Nov. 29, 1932. L. P. MESSENGER 1,889,368

BOAT

Filed June 18, 1931 2 Sheets-Sheet 1

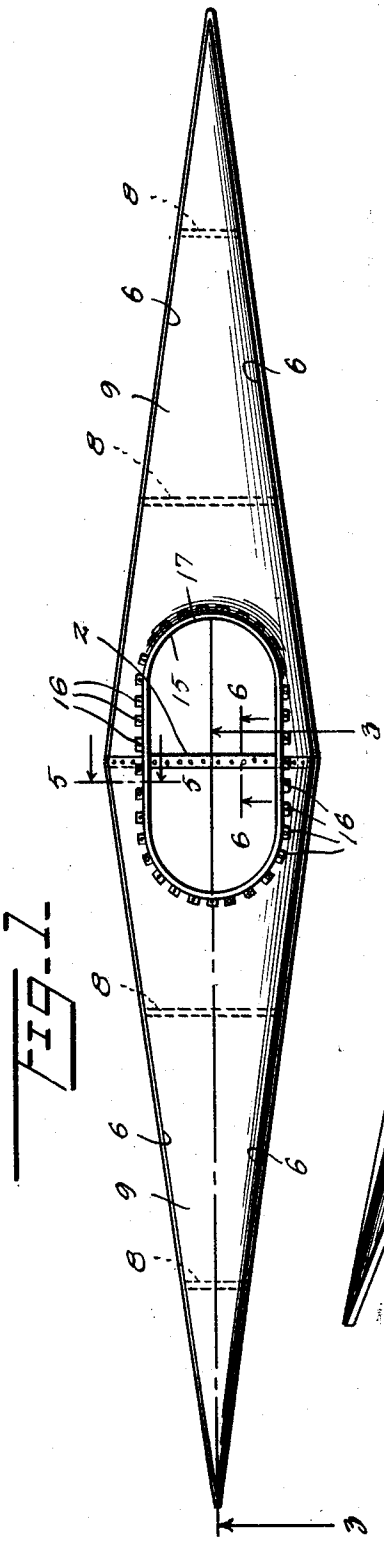


Fig. 1.

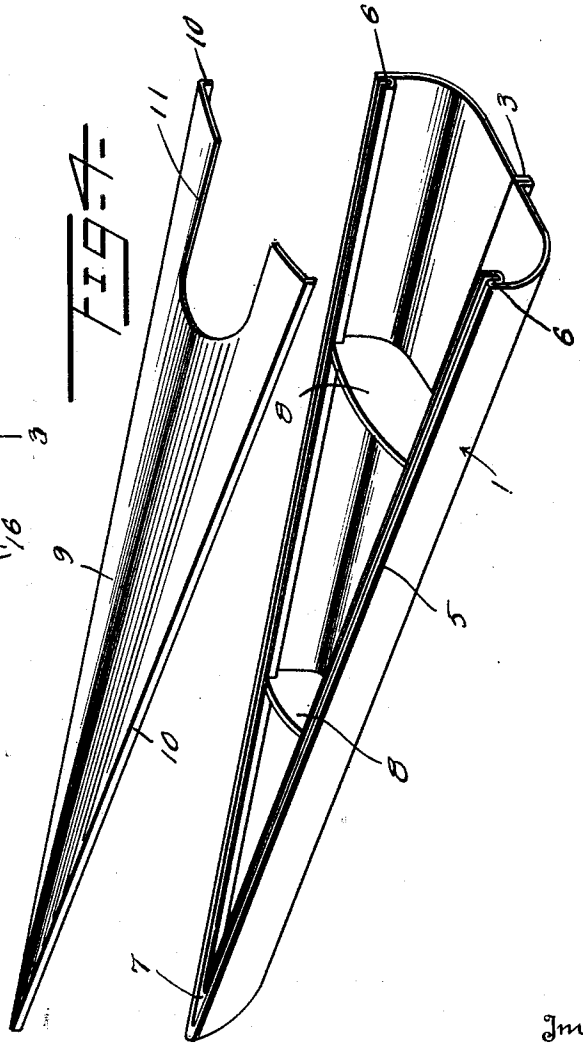


Fig. 4.

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BOAT

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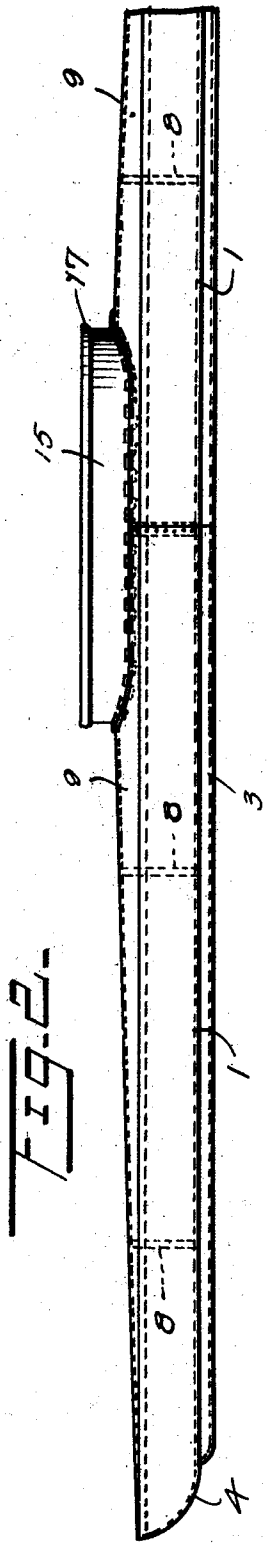


Fig. 2.

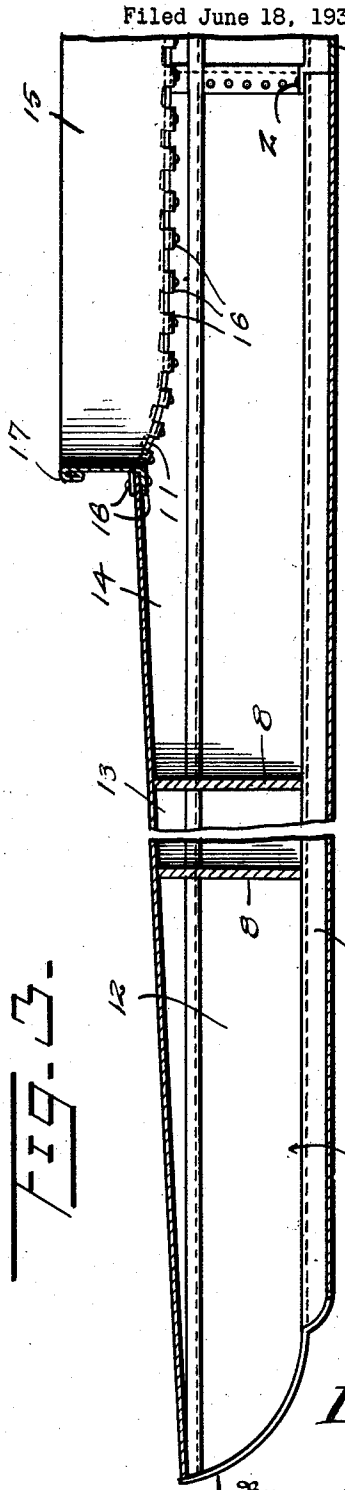


Fig. 3.

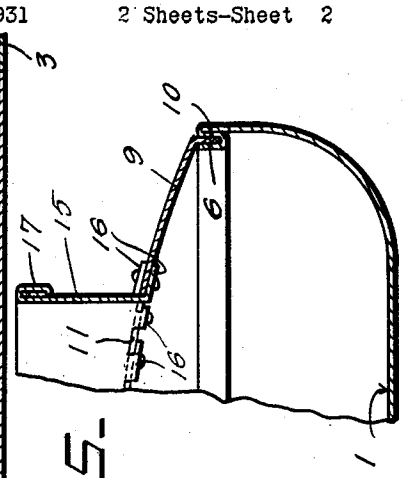


Fig. 5.

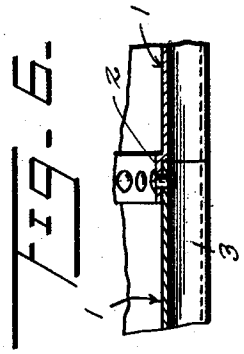


Fig. 6.

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Patented Nov. 29, 1932 1,889,368

UNITED STATES PATENT OFFICE

LEWIS PAUL MESSENGER, OF SANTA BARBARA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO LESTER MONTGOMERY, OF SANTA BARBARA, CALIFORNIA

BOAT

Application filed June 18, 1931. Serial No. 545,289.

This invention relates to the class of boats and particularly small boats of the type to be propelled by a paddle.

The primary object of the present invention is to provide a metal boat in the nature of a shell or canoe, which may be used for pleasure or for water sports and which is partly closed and so designed as to be non-sinkable.

Another object of the invention is to provide an all-metal boat of novel design whereby the hull and deck therefor may be easily formed and readily assembled to produce a leak-proof job and further, whereby air chambers may be readily formed in the ends of the boat, which will act as buoys to prevent the boat from sinking even though the passenger compartment may become completely filled with water.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompaying drawings forming a part of the present invention with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified as long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:—

Figure 1 shows a boat constructed in accordance with the present invention, in top plan;

Figure 2 is a view in side elevation of a major portion of the boat;

Figure 3 is a longitudinal sectional view taken on the line 3—3 of Figure 1;

Figure 4 is a detailed view showing the manner of assembling one of the two hull sections and one of the two deck sections of the boat;

Figure 5 is a sectional view taken on the line 5—5 of Figure 1;

Figure 6 is a sectional view taken on the line 6—6 of Figure 1.

Referring now more particularly to the drawings wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates the two portions of the hull of the boat. Each of these hull sections 1 forms one-half of the complete hull, they being joined together as is clearly shown in Figure 1 to form the central transverse seam 2. Each of the hull sections 1 is made of a single elongated sheet of metal which is folded along its longitudinal center to form a keel flange 3 and has one end edge cut to form the rounded edges 4 which are brought together and secured to form one end of the hull unit. These rounded edges 4 are welded or otherwise suitably secured together to form a water-tight seam and the longitudinal edges of the sheet of which the hull section is formed are then turned up to form the gunwales 5.

Each edge of each gunwale is folded inwardly and then reversely folded or turned upwardly to form the groove or channel 6 along the inner face thereof, these channels being joined together at the end of the hull unit, as indicated at 7 in Figure 4.

At suitable points in each hull section 1 there are positioned the transverse panels or bulkheads 8, the edges of which are secured to the supporting hull section in such a manner as to form an air and water-tight joint or connection therewith.

The midships or inner ends of the hull sections 1 are arranged in the overlapping relation shown in Figure 6 to form the joint 2 and these overlapping edges are riveted together and then welded or otherwise secured so as to form a strong and water-proof joint. The ends of the keel portions 3 may be abutted and suitably secured together as by welding or otherwise and a similar joint may be made between the ends of the channels or grooves 6 of the two sections.

The deck of the boat embodying the present invention is formed in two sections also, each of which is indicated by the numeral 9. Each of these deck sections is substantially triangular in outline and is transversely arcuate as shown. Each longitudinal edge is provided with a down-turned flange strip 10 and the transverse end edge of each has an elongated recess 11 cut therein which forms a portion of the well-hole by which a rider enters the hull of the boat.

As will be readily understood each triangular portion 9 of the deck structure overlies a hull section 1 and the flanges 10 fit into the channels 6 thereof and are soldered or otherwise suitably secured therein.

The bulkheads 8 after being placed in position are welded or otherwise suitably secured around their edges to the hull and to the deck so as to form the dead air chambers 12 and 13 at the bow and stern of the boat, the chamber 14 lying between the two inner or central bulkheads 13 providing the passenger compartment. The abutting ends of the deck sections 9 are suitably secured together and the recesses 11 therein form the complete elongated opening by which the rider enters the compartment 14.

Secured about the edge of the opening through the deck, is a vertically disposed collar 15, the lower edge of which is formed to provide the narrow flanges 16 which are alternately positioned against the upper and lower surfaces of the deck of the boat, to which they are riveted or otherwise suitably secured, the body of the collar 15 being fitted down into the opening through the deck, as is clearly shown in Figures 3 and 5. The top edge of the collar 15 is given a double turn to form the relatively thick edge portion 17 which forms a guard to prevent the injury of the occupant against the top edge of the collar.

From the foregoing it will be readily seen that a boat constructed in accordance with the present invention may be made perfectly water-tight and non-sinkable and can be easily propelled over the water by an occupant positioned in the well 11 and wielding a single or double bladed paddle.

Having thus described my invention, what I claim is:—

1. A boat of the character described comprising a sheet metal hull, a channel formed throughout the edges of the gunwales of the hull, a sheet metal deck covering said hull, inturned flanges formed throughout the edges of the deck and having water-tight engagement in said channels, means to provide an air and water-tight chamber in each end of the boat, said deck having a central opening formed therethrough, and a guard collar surrounding said opening and standing up from the deck.

2. A boat of the character described comprising a sheet metal hull pointed at both ends, a keel formed longitudinally of the hull and constituting a fold of the metal thereof, a channel formed along the inner edge of each gunwale of the hull and constituting an infold of the hull body, a sheet metal deck covering said hull, a flange formed along each longitudinal edge of the deck body and constituting an integral inturned portion of the same and secured in a gunwale channel to form a water-tight joint therewith, said deck having a well-hole therethrough, and a guard collar secured in said well-hole and projecting upwardly above said deck.

3. A boat of the character described comprising a hull formed in two sections, each of said hull sections constituting a single body of sheet metal folded intermediate its ends to form a keel portion and having one end formed to provide two rounded portions which are secured together to form a leak-proof connection, the other ends of said hull sections being joined together and forming a central transverse seam, a channel formed along the inner edge of each gunwale of each section, a deck formed of sheet metal material in two portions, each of said portions being substantially triangular and having an inturned flange along the convergent edges thereof, each of the flanges of each deck portion fitting into a channel of a hull portion and forming a water-tight connection therewith, the other edges of said deck portions being secured together, said deck portions having recesses formed therein at their abutting ends to provide an entrance to the hull, and an upstanding collar secured in said entrance and projecting above the deck and having water-proof connection with the deck.

4. A boat of the character described comprising a hull formed in two sections, each of said hull sections constituting a single body of sheet metal folded intermediate its ends to form a keel portion and having one end formed to provide two rounded portions which are secured together to form a leak-proof connection, the other ends of said hull sections being joined together and forming a central transverse seam, a channel formed along the inner edge of each gunwale of each section, a deck formed of sheet metal material in two portions, each of said portions being substantially triangular and having an inturned flange along the convergent edges thereof, each of the flanges of each deck portion fitting into a channel of a hull portion and forming a water-tight connection therewith, the other edges of said deck portions being secured together, said deck portions having recesses formed therein at their abutting ends to provide an entrance to the hull, an upstanding collar secured in said entrance and projecting above the deck and having water-proof connection with the deck, and bulkhead partitions in the hull having water-tight connection about their edges with the hull and with the deck and forming buoy chambers at the bow and stern of the boat.

5. A boat of the character described, comprising a sheet metal hull, a channel formed throughout the edges of the gunwales of the hull, a sheet metal deck covering said hull, inturned flanges formed throughout the edges of the deck and having water-tight en-

gagement in said channels, and means to provide an air and water-tight chamber in each end of the boat, said deck having a central opening formed therethrough.

6. A boat comprising a hull of sheet metal, a keel extending longitudinally of the hull and constituting a fold in the metal, a deck over the hull, a flange along the edge of the hull formed to provide a groove, and a flange formed along the edge of the deck adapted to fit into said groove to form a water-tight connection therewith.

7. The herein described method of forming a sheet metal body hull of two sheets of metal, which consists in cutting one end of one sheet longitudinally to form two rounded edges, then forming a longitudinal keel fold in the cut sheet from the inner end of the cut to the opposite end of the sheet, then bowing the cut sheet transversely to bring the rounded cut edges together and securing the same, then forming a central longitudinal keel fold in the other sheet and transversely bowing the sheet, then fitting and securing one end of the second mentioned sheet to the other end of the first sheet from the cut end, and finally closing the other end of the second mentioned sheet.

8. A boat of sheet metal comprising a hull formed of two sections, each section consisting of a single sheet of metal having a pointed end and a rounded cut water or stem, the metal of each section, from the beginning of the rounded stem, being folded longitudinally to form a closed fold keel extending throughout the length of the section and of the same depth throughout, the other ends of the sections being engaged one with the other and secured to form a water-tight seam to extend transversely of the boat, the keels of the two sections being in abutting relation at the said other ends.

9. A boat of sheet metal comprising a hull formed of two sections, each section consisting of a single sheet of metal having a pointed end and a rounded cut water or stem, the metal of each section, from the beginning of the rounded stem, being folded longitudinally to form a closed fold keel extending throughout the length of the section and of the same depth throughout, the other ends of the sections being engaged one with the other and secured to form a water-tight seam to extend transversely of the boat, the keels of the two sections being in abutting relation at the said other ends, and a deck overlying a portion of the hull and secured about its edges to the gunwales of the hull.

In testimony whereof I hereunto affix my signature.

LEWIS PAUL MESSENGER.