

H. THURSTON.
LIFE SAVING DEVICE.
APPLICATION FILED MAY 3, 1912.

Patented Jan. 28, 1913.
2 SHEETS—SHEET 1.

1,051,649.

Fig. 1.

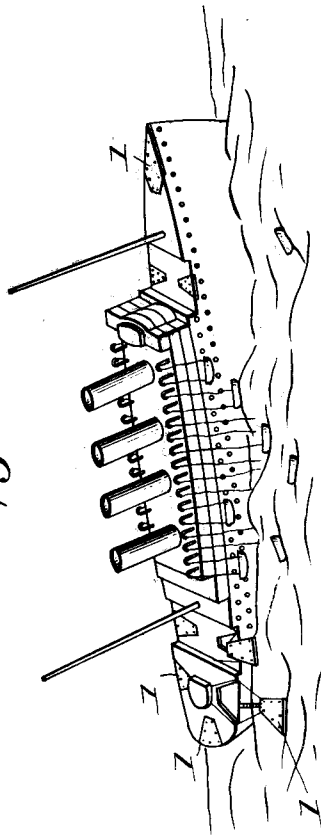
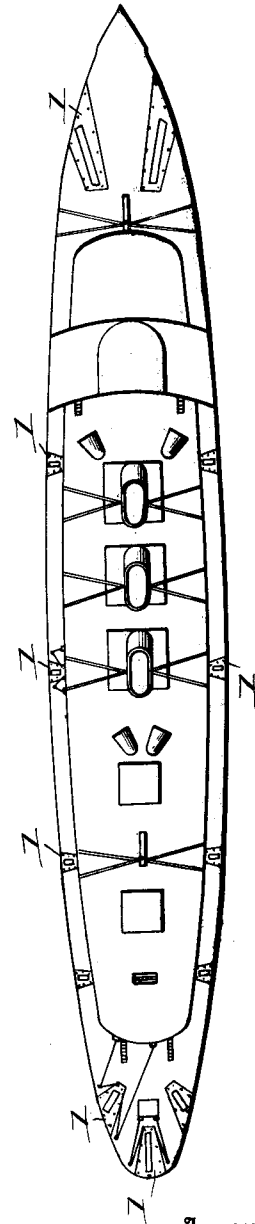


Fig. 2.



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2 SHEETS—SHEET 2.

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Fig. 3.

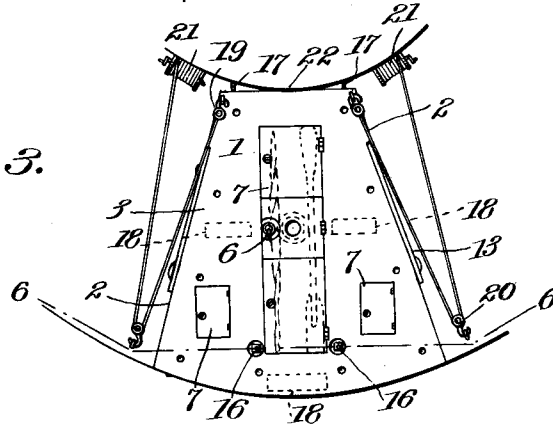


Fig. 4.

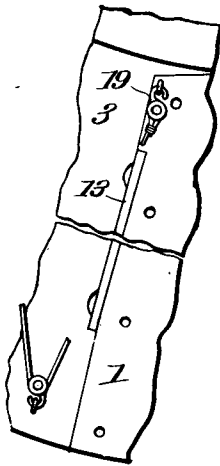


Fig. 6.

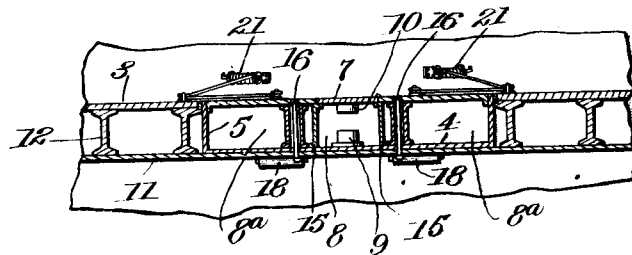


Fig. 5.

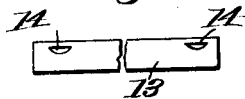
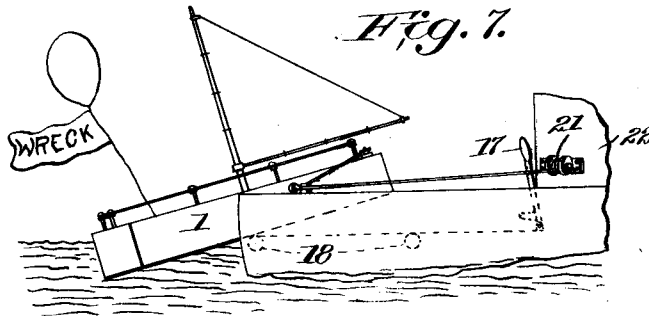


Fig. 7.



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LIFE-SAVING DEVICE.

1,051,649.

Specification of Letters Patent.

Patented Jan. 28, 1913.

Application filed May 3, 1912. Serial No. 694,897.

To all whom it may concern:

Be it known that I, HOWARD THURSTON, magician, a citizen of the United States, residing at Coscob, in the county of Fairfield and State of Connecticut, have invented new and useful Improvements in Life-Saving Devices, of which the following is a specification.

This invention relates to improvements in life saving devices, and more particularly to a ship construction whereby a portion of the deck of the ship may be displaced to provide a life raft.

It is the object of this invention to construct the deck or decks of a ship in such a manner that large portions may be readily detached and launched overboard in case of accidents where the ship is sinking or in danger of sinking and these sections are so constructed as to be able to support a large number of persons.

The detachable sections of the deck which form the raft may be placed wherever available deck space is found and so constructed as to lie flush with the deck proper and when not in use to form an unobstructed deck of the ship. The size of the raft depends upon the deck space available in different forms of ships. The displacement of the whole after deck or whole forward deck capable of supporting hundreds of people is contemplated in this invention where the ship construction will allow. To apply this invention to ships no change in the hull construction is necessary as most ships nowadays have iron or steel deck plates with a deck of wood laid thereover and it is only necessary to raise the wooden deck proper a sufficient distance above the deck plates to allow of the detachable raft section and bring the deck proper flush with the deck or upper portion of the raft.

In the large passenger ships of today there is hardly enough room on account of their structure to stow a sufficient number of life boats to accommodate a maximum number of passengers and crew, and this invention contemplates the use of detachable deck section rafts as an additional life saving means to the regular number of life boats required to be carried by passenger vessels.

While the preferred forms of this invention are illustrated upon the accompanying sheets of the drawings, yet it is to be understood that minor detail changes

may be made without departing from the scope thereof.

Figure 1 is a view in perspective illustrating a large passenger steamer sinking by the stern with a list to starboard in which the life boats are being put over the side and also in which one of the deck section rafts as contemplated in this invention has been launched and another is in the process of being launched. Fig. 2 is a top plan view of a steamer having a different deck plan illustrating the different points in which the detachable deck raft of this invention can be placed. Fig. 3 is a top plan view illustrating in large detail one of the detachable deck section rafts. Fig. 4 is a top plan view of an enlarged detail illustrating one form of securing means for the detachable deck raft, with parts broken away. Fig. 5 is an enlarged view in side elevation of a detail of this form of securing means, with parts broken away. Fig. 6 is an enlarged view in section taken on the line 6—6 of Fig. 3. Fig. 7 is an enlarged view in side elevation illustrating the detachable deck raft being launched, showing the life rail, mast and sail in place with a balloon and pennant or flag rising from the raft.

As illustrated in Figs. 1 and 2 the decks of a ship are provided with detachable sections 1 wherever desired. Each detachable section is provided with sides 2 sloping inward toward the center, normally held in close contact with the deck proper 3. Each detachable section 1 is preferably constructed with a bottom 4 and sides 5 of metal or wood, but the deck 6 or top is preferably of the same material as the deck proper 3 of the ship and is flush therewith so that normally the deck 6 of the raft section is to all appearances a portion of the deck proper.

Sufficient space is provided between the bottom 4 and the deck 6 of the raft section to give it buoyancy to float as many people as its deck space can accommodate. The space between the deck 6, bottom 4 and sides 5 is divided into air tight compartments having doors 7 opening therefrom and flush with the deck. An unobstructed longitudinal compartment 8 is preferably provided for storing a mast with sail attached, sufficient oars to propel and steer the raft, and a life rail having stanchions adapted to be erected in steps provided therefor upon the deck 6 about its edges. It is also pref-

erable to provide the bottom of this compartment with a step 9 for the mast and the door directly above with a support 10, the opening of which is normally closed by a plug flush with the deck. The other compartments 8^a afford space for storing food, water, signal rockets, a small balloon, tank of compressed hydrogen gas therefor, and banner displaying the word "Wreck" to be raised by the balloon, lanterns, fog horns, hand pump therefor, first aid appliances for injured or partially drowned people and such other supplies and accessories as may be desired.

The raft section 1 rests upon the deck plate 11 of the usual ship construction and the deck proper 3 is supported a sufficient distance above the deck plates by I-beams 12 or raised in any desired manner to be flush with the deck 6 of the raft. The sides 5 of the raft section sloping inward toward the center allows the raft to be easily launched when once detached. It is preferable to secure the deck section of the raft 1 in place by providing strips of metal 13 inserted between the meeting edges of the deck proper 3 and the longitudinal sides of the raft, which strips engage at the outboard end with the deck proper and at the inboard end with the detachable deck raft 1, as clearly illustrated in Figs. 3 and 4. The strips 13 lie flush with the deck proper and are provided with apertures 14 and the deck above the apertures is slightly cut away, so that a hand, hook or other instrument may be inserted therein, engage in the aperture, and displace the securing bar 13. If desired another securing means may be had by providing bolts 15 extending through the detachable section 1 and the deck plates 11 with the nuts 16 upon the upper ends within recesses in the deck 6 of the deck raft, so that upon the removal of the nuts the bolts will drop through the deck plates and release the deck section. It is preferable to provide a detaching lever 17 at the inboard ends of the detachable deck section 1 pivoted to the deck plates 11 and engaging the inboard end of the section to give the section an initial movement to start the launching of the raft after being detached.

To more easily launch the deck section rollers 18 are mounted upon the deck plates 11, so that after the securing means have been removed and the initial start given the launching over the side may be readily accomplished in any manner. A launching means is shown in Fig. 3, which comprises a block, tackle and windlass on each side of the raft having a hook 19 secured to the inboard end of the raft and a block 20 secured to the rail or deck proper 3 with the fall passing about

the windlass 21 mounted upon the wall of a deck house 22 or some other stationary part of the ship. With this launching apparatus the windlasses are taken up simultaneously until the raft leaves the side and then they are allowed to play out until the raft is freely launched upon the water. The windlasses may then be taken up to bring the raft near enough to pass the passengers to the deck 6 by means of a rope, rope ladders or a canvas chute secured to the deck or other parts of the ship.

What I claim is:

1. A life saving device for ships comprising a life raft mounted upon the deck of the ship with its upper surface flush with the deck proper, means for detachably securing the raft in place comprising a bar lying flush with the deck proper between the side walls of the raft and the top of the deck and engaging the deck at the outboard end and the raft at the inboard end, and means for launching the raft.

2. A life saving device for ships comprising a buoyant detachable deck section having vertical side walls tapering inboard with its top flush with the deck proper, detachable means normally engaging the ship deck and deck section to secure the same in place, and means for launching the deck section from the ship.

3. A life saving device for ships comprising a life raft set in the deck of the ship with the raft deck flush with the ship deck, said raft having vertical side walls tapering inboard, compartments in the raft for storing oars, mast and sail, raft life rail and supplies, steps about the edges of the raft deck for the life rail, steps in the raft for the mast, detachable means engaging the raft and ship for removably securing the raft in place, and means for launching the raft.

4. A life saving device for ships comprising a life raft set in the deck of the ship with the raft deck flush with the ship deck, said raft having vertical side walls tapering inboard, said raft having a deck and bottom provided with air tight compartments therebetween, detachable means engaging the ship and raft to normally hold the raft in place comprising removable bars lying flush with the deck on each side of the raft between the side walls and the top of the deck, each bar engaging the deck at its outboard end and the raft at its inboard end, means to give the raft an initial movement in launching, and means for launching the raft.

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