W. STEWART.

LIFEBOAT OR RAFT.

APPLICATION FILED JAN. 13, 1921.

1,390,935.

Patented Sept. 13, 1921.

2 SHEETS—SHEET 1.

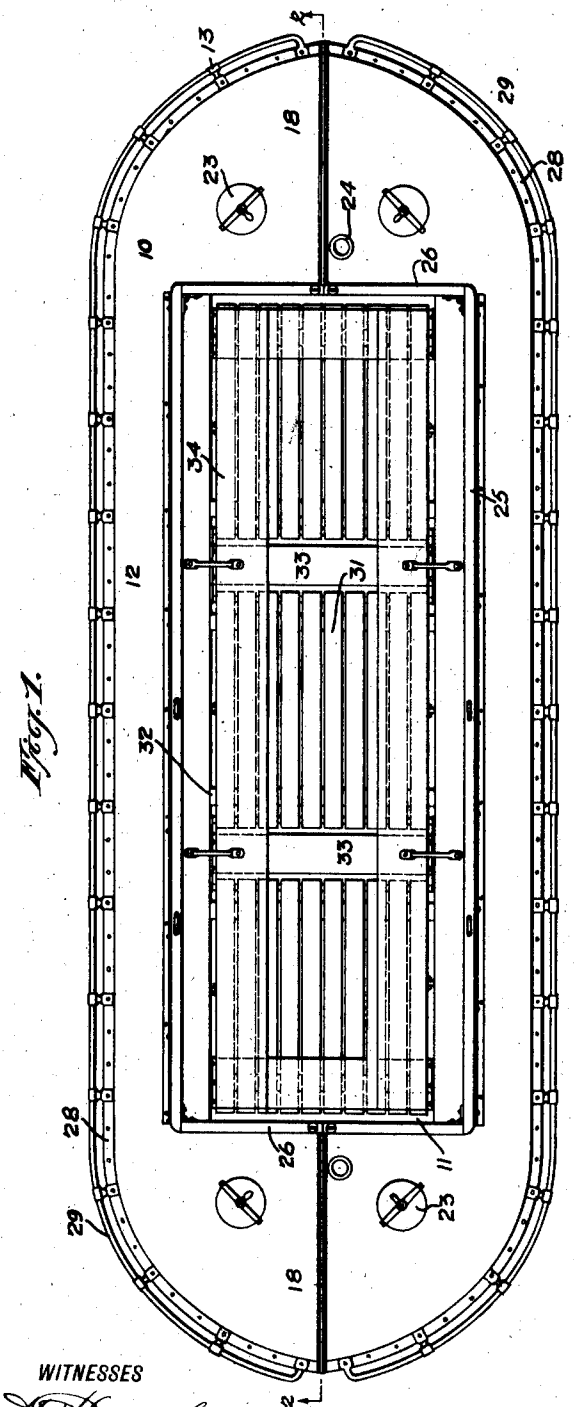


Fig. 1.

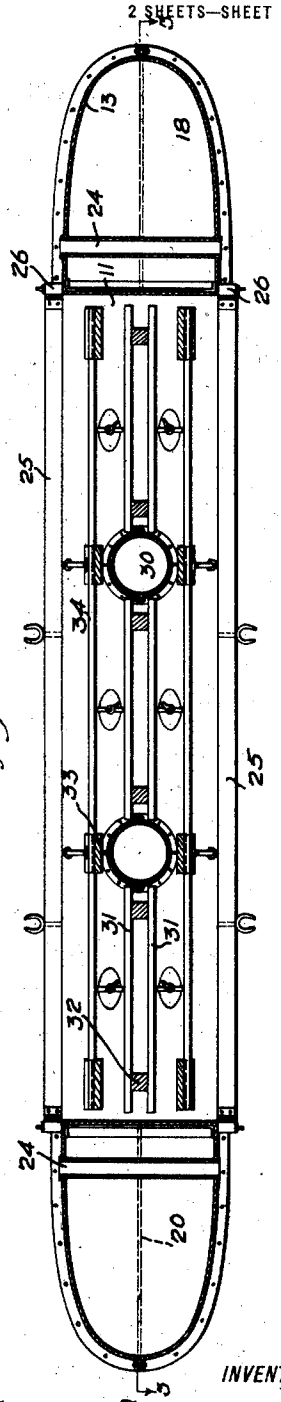


Fig. 2.

WITNESSES

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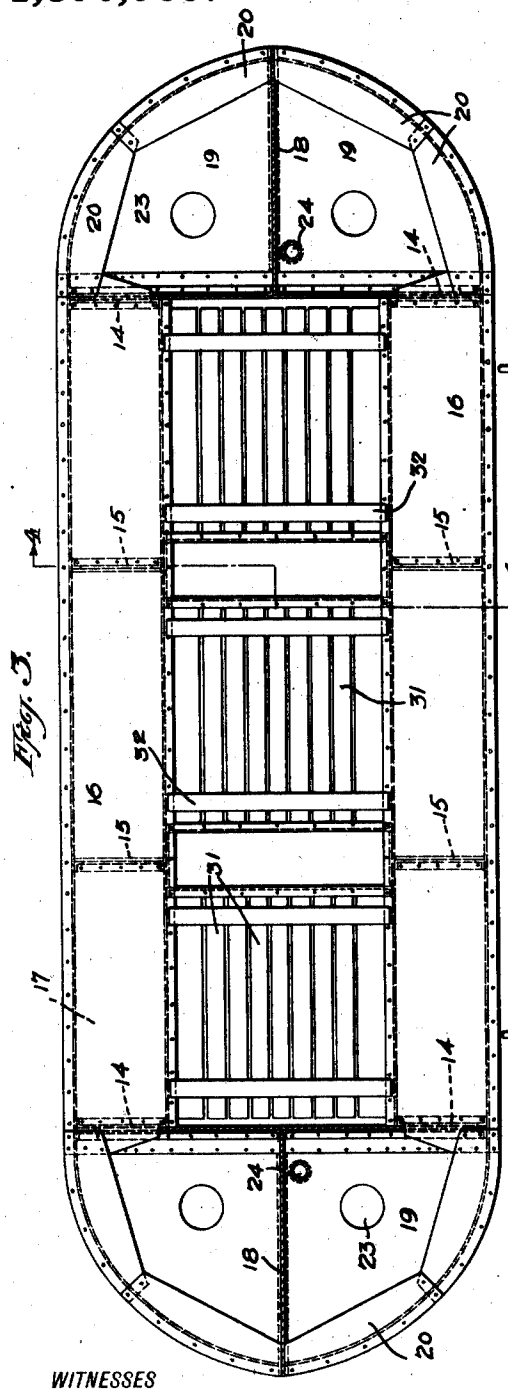


Fig. 3.

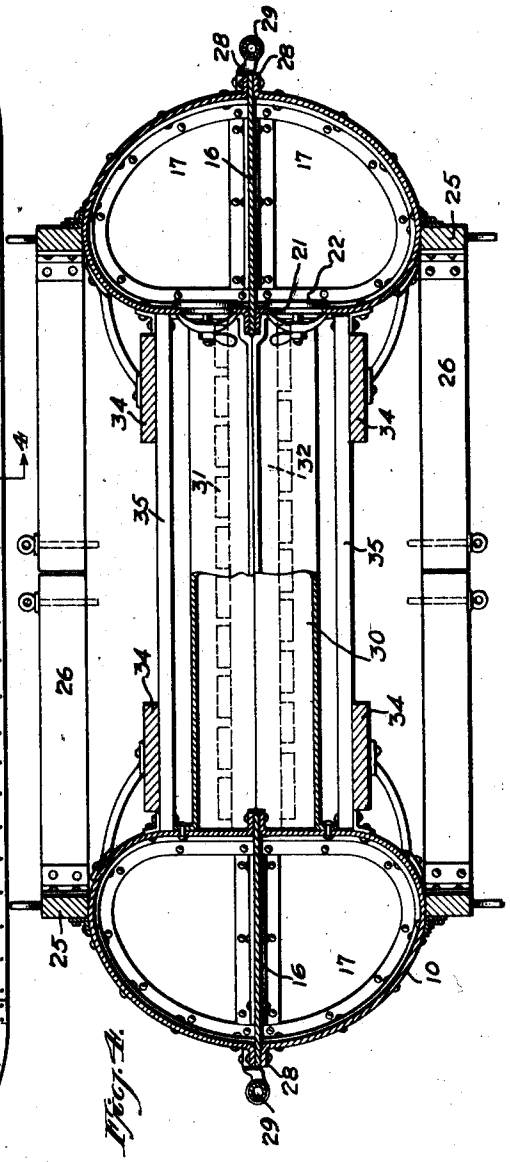


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM STEWART, OF NEWARK, NEW JERSEY.

LIFEBOAT OR RAFT.

1,390,935. Specification of Letters Patent. Patented Sept. 13, 1921.

Application filed January 13, 1921. Serial No. 436,972.

To all whom it may concern:

Be it known that I, WILLIAM STEWART, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Lifeboat or Raft, of which the following is a full, clear, and exact description.

This invention relates to boats and more particularly to an improvement in life boats or rafts.

It is one of the principal objects of the present invention to provide a life boat or raft of identical construction on its upper and lower sides whereby the same will properly function irrespective of its launching thereby eliminating the necessity of employing expensive tackle for lowering the same into the water.

Another object of the invention resides in the provision of a boat of the character described which is provided with a novel floor construction eliminating the necessity of bailing and which functions to prevent the same being drawn down by the suction of a sinking ship.

A further object of the invention resides in the provision of a boat of the character described which includes a plurality of water tight compartments, rendering the same non-sinkable and providing storage space for provisions and water for the passengers and crew.

The invention further contemplates and aims to generally improve and strengthen the structure of a boat of the character described to eliminate the possibility of stoving in of the sides should the same be thrown against the hull of a vessel in a heavy sea.

With the above recited and other objects in view, some of which will appear hereafter, reference is made to the following detailed description, the appended claims and the accompanying drawings forming a part of this application, in which;

Figure 1 is a plan view of a boat or raft constructed in accordance with the invention.

Fig. 2 is a longitudinal sectional view therethrough taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a horizontal sectional view taken approximately on the line 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view taken approximately on the line 4—4 of Fig. 3.

Referring to the drawings by characters of reference, 10 designates a peripheral hollow buoyant hull or body defining a central wall or space 11. Preferably the hull is constructed of a plurality of metallic sections which are riveted or otherwise secured together at their meeting edges to constitute a fabricated structure. The hull includes the relatively narrow side portions 12 and the larger end portions 13 which are separated from the former by the bulkheads 14. The side portions are further sub-divided by the vertical bulkhead 15 and the horizontal stringer plates 16 which are interposed between the confronting edges and secured in place by the rivets or other fastening means employed for securing the sections together. By this arrangement the side portions 12 are sub-divided into a plurality of upper and lower water tight compartments 17—17. The end portions 13 of the body are divided by means of a vertical longitudinally extending bulkhead 18 into independent water tight compartments 19—19. A plurality of stringer plate sections 20 are interposed between the outer confronting edges of the sections constituting the end portions. Each of the compartments 17 are provided with one or more manholes 21 normally closed by water tight covers 22 and each of the compartments 19 is provided with one or more manholes covered by suitable water tight covers 23, whereby access may be had to said compartments for the purpose of filling or removing the contents therefrom. The portions 13 are further provided with vertically disposed sleeves 24 extending therethrough which constitute and may be properly utilized as mast steps. The upper and lower surfaces of the hull are provided with a coaming 25 adjacent the center space or well and the opposite ends of the same are provided with hinged portions 26 which may be swung to an open position when the occasion demands. Preferably the confronting edges of the body sections are provided with flanges 28 and a combination fender and

hand rail 29 is supported therefrom to prevent direct contact of the buoyant body with the hull of the vessel or any other floating article. The fender or rail may further be grasped by persons in the water to assist them in boarding the raft or boat. A plurality of cylindrical water tight braces 30 are arranged transversely within the well and are secured at their opposite ends to the side portions 12 of the hull 10 to strengthen the structure transversely and provide additional water tight compartments for augmenting the buoyancy of the boat. Superposed decks or floors 31 are arranged horizontally at the vertical center of the well or space 11, the same being supported by transverse beams 32, said decks consisting of a plurality of spaced parallel slats supported by the transverse beams 32. The slats of said decks are preferably staggered to dispose the spaces therebetween of the several decks out of alinement whereby to minimize the amount of sea which will be shipped therethrough. Transverse and longitudinal seats 33 and 34 are suitably supported within the well in superposed relation to the decks or floors to provide means for seating the occupants of the raft or boat. Angle iron or any other suitable form of brace are properly riveted or otherwise secured to the elements of the structure for properly strengthening and bracing the same, their disposition being optional with the builder.

By the construction and arrangement of the parts described and illustrated, it will be seen that an exceptionally light and rugged structure is provided which produces a non-sinkable metallic life boat or raft. The sub-division of the buoyant body or hull into independent water tight compartments renders the same practically unsinkable due to the fact that the destruction of one or a number of said compartments will not affect the buoyancy of the boat.

The use of the stringer plates and stringer plate sections together with the fender and hand rail operate effectively to prevent the stoving in of the hull and destruction of the water tight compartments as the impact and strain of a blow will be taken up by the rail and stringer members.

While there has been illustrated and described a single and preferred embodiment of the invention, no limitation is necessarily made to the precise structural details as it is to be understood that variations and modifications which properly fall within the scope of the appended claims may be resorted to when found expedient.

I claim:

1. In a reversible life boat or raft, a peripheral buoyant hull defining a central well extending therethrough, a plurality of bulkheads arranged in said hull to define independent water tight compartments, horizontal stringer plates extending through the side compartments for strengthening the structure and separating the same into upper and lower water tight chambers and stringer plate sections arranged in the end compartments for strengthening the structure.

2. In a reversible life boat or raft, peripheral buoyant hull defining a central well extending therethrough, a plurality of cylindrical water tight braces arranged transversely in said opening, superposed decks disposed adjacent the vertical center of said well between the braces, horizontal stringer plates extending through the side portions of the hull, for separating the same into upper and lower water tight chambers and similar stringer plate sections secured in the end portion of the hull, said stringer plates serving to strengthen the structure.

3. In a reversible life boat or raft, a peripheral buoyant hull defining a central opening, a plurality of cylindrical water tight braces arranged transversely in said well at the vertical center thereof, superposed decks arranged horizontally in said well between the braces, said decks consisting of spaced parallel slats, and horizontal stringer plates arranged within the wall for strengthening the structure against lateral strains.

4. In a reversible life boat or raft, the combination with a buoyant peripheral hull defining a central well extending therethrough and slatted superposed decks arranged horizontally in said well adjacent the vertical center thereof, of transverse water tight braces extending between and connecting the side portions of said hull, and horizontal transverse stringer plates arranged within said hull for strengthening the structure and resisting lateral shocks and strains imparted to the outer periphery of the hull.

5. In a life boat or raft construction, a peripheral buoyant hull comprising a pair of substantially semi-cylindrical sections adapted to be secured together, stringer plates interposed between the outer meeting edges of the end portions of said hull for strengthening the structure, stringer plates adapted to be interposed between the meeting edges of the side portions of said hull sections and extending across the entire width of the same for bracing and strengthening the hull laterally and for dividing the side portions of the same horizontally into upper and lower water tight compartments.

6. In a life boat or raft construction, a buoyant peripheral hull defining a central well and a pair of super-posed decks each consisting of a plurality of parallel spaced slats, the slats of one deck being staggered

with relation to the slats of the other deck, whereby to dispose the spaces therebetween out of vertical alinement, as and for the purpose specified.

7. A life boat or raft comprising a hollow water tight hull defining a central space or well, super-posed decks arranged horizontally within said well at the vertical center of the same, said decks consisting of a plurality of spaced parallel slats separating the space into cock pits of identical areas, either one of which will function to accommodate passengers, and a coaming projecting outwardly from the opposite surfaces of the hull around said well.

WILLIAM STEWART.