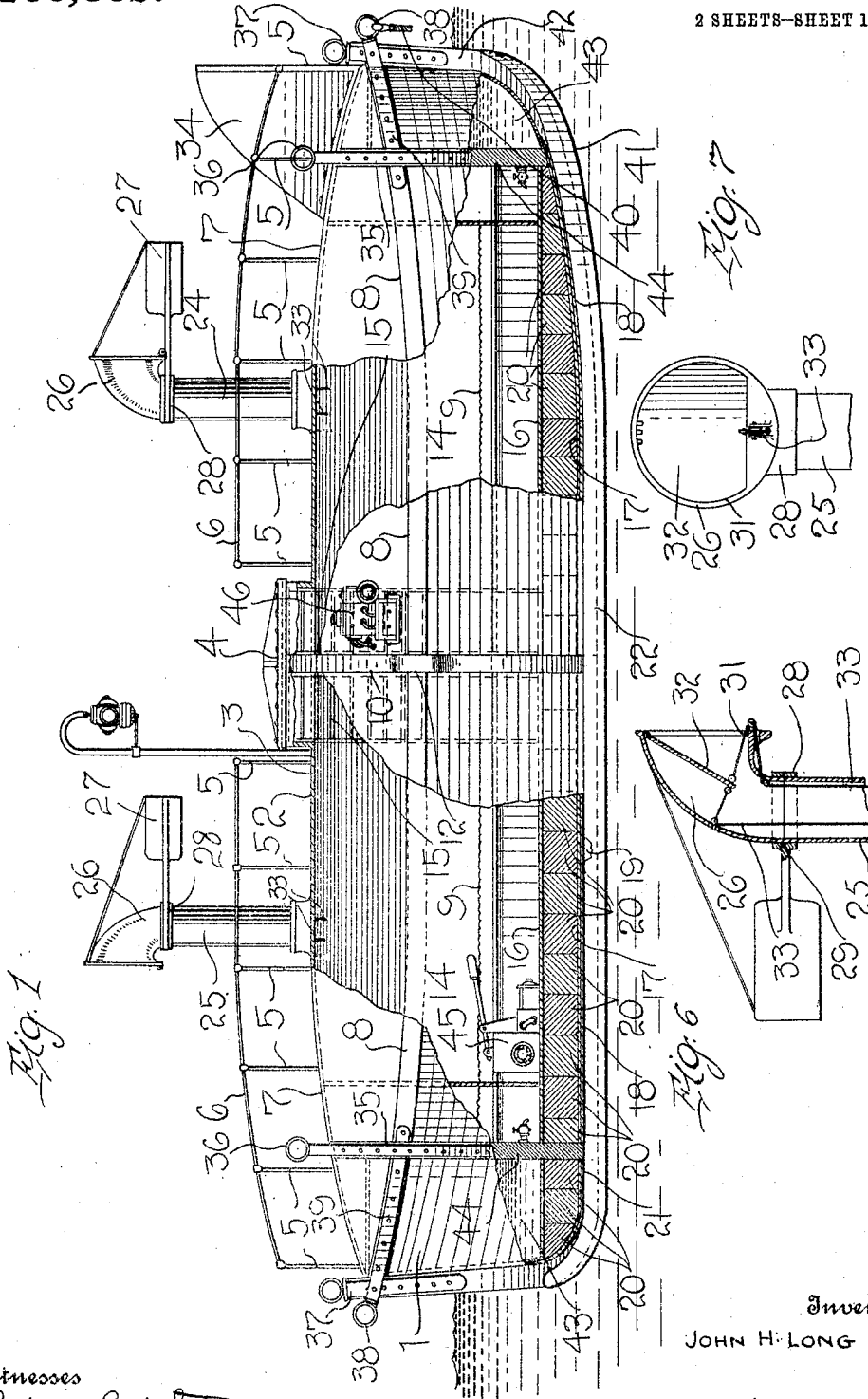
J. H. LONG.
LIFE BOAT.

APPLICATION FILED DEC. 22, 1913.

1,100,835.

Patented June 23, 1914.

2 SHEETS-SHEET 1.



Witnesses
Robert M. Sutphen.
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By *Watson & Coleman*
Attorney

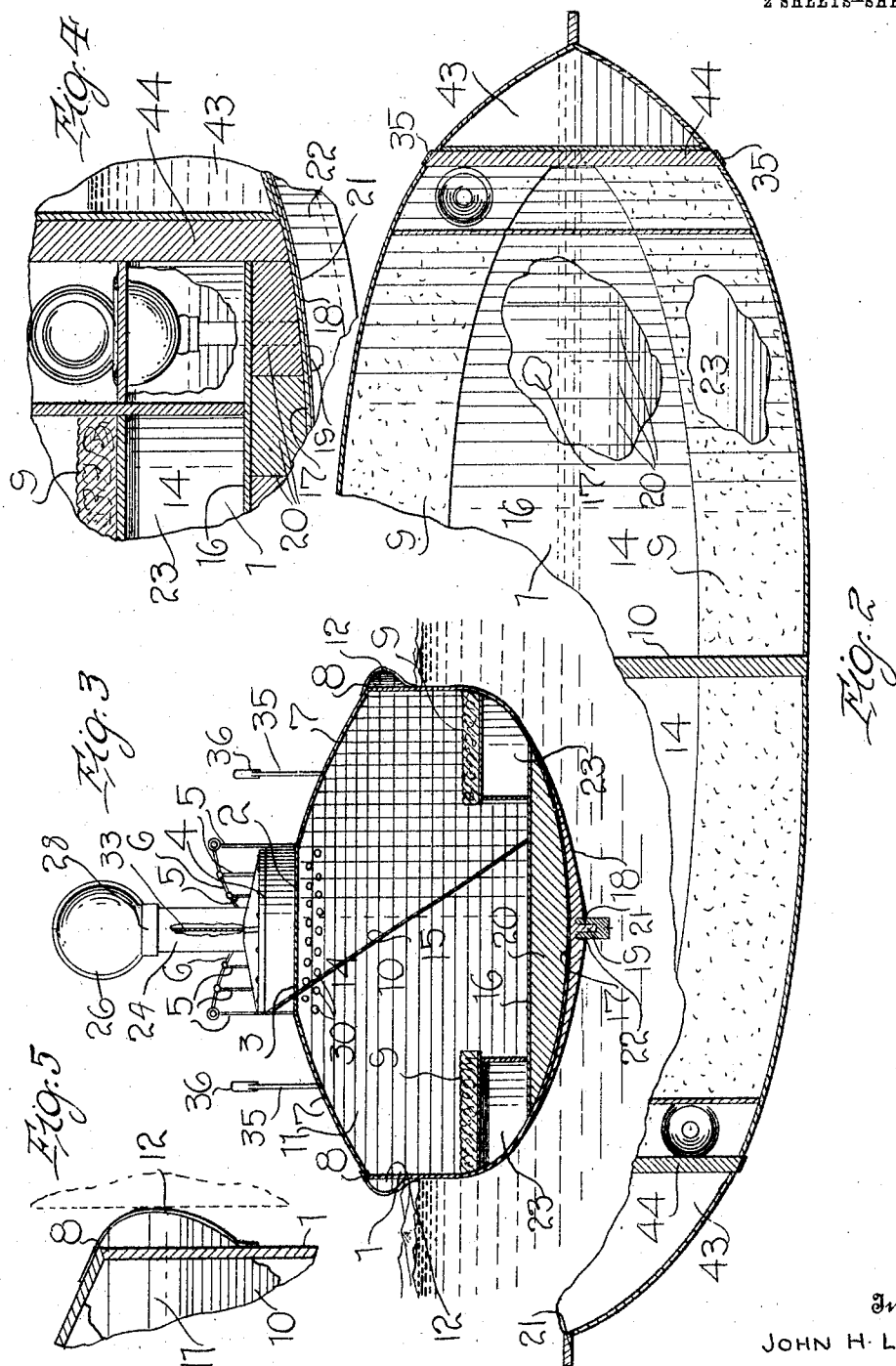
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UNITED STATES PATENT OFFICE.

JOHN H. LONG, OF DAGSBORO, DELAWARE, ASSIGNOR OF ONE-HALF TO RUFUS D. LINGO, OF DAGSBORO, DELAWARE.

LIFE-BOAT.

1,100,835.

Specification of Letters Patent.

Patented June 23, 1914.

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To all whom it may concern:

Be it known that I, JOHN H. LONG, a citizen of the United States, residing at Dagsboro, in the county of Sussex and State of Delaware, have invented certain new and useful Improvements in Life-Boats, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in life boats and has relation more particularly to a device of this general character of an inclosed type; and an object of the invention is to provide a device of this general character of a novel and improved construction whereby the requisite buoyancy may be afforded to maintain the life boat against sinking and whereby proper ballast is afforded to maintain the craft against undue tossing and lateral displacement.

The invention also has for an object to provide a device of this general character wherein the hold or compartment is divided into a plurality of chambers whereby segregation of the sexes may be had when the occasion so requires, such dividing means serving to reinforce the boat structure and serving to prevent demolition of the same, particularly by collision.

It is also an object of the invention to provide a device of this general character having novel and improved means whereby the same may be properly ventilated under normal conditions and whereby the ingress of water through such ventilating means may be prevented under abnormal conditions.

Furthermore, the invention has for an object to provide a device of this general character having novel and improved means whereby the life boat, especially when of a drifting type, may be caused to travel head-on, whereby the possibility of capsizing of the boat by the action of the wind is substantially entirely obviated.

The invention, furthermore, has for its object to provide a device of this general character having novel and improved means whereby the same may be lowered into the water from a ship's deck with certainty and convenience, and whereby a plurality of the life boats may be so coupled or connected as to be disposed in a line whereby the safety of each of the crafts is greatly enhanced.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my im-

proved life boat, whereby certain important advantages are attained and the device is rendered simpler, less expensive and otherwise more convenient and advantageous for use, all as will be hereinafter more fully set forth.

The novel features of the invention will be carefully defined in the appended claim.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein—

Figure 1 is a view partly in elevation and partly in section of a life boat constructed in accordance with an embodiment of my invention; Fig. 2 is a fragmentary view taken through Fig. 1, at a point below the gunwale; Fig. 3 is a transverse vertical section taken through Fig. 1; Fig. 4 is a fragmentary view, on an enlarged scale, illustrating certain features of my invention, as herein embodied; Fig. 5 is a fragmentary sectional view illustrating a projected portion of the central bulk head whereby a buffer is afforded; Fig. 6 is an enlarged fragmentary sectional view taken through a funnel as herein embodied; and Fig. 7 is a view in elevation of Fig. 6.

As disclosed in the accompanying drawings, I illustrate a life boat of a drifting type constructed in accordance with an embodiment of my invention but I wish to be particularly understood as not limiting myself in this respect, as a suitable motor and its concomitant parts may be applied when it is desired that the life boat be of a power driven type.

As herein set forth, 1 denotes the body of a boat and 2 the deck, the deck 2 is herein shown as comprising a longitudinally directed straight top 3 disposed substantially at the center thereof to afford a passage-way or walk leading to the hatch-way 4, such hatch-way being preferably positioned, as herein disclosed, substantially central of the deck, such walk or passage-way to bow and stern being suitably guarded by the stanchions 5 and the coacting guard rails 6, as is believed to be clearly apparent to those skilled in the art to which my present invention appertains. The portions 7 of the deck to the opposite sides of the center walk 3, as herein disclosed, have a gradual downward curvature slope to the gunwale 8, thus assuring an easy and quick clearance of any water that may gain the deck in heavy seas

and also serving to provide additional head space under the deck over the seat lines 9 within the body 1.

In order to give additional strength to the body 1 and especially to serve as a means to prevent demolition thereof, especially by collision, I dispose transversely of the body 1 at the longitudinal center thereof and below the hatch-way 4, the stationary bulk head 10, certain of the transverse beams 11 of the bulk head projecting exteriorly of the body 1, as indicated at 12, at opposite sides thereof and adapted to serve as buffers whereby injury to the body is prevented should such boats, upon being launched, be caused to contact with the side of the ship, such projected portions 12 being extended beyond the outermost lines of the body. The bulk head 10 also serves to divide the body into two compartments or chambers 14—14, whereby it will be readily perceived that when the occasion may require the occupants may be readily and conveniently segregated as to sex, and in order that proper entry may be had within each of the compartments I have extending from the hatch-way 4 the companion-ways or stairs 15 leading into each of such compartments.

The floor 16 of the compartments 14, as herein disclosed, is suitably spaced from or positioned above the bottom of the boat in order to position therebelow the ballast floor 17 supported, as herein set forth, by the boat bottom 18 and the keelson 19, such ballast floor 17 permitting the use of requisite stationary ballast weights 20 adapted to overcome any top-heaviness of the craft or undue sway and roll that might occur owing to the activities of the occupants of the craft. In addition to the ballast weights 20, the keel 21 may have secured along the under surface thereof a suitable weighted member 22, as is believed to be clearly apparent to those familiar with devices of the character at issue. As herein set forth, the seat lines 9 are disposed at the sides of the compartments 14 and disposed preferably longitudinally thereof, the space beneath the seats proper serving, as indicated at 23, as lockers in which may be stored provisions or other necessities, as the occasion may require.

In order to afford, under normal conditions, the requisite ventilation within the body 1, I position fore and aft of the deck 2, at substantially the transverse center thereof, the upwardly directed funnels 24 and 25, the fore funnel 24 serving to afford ingress of fresh air, while the aft funnel 25 serves to permit the egress of the vitiated air. Each of the funnels 24 and 25 is provided with the rotatably supported bell 26 of conventional type, the movement of which being under control of the fan tail 27, suitably carried by such bell and operable in a manner which is believed to be self-evident.

I also find it of advantage to have the operative connection between the bell and its funnel of such a character that the incidental vibrations of the craft will not cause the same to rotate but will readily permit the requisite movement of the bell by the action of the atmosphere so that such bell may be properly directed. I also find it of advantage that such connection 28 between the bell and its funnel include the anti-friction means 29. While it is not thought necessary to illustrate the same, it might be stated that the stationary bulk head 10 may terminate at the gunwale 8 and in which instance the space thereabove will assure the proper circulation of air; but in the preferred form of my invention, as herein illustrated, and wherein the bulk head extends up to and is operatively connected with the deck, I provide in the upper portion of such bulk head a plurality of openings 20, whereby the requisite circulation is permitted.

Should the craft be in a sea of such a character as to cause the same to dip or drop to such an extent as would permit water to enter within the body through the funnels 24 and 25, I find it of advantage to provide means whereby such funnels may be closed during this period and, as herein disclosed, I illustrate a means wherein each of the bells 26 is provided adjacent its outer end with an annular valve seat 31, with which is adapted to coact the swinging valve or trap 32, the movements of such valve or trap 32 being under control of the suitably directed flexible members 33 depending through the co-acting funnel and terminating within the hold whereby either of such connections may be readily and conveniently grasped by an occupant of the boat and so manipulated as to adjust the valve or trap 32 into either an open or closed position, as the occasion may require.

To assure the boat, especially when of the drifting type as herein illustrated, traveling head-on in the wind, I find it of particular advantage to position on the stern deck the vertically disposed spanker fan tail 34, which will effectively serve in whipping the craft in the proper direction and whereby it will be readily perceived that the possibility of capsizing the craft by the action of the elements, especially the wind, is reduced to a minimum.

In order to afford a means whereby the craft may be lowered from the deck of a ship with safety after the passengers have entered therein, I position adjacent the bow and stern the vertically disposed davit-bolts 35 secured to the keel 21 and projecting above the deck 2, the projected portion of each of such davit-bolts 35 being formed into an eyelet 36 affording a connection with the requisite tackle carried by the davits of the ship, such davit-bolts 35 pos-

sessing sufficient tensile strength to swing the combined weight of the boat when loaded for launching. I also find it of advantage to provide adjacent the bow and

5 stern of the boat the additional vertically disposed eye-bolts 37 to provide a convenient engagement of guide loops, if used, or for use in case double tackle can be used in launching. I also provide the boat at the
10 bow and stern with the substantially horizontally directed eye 38 secured to the sides of the boat, and preferably at the gunwale 8, by the elongated metallic straps 39, such eyelets being adapted to afford a convenient
15 means whereby a hawser 40 of requisite length may be connected, such connection being preferably obtained through the medium of the well known S hook generally employed in marine work. The use of the
20 hawser 40 is to permit the boat or craft to drift a predetermined distance away from the ship until a second boat or craft has been launched, the opposite extremity of such hawser being connected with the bow-
25 eye of the second craft so that when the second craft is launched two boats will be connected and so on with the succeeding boats that may be launched, whereby it will be seen that the several boats will be dis-
30 posed in string which is of particular advantage as the resultant trailing weight serves as an additional means to maintain the boats head-on to the wind. A further advantage, as is believed to be obvious, in
35 having the boats connected is that a promiscuous scattering of the various crafts is prevented which makes the rescue work the more difficult, as it will be readily perceived that with the boats in connected relation
40 they are maintained within a given area so that upon a rescue ship reaching the vicinity all of the boats may be accounted for. There may be conditions, however, whereby it will be necessary that the crafts be disconnected.
45 This is readily afforded through the various S hooks, hereinbefore referred to. I also find it of particular advantage to have the keel 21 substantially straight to midships and thence disposed on an oval rise, as indicated at 41, to the stern post 42, which serves
50 as an ease in keeping the boat head-on to the wind in drifting.

Stationed in each of the compartments 14 is a water tank 43 partitioned off by a stationary bulk head 44, which bulk head serves to give added strength and stability to the walls of the body of the boat, and thus serves to prevent demolition thereof, such tanks being adapted to contain water for drinking
60 purposes. I also find it of advantage to install within the body a bilge pump 45 to be used should the boat, from any cause, create a leak; and I also find it of advantage to

provide preferably in the bulk head 10 and above the water line an operable pump 46, 65 for purposes which are believed to be self-evident.

It is to be understood that it is my purpose to equip the compartments 14—14 and the boat proper with all possible conven- 70 iences, as the use of a boat of this character may require but in view of the variety of devices with which the craft may be equipped and as these devices in themselves form no part of my invention, a detailed de- 75 scription and illustration thereof is believed to be unnecessary.

From the foregoing description, it is thought to be obvious that a life boat constructed in accordance with my invention is 80 of an extremely simple and comparatively inexpensive nature and is particularly well adapted for use by reason of the effectiveness with which the passengers committed to the same are safe-guarded and it will also be 85 obvious that my invention is susceptible of some change and modification without material departure from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself 90 to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice.

Having thus fully described my invention what I desire to claim and secure by Letters 95 Patent, is:

A device of the character described including an inclosed body provided with an entrance, bulk heads disposed transversely of the body to divide the same into a plurality 100 of compartments and to reinforce said body, funnels projecting upwardly from the body and in communication with certain of the compartments, the bulk head interposed between the compartments with which the 105 funnels are in communication being provided with means whereby circulation may be created through the funnels and said compartments, bells in swiveled engagement with the outer extremities of the funnels, a 110 trap pivotally supported within each of the bells for controlling the draft through the funnels, and flexible members operatively engaged with the opposite sides of the free end of the trap and directed through the 115 funnel into a compartment for operating said trap, said bell being provided with guiding means for the flexible members, whereby the requisite manipulation of the trap is afforded. 120

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

JOHN H. LONG.

Witnesses:

J. E. EVANS,

GEORGE A. FURMAN.