

May 11, 1943.

W. R. HOOD

2,319,132

SAFETY WATER CRADLE BOAT

Filed July 17, 1941

2 Sheets-Sheet 1

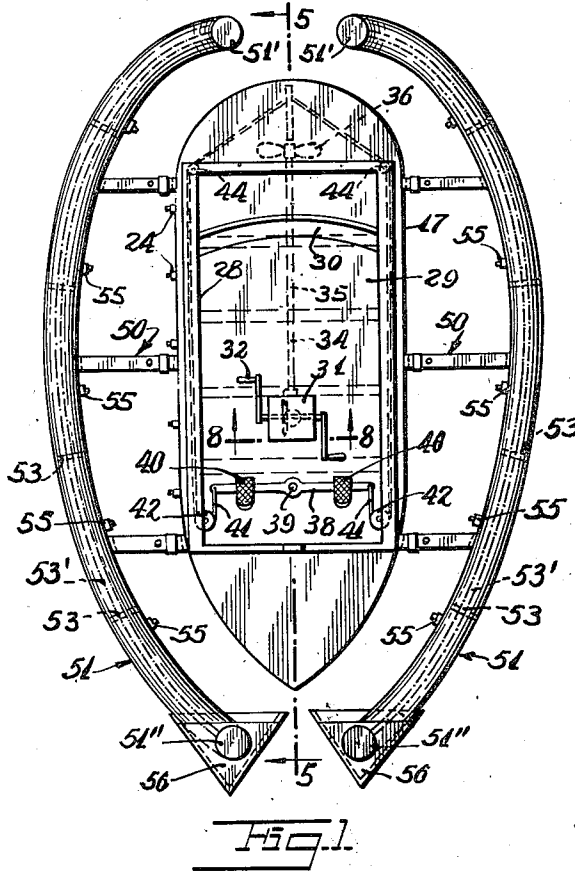
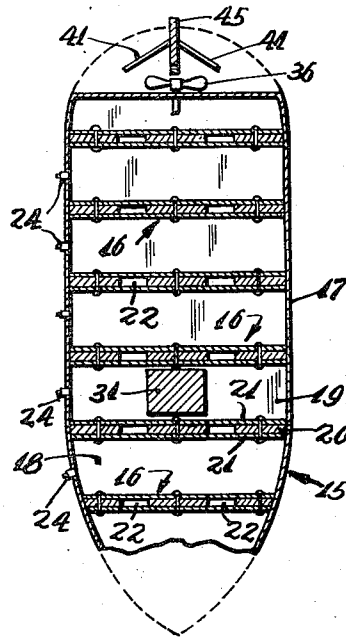


Fig. 4.

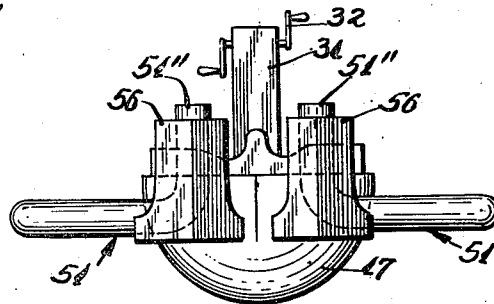


Fig. 2.

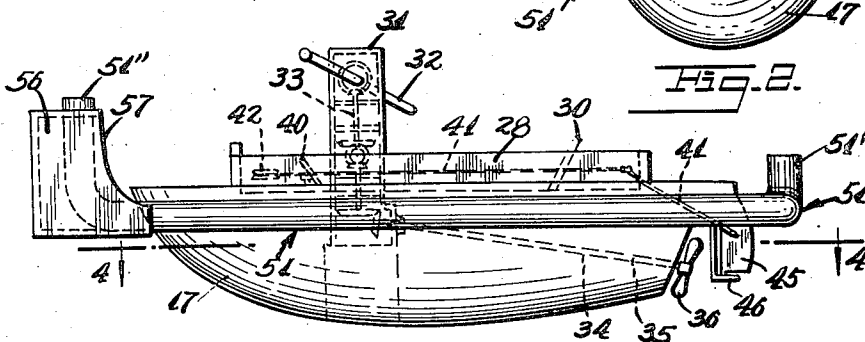


Fig. 3.

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2 Sheets-Sheet 2

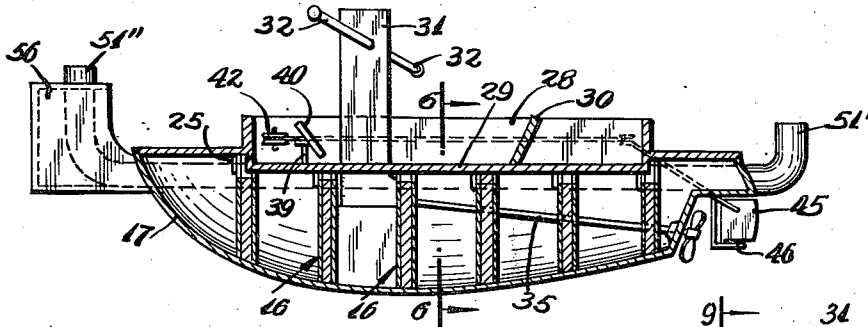


Fig. 5.

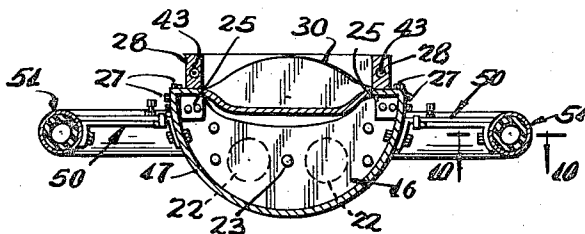


Fig. 6.

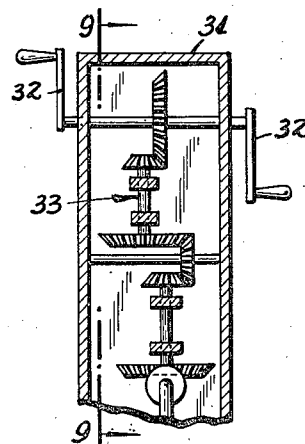


Fig. 8.

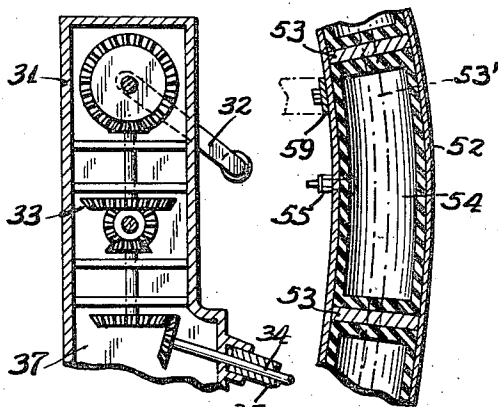


Fig. 9.

Fig. 10.

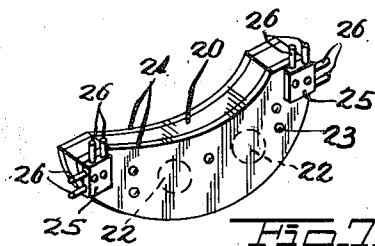


Fig. 7.

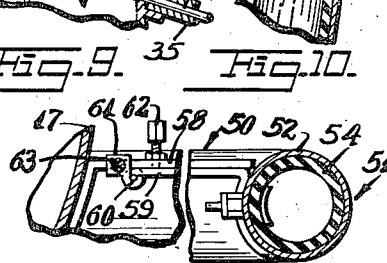


Fig. 11.

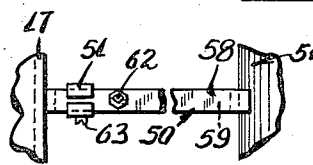


Fig. 12.

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2,319,132

SAFETY WATER CRADLE BOAT

Walter R. Hood, New York, N. Y.

Application July 17, 1941, Serial No. 402,751

4 Claims. (Cl. 114-123)

This invention relates to new and useful improvements in boats, and has particular reference to a safety water cradle boat.

More particularly, the invention proposes to characterize the new boat by a hull of a particular design and a float or floats arranged in a particular way about the side or sides of the hull.

Insofar as the hull is concerned, it is proposed that it include a plurality of transverse frame sections each having a central core layer of wood and sheet metal face layers mounted on the side faces of the core layers, and a completely enclosed sheet metal casing mounted on said transverse frame sections and forming a plurality of separate air compartments.

Insofar as the float is concerned, it is proposed that a plurality of arms be mounted on the sides of the hull and support said floats extended along the sides of the hull.

It is further proposed that each float include a metal casing, a plurality of discs dividing it into separate compartments and air bladders mounted within said compartments and adapted to be inflated with air.

The invention also contemplates a mechanism for propelling and steering the boat.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure—

Fig. 1 is a plan view of a safety water cradle boat constructed in accordance with this invention.

Fig. 2 is a front elevational view of the boat shown in Fig. 1.

Fig. 3 is a side elevational view of the boat shown in Fig. 1.

Fig. 4 is a horizontal sectional view taken on the line 4-4 of Fig. 3.

Fig. 5 is a longitudinal sectional view taken on the line 5-5 of Fig. 1.

Fig. 6 is a transverse sectional view taken on the line 6-6 of Fig. 5.

Fig. 7 is a perspective view of one of the transverse frames used in the hull.

Fig. 8 is a fragmentary enlarged vertical sectional view taken on the line 8-8 of Fig. 1.

Fig. 9 is a vertical sectional view taken on the line 9-9 of the Fig. 8.

Fig. 10 is a fragmentary enlarged horizontal

sectional view taken on the line 10-10 of Fig. 6.

Fig. 11 is a fragmentary enlarged detailed view of a portion of Fig. 6.

Fig. 12 is a plan view of Fig. 11.

5 The safety water cradle boat, in accordance with this invention, includes a hull 15 comprising a plurality of transverse frame sections 16 and a completely enclosed sheet metal casing 17 mounted on said transverse frame sections and forming a plurality of separate air compartments 18, 19, etc. Each of said transverse frame sections 16 has a central core layer 20 of wood, and sheet metal face layers 21 mounted on the side faces of the core layers 20. The core layers 20 are formed with a plurality of perforations 22 or other passages. However, these perforations or passages are closed by the face layers 21. Fastening elements, such as rivets 23 connect the layers 20 and 21 together as a unit.

20 Each of the air compartments 18, 19, etc., is provided with an air valve 24 by which compressed air may be forced into said compartment. The compartments are hermetically sealed so that if one or more becomes punctured, the remaining compartments will still function to hold the boat afloat. The transverse frame sections 16 are provided with plates 25 mounted at the top corners thereof and provided with projecting studs 26 which engage through the metal casing 17. Suitable nuts, or other fastening elements 27, are engaged on the outer ends of these studs 26 to assist in joining the transverse frame sections 16 and casing 17 together (see particularly Fig. 6 in this respect).

35 The hull 15 is provided with an open top cabin 28 provided with a floor 29 and a seat back 30 for the convenience of an operator of the boat. Means is provided for propelling and steering the boat. This means includes a hollow column 31 mounted upon and through the floor 29 to the front of the seat back 30. A crank 32 is mounted through the column 31. This crank 32 connects with a speed step-up transmission 33 which connects with a propeller shaft 34 within a tubular housing or pipe 35. This tubular housing 35 extends rearwards and terminates at the back of the boat. A propeller 36 is mounted on the propeller shaft 34. The column 31 is hollow and has a suitable compartment or compartments 37 for grease or other lubricating material to lubricate the transmission 33. The construction is such that the crank 32 may be manually turned for driving the propeller 36 to propel the boat.

Means is also provided for steering the boat, and this means includes a steering bar 38 pivotally mounted at its center by a pintle 39 mounted on the cabinet floor 29. The steering bar 38 is provided with a pair of foot rests 40 on opposite sides of the pintle 39 by which the bar 38 may be pivoted in one direction or the other. Cables 41 connect with the ends of the bar 38 and are guided over pulleys 42 and through passages 43 in the side walls of the cabin 28 (see Fig. 6). These cables 41 extend to the rear of the boat and extend over additional guiding pulleys 44 and then connect with opposite sides of a rudder 45 which is pivotally mounted in a frame 46 mounted on the boat.

A plurality of arms 50 is mounted on the sides of the hull 15 and support floats 51. There are two of these floats 51, each extending along one of the sides of the hull. Each float 51 includes a hollow metal casing 52 divided by a plurality of discs or partitions 53 into a plurality of separate chambers. Each of the chambers is provided with a bladder 54 which has the usual air control valve 55 by which the bladder may be supplied with compressed air. The rear ends 51' of the floats are bent upwards, as clearly shown in Figs. 1 and 5. The front ends 51'' of the floats are also bent upwards. These front ends are provided with wedge shaped members 56 which will assist in cutting the water when the boat moves forwards. Each of these wedge shaped members 56 is formed from a hollow body which is open at its rear end 57. The upturned ends 51''' extend into the open rear ends 57 and then up through top openings in the top walls of the members 56. The discs 53 may also be connected by suitable connecting rods 53' to reinforce the floats 51.

Each arm 50 is made from a stationary section 58 and an adjustable section 59. Each stationary section 58 is fixedly mounted on the hull 15 of the boat and extends outwards. Each section 59 is fixedly mounted on a float 51 and extends inwards. The inner ends of the sections 59 are pivotally connected by hinge constructions 60 with slides 61 slidably mounted on the sections 58. A set screw 62 threadedly engages through each stationary section and is adapted to abut a movable section for holding these parts in relative pivoted positions. Set screws 63 engage through the slides 61 and abut the edges of the stationary sections 58 to hold the slides 61 in relatively fixed positions.

The set screws 63 may be loosened and then the floats 51 may be moved inwards or outwards, so as to place them at selected positions relative to the hull 15. Then the set screws 63 are tightened. In the event that a relatively light person is using the boat, it will be found that the hull 15 floats at a higher elevation. In this event the floats 51 will hang downwards and rest on the water. The set screws 62 may then be extended downwards so as to hold the hinge sections 59 in their downwardly extended positions. Thus the set screws 62 prevent loose flapping of the floats 51 and serve to directly communicate the buoyancy of the floats 51 to the hull 15.

The operation of the device is as follows:

A passenger may sit on the floor 29 of the cabin 28 and operate the propelling and steering mechanisms of the boat. The floats 51 extend laterally of the hull of the boat and stabilize the boat to prevent it from easily tipping over. The floats 51 are of such design that they facilitate cutting

the water and so reducing the "head on" resistance of the boat.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

1. A safety water cradle boat having a hull with a float extended longitudinally along one side of said hull and a plurality of arms between said hull and float supporting said float on said hull, each of said arms being constructed of separate sections, comprising a stationary section having its inner end securely mounted upon the side of said hull, and adjustable section having its outer end securely mounted on the side of said float, and means for pivotally slidably connecting together the adjacent ends of said arm sections, whereby said float may be spaced a desired distance from said hull and pivot downwards to rest on the surface of the water in various positions of said hull on the water.

2. A safety water cradle boat having a hull with a float extended longitudinally along one side of said hull and a plurality of arms between said hull and float supporting said float on said hull, each of said arms being constructed of separate sections, comprising a stationary section having its inner end securely mounted upon the side of said hull, and adjustable section having its outer end securely mounted on the side of said float, and means for pivotally slidably connecting together the adjacent ends of said arm sections, whereby said float may be spaced a desired distance from said hull and pivot downwards to rest on the surface of the water in various positions of said hull on the water; comprising a sleeve slidably engaging an intermediate portion of said stationary section, a hinge pivotally connecting the inner end of said adjustable section to said sleeve, and means for holding said sleeve in various adjusted positions along the length of said stationary section.

3. A safety water cradle boat having a hull with a float extended longitudinally along one side of said hull and a plurality of arms between said hull and float supporting said float on said hull, each of said arms being constructed of separate sections, comprising a stationary section having its inner end securely mounted upon the side of said hull, and adjustable section having its outer end securely mounted on the side of said float, and means for pivotally slidably connecting together the adjacent ends of said arm sections, whereby said float may be spaced a desired distance from said hull and pivot downwards to rest on the surface of the water in various positions of said hull on the water, comprising a sleeve slidably engaging an intermediate portion of said stationary section, a hinge pivotally connecting the inner end of said adjustable section to said sleeve, and means for holding said sleeve in various adjusted positions along the length of said stationary section, said latter means, comprising a set screw threadedly engaged through one side of said sleeve and abutting an adjacent face of said stationary section.

4. A safety water cradle boat having a hull with a float extended longitudinally along one side of said hull and a plurality of arms between said

hull and float supporting said float on said hull, each of said arms being constructed of separate sections, comprising a stationary section having its inner end securely mounted upon the side of said hull, and adjustable section having its outer end securely mounted on the side of said float, and means for pivotally slidably connecting together the adjacent ends of said arm sections, whereby said float may be spaced a desired distance from said hull and pivot downwards to rest on the surface of the water in various positions of said hull on the water, comprising a sleeve slidably engaging an intermediate portion of said stationary section, a hinge pivotally connecting the

inner end of said adjustable section to said sleeve, and means for holding said sleeve in various adjustable positions along the length of said stationary section, and a set screw engaged through said stationary section at a point between said sleeve and the other end of said stationary section to engage the top face of said adjustable section after the adjustable section has assumed a downward inclined position in which said float rests on the surface of the water to prevent upward pivoting of the adjustable section relative to said stationary section.

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