

F. W. MARTIN.
LIFE BOAT.
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1,011,464.

Patented Dec. 12, 1911.

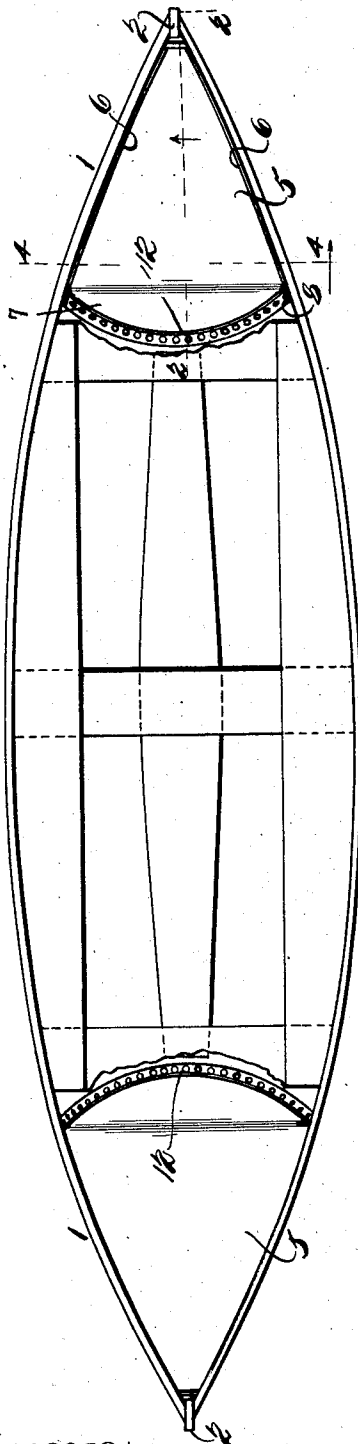


Fig. 1.

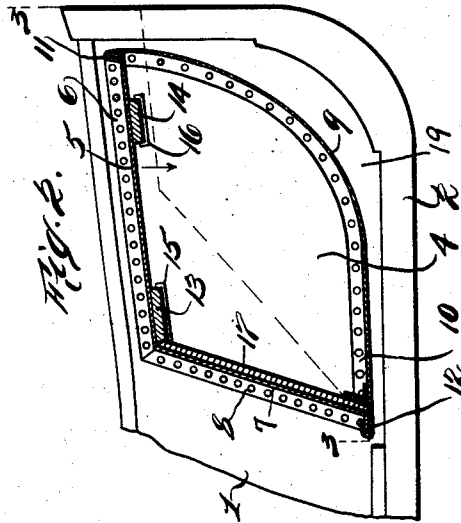


Fig. 2.

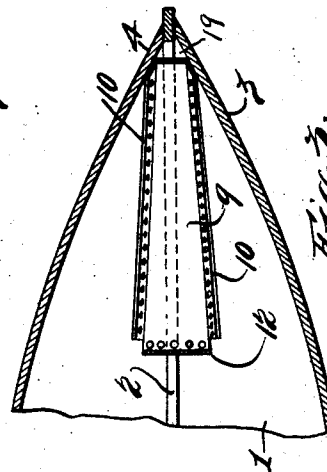


Fig. 3.

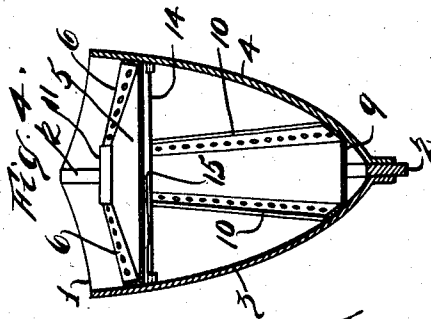


Fig. 4.

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UNITED STATES PATENT OFFICE.

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LIFE-BOAT.

1,011,464.

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To all whom it may concern:

Be it known that I, FREDERIC W. MARTIN, a citizen of the United States, residing at Astoria, New York, have invented certain
5 new and useful Improvements in Life-Boats, of which the following is a clear, full, and exact description.

This invention relates to improvements in life-boats more particularly, although it can
10 be used for small boats in general.

The particular improvement resides in the air chamber or chambers for supporting the boat in case of leakage, and the particular
15 objects gained are to provide an air chamber which has no connection with the keel or with the portions of the hull which directly connect with the keel, and to provide a practical, durable and safe construction for boats such as life boats.

20 These being among the objects of the invention, the same consists of certain features of construction and combinations of parts to be hereinafter described and then claimed with reference to the accompanying
25 drawings showing a suitable embodiment of the invention, and in which—

Figure 1 is a plan of the improved boat; Fig. 2 is a vertical section of a portion of the boat on the line 2—2 Fig. 1; Fig. 3 is
30 a horizontal section on the line 3—3 Fig. 2; and Fig. 4 is a vertical transverse section on the line 4—4 Fig. 1.

The hull 1 of the boat is usually composed of sheet metal such as copper, and is provided with a keel 2. At each end of the boat
35 there is an air chamber which is preferably constructed as shown. Each air chamber comprises opposite side portions 3, 4, of the hull, and a top sheet 5 which is provided
40 with side flanges 6, together with an end sheet 7 provided with side flanges 8. The top and end sheets 5, 7, are preferably formed of one piece of sheet metal bent to the substantial shape shown in Fig. 2 and
45 between the end sheets space is provided in the hull for passengers. The flanges 6, 8, of the two sheets 5, 7, are riveted or otherwise suitably connected with the sides of the
50 hull so as to partially inclose the side portions 3, 4. The outer end of the top sheet 5 is spaced a suitable distance from the keel 2 while the lower end of the end sheet 7 is also spaced a suitable distance from said keel.

55 Heretofore the top and end of the air chamber have been secured in some manner

to the keel but under the present invention such connection and its objections are avoided. The keel being made of wood and the top and ends of the air chamber of metal, 60 it is the usual practice to putty up the small space left between the keel and the top sheet, and it is impracticable to rivet or otherwise directly connect the two sheets with the keel because of the possibility of leakage. It is
65 found in practice that sooner or later the putty filling between the top sheet and the keel fails, and the air chamber will therefore have a leak, which renders the same absolutely useless. Under the present in- 70 vention the air chamber parts are all riveted or soldered together, being composed of sheet metal.

In carrying out the present invention an apron strip 9 of sheet metal is provided, 75 which is formed or bent so as to conform approximately to the inside curvature of the keel. Said apron strip is of tapering form as shown in Fig. 3, its small end being at the end of the boat, and it is provided with side 80 flanges 10 which are riveted to the opposite sides of the hull so as to leave a channel or space 19 between the air chamber and the keel 2. The upper end 11 of the apron strip 9 is preferably bent over or otherwise suitably attached to the top sheet 5 and may be 85 riveted or soldered thereto as preferred. The wider lower end of the apron sheet 9 is likewise attached to the lower end of the end sheet 7 by bending it at 12 over its 90 flange 8, and may be riveted or soldered thereto. Such means of attaching the apron strip 9 to the top and end sheets of the air chamber are fully shown in Fig. 2, and it is obvious that at said points of connection 95 air tight joints are made. There is no attachment of the air chamber to the keel which generally forms a portion of such air chambers, and there is provided between the formed apron strip 9 the channel or passage 100 19. Said channel extending from the top of the air chamber to the interior of the boat permits any water which may be thrown or may fall upon the chambered portions of the boat to flow through said pas- 105 sage into the bottom of the boat. No deterioration of the top of the air chamber by rust or otherwise can occur, as the water simply flows into the bottom of the boat. To facilitate the running off of the water, 110 the top sheet 5 is usually inclined inwardly and downwardly.

For the purpose of strengthening and supporting the top and end sheets of the air chamber, the latter preferably contains a reinforcing frame. Said frame comprises horizontal slats 13, 14, upon which the top sheet 5 rests, the ends of said slats being secured to the hull by suitable supporting devices as 15, 16, secured to the hull. Said frame also preferably comprises a downwardly extending slat or stay 17 which is preferably attached to the mid-length of the horizontal slat 13, while its lower end is secured to the apron strip 9 by any suitable attaching means. Said upright stay 17 furnishes a support for the end sheet 7.

The improved air chamber, being composed entirely of sheet metal and constructed in substantially the manner shown, is absolutely air tight. It is impossible for it to have a leak such as occurs with the old air chambers before described. If any slight puncture of the air chamber occurs it will still act to support the boat unless another puncture occurs from which the contained air can escape.

What I claim is:—

1. In a life boat, the combination of a hull, and an air chamber having side walls formed of portions of said hull which are located away from the keel of the boat and a wall directly above said keel which is separated therefrom by a channel extending from the top of said air chamber, underneath said chamber, and to the space in the hull for receiving passengers, at the inner end of said chamber, and the upper end of

said channel opening upwardly through the top of the boat.

2. In a life boat, the combination of a hull, of which opposite side portions form sides of an air chamber, the remainder of said air chamber comprising a top and an end sheet secured to the sides of said hull, and an apron-strip secured to the sides of said hull and the ends of which are secured to said top and end sheets.

3. In a life boat, the combination of a hull, of which opposite side portions form sides of an air chamber, the remainder of said air chamber comprising a top and an end sheet secured to the sides of said hull, and an apron-strip secured to the sides of said hull and the ends of which are secured to said top and end sheets, said strip having side flanges riveted to the sides of said hull.

4. In a life boat, the combination of a hull, of which opposite side portions form sides of an air chamber, an inner frame for such chamber secured to said hull, the remainder of said air chamber comprising a top and an end sheet secured to the sides of said hull, and an apron-strip secured to the sides of said hull and the ends of which are secured to said top and end sheets, said frame being also secured to said apron-strip.

Signed at Astoria, L. I., N. Y., this first day of August 1911.

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Witnesses:

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