Aug. 13, 1957 W. T. O'MARA 2,802,221

SAFETY BOAT

Filed May 4, 1956 2 Sheets-Sheet 1

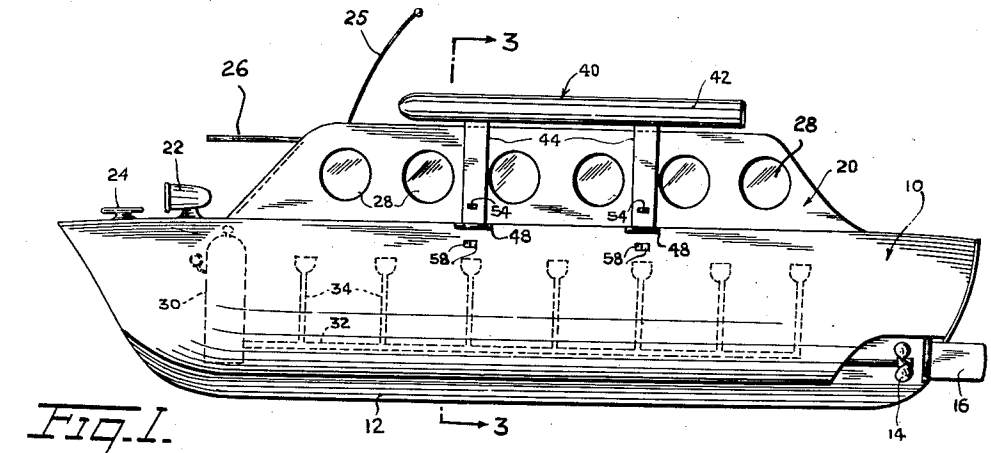


Fig. 1.

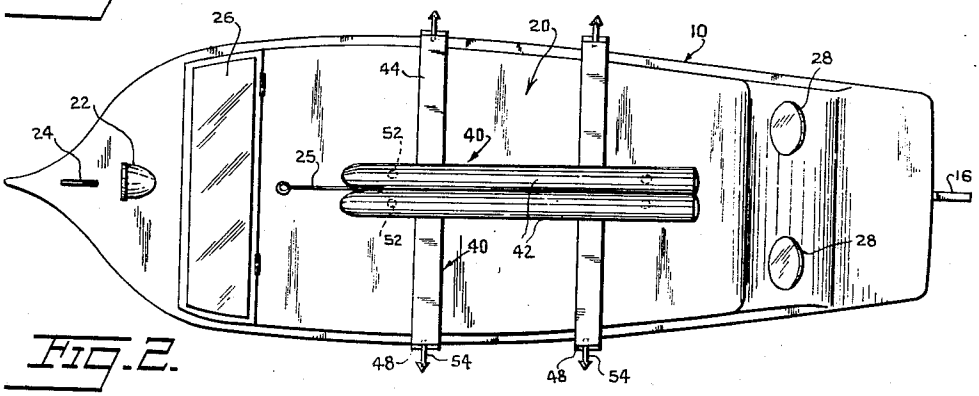


Fig. 2.

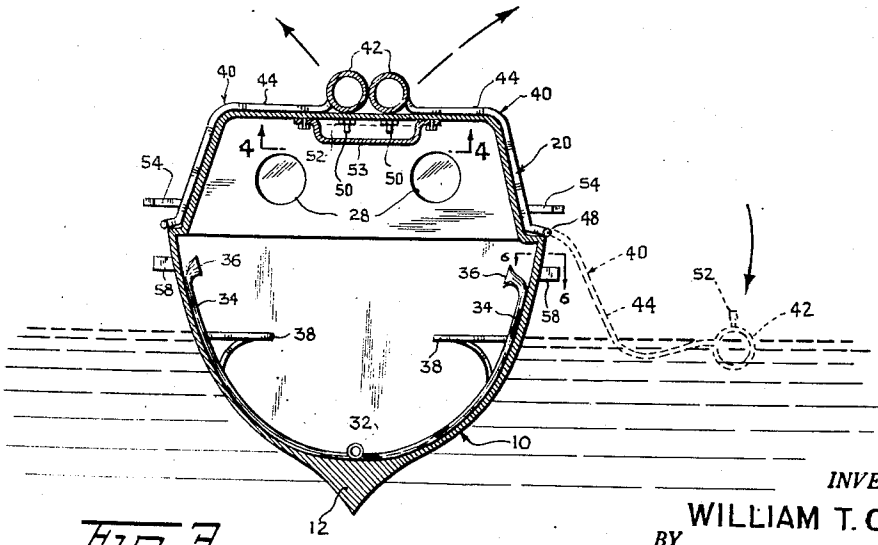


Fig. 3.

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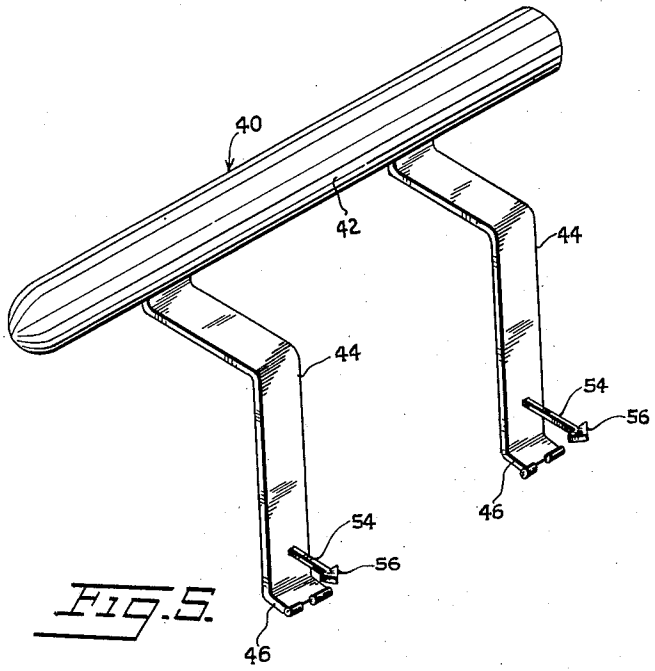


Fig. 5.

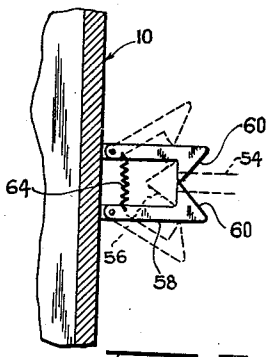


Fig. 6.

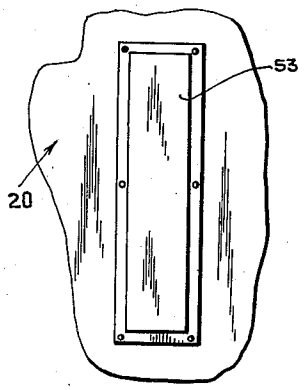


Fig. 4.

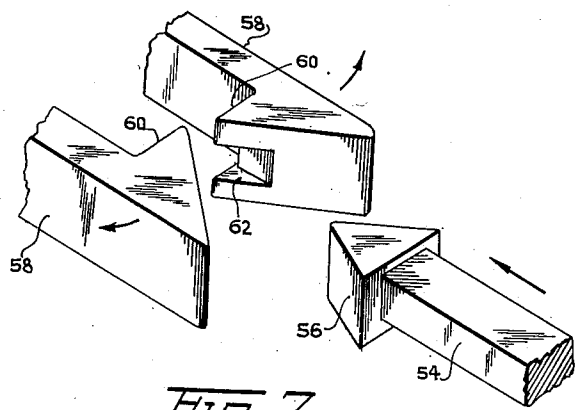


Fig. 7.

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SAFETY BOAT

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Application May 4, 1956, Serial No. 582,673

3 Claims. (Cl. 9—4)

This invention relates to boat construction, and more particularly has reference to a boat adapted to be used for any of various purposes as, for example, a lifeboat or fishing boat.

The invention has particular adaptability for use as a lifeboat, and will accordingly be hereinafter described as such, although it will be understood that it can be used for any of various other purposes.

Ordinarily, a liefboat is of open construction, and when launched in stormy seas, is subject to swamping or capsizing. Further, in many instances, it is necessary that those occupying the lifeboat remain in the same for long periods of time awaiting rescue. Throughout this time, said persons are fully exposed to the elements, and apart from their suffering considerable discomfort, said exposure may seriously weaken them, often resulting in an inability to survive until rescue arrives.

The main object of the present invention, accordingly, is to provide a lifeboat that will be particularly adapted to provide maximum comfort while it is in use, and will further be capable of weathering stormy seas with a minimum danger so far as swamping or capsizing is concerned.

A further object is to provide a boat construction as stated which can be completely sealed while in use, so as to provide therein a cabin that will be fully protected against the sea, wind, rain, etc., with said cabin being equipped with one or more oxygen tanks and with a number of oxygen masks that can be used by the persons occupying the boat.

A further object of importance is to provide, on a boat of the type referred to, means for stabilizing the boat comprising outriggers swingable between inoperative and operative positions, said outriggers being so designed as to be flattened against the cabin when not in use.

A further object of importance is to provide, in association with the outriggers, means for automatically latching the same in their use position.

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 side elevational view of a boat formed according to the present invention.

Fig. 2 is a top plan view thereof.

Fig. 3 is a transverse sectional view therethrough on line 3—3 of Fig. 1, the outriggers being shown in full lines in their inoperative positions and in dotted lines in their use positions.

Fig. 4 is a fragmentary view of the cabin roof as seen from the line 4—4 of Fig. 3.

Fig. 5 is an enlarged perspective view of one of the outriggers per se.

Fig. 6 is a detail sectional view, still further enlarged, of the outrigger latch means as seen from the line 6—6 of Fig. 3, the dotted lines showing said latch means in released position.

Fig. 7 is a fragmentary, exploded, perspective view, the scale being enlarged still further, of the latching assembly.

The lifeboat constituting the present invention includes a hull generally designated at 10. This would be suitably sealed against the passage not only of moisture, but also of air and might, for example, be formed from a single piece of molded, suitably reinforced, metal. The hull is of generally conventional outline, including a keel 12.

Further, the lifeboat may, if desired, be equipped with its own engine, and may be driven in any conventional manner as, for example, by a screw 14. A rudder 16 may also be provided.

These, it will be understood, are details of construction which might be varied if desired by the particular manufacturer.

At 20 there has been generally designated a cabin, and this might in some instances be formed integrally with the hull. If the cabin is formed as a separate member, it would be sealably joined to the hull, so as to cooperate with the hull in sealing the interior of the boat against the admission of outside air.

Forwardly of the cabin, there can be provided a headlight 22, as well as means 24 about which a cable might be looped. An antenna 25 may extend upwardly from the cabin, for transmission and receipe of radio signals.

In calm seas, it may be desired to open the cabin to outer atmosphere, and accordingly, the cabin is provided in its front end with an outwardly, upwardly swingable windshield 26. Additionally, ports 28 may be provided along opposite sides of and at the back end of the cabin, with said ports being either permanently sealed or alternatively, being adapted to be opened whenever desired but fully sealed against the passage of air when closed.

Within the cabin there is provided one or more tanks 30, adapted to hold a suitable quantity of oxygen under pressure and extending from said oxygen supply is a main outlet tube 32, from which extend, to opposite sides of the hull, branch tubes 34 provided at their outlet ends with oxygen masks 36. Masks 36 are disposed adjacent seats or benches 38 extending along opposite sides of the hull.

Various other interior fittings may of course be provided, it being obvious that with the interior of the cabin fully sealed, and with an internal supply of oxygen assured, full comfort is afforded for the passengers, regardles of the presence of stormy weather conditions.

To maintain the boat in a stabilized condition despite high seas, there may be provided, as shown in the several figures of the drawing, foldable outrigger assemblies generally designated at 40. The outrigger assemblies are swingable outwardly from opposite sides of the hull. Each includes an elongated, buoyant member 42 adapted to rest upon the top of the cabin when not in use.

Each outrigger assembly 40 further includes a pair of angular arms 44, said arms being so bent as to extend in contact for their full lengths, when the outriggers are not in use, with the top and side walls of the cabin. Arms 44 at the ends thereof remote from the buoyant members 40 have lateral, short extensions 46 formed with hinge sleeves receiving a hinge pin 48, whereby the arms are hinged to the opposite sides of the hull, at the juncture of the hull with the cabin.

Rigid with and projecting radially, outwardly from members 42, at locations spaced longitudinally thereof, are studs 50. When the outriggers are not in use, said studs extend through openings in the cabin roof and threadable onto the studs within the cabin are nuts 52,

thus securely holding the outriggers in their inoperative positions.

A cover plate 53, shaped to an elongated, rectangular outer configuration, has a main portion offset downwardly from the cabin roof and enclosing the studs. At its periphery, said plate is sealably and removably connected to the cabin roof.

Whenever it is desired to swing the outriggers to their use positions, plate 53 is removed, after which the nuts 52 are turned off the studs. The outriggers may now be swung outwardly to their positions shown in dotted lines in Fig. 3, and when in these positions are located at the water line of the hull, substantial distances outwardly from the sides thereof.

When the arms swing to their dotted line positions, they are locked automatically by a latch means on the hull and arms respectively. The arms have laterally outwardly projecting shanks 54, rigid with the arms adjacent the hinge pins 48, and formed with triangular heads 56 automatically engaging between latch arms 58 carried by the hull.

The latch arms 58 are pivotally swingable about horizontal axes, and at their outer ends have confronting heads 60 formed with cam surfaces converging in the direction of the hull. The triangular head 56 of the latch member of the swingable arm 44 is adapted to enter between the heads 60, exerting a cam action on the same to temporarily bias the heads 60 away from one another.

Formed in the heads 60 (see Fig. 7) are confronting recesses 62, and when the triangular head of shank 54 passes the heads 60, shank 54 engages in the recesses 62. A contractile spring 64 is connected between the pivoted latch arms 58, so as to cause heads 60 to engage in back of the triangular head 56 after entry of head 56 between the latch arms.

Obviously, the latch arms can be shifted away from one another whenever the latch member 54, 56 of arm 54 is to be disengaged for the purpose of swinging the outriggers back to their inoperative positions.

It is to be understood that under most weather conditions the boat may be opened at intervals to replenish the boat compartment with fresh air. However, in rough weather, the air in the boat may be purified by the use of any well-known means.

Instead of breathing oxygen from a tank or tanks contained within the boat itself, the passengers and crewmen might use breathing apparatus such as is used now by underwater swimmers, having a small container of oxygen strapped to the back of the wearer, with a mask connected to it to fit over the mouth and nose. Similar apparatus utilizing compressed air instead of oxygen could be used, but the use of the latter should be confined to crewmen, who have had considerable training along these lines.

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

1. A boat construction comprising a hull, a cabin thereon, and means carried by said hull for stabilizing the same, comprising outrigger assemblies connected to the hull at opposite sides thereof and adjustable between inoperative positions in engagement with the cabin, and operative positions in which the outrigger assemblies project laterally, outwardly from opposite sides of the hull, each of said outrigger assemblies including a buoyant member and at least one arm fixedly connected to said buoyant member at one end and hinged at its other end to the hull for swinging movement between said inoperative and operative positions, said arm being angularly shaped to extend in contact with the roof and one side wall of the cabin in the inoperative position of the outrigger assembly, each of said assemblies further including latch means interengaging between said assembly and the hull in the operative position of the assembly, said latch means comprising a latching plunger on the arm and confronting latch elements on the hull engageable with said latching plunger.

2. A boat construction comprising a hull, a cabin thereon, and means carried by said hull for stabilizing the same, comprising outrigger assemblies connected to the hull at opposite sides thereof and adjustable between inoperative positions in engagement with the cabin, and operative positions in which the outrigger assemblies project laterally, outwardly from opposite sides of the hull, each of said outrigger assemblies including a buoyant member and at least one arm fixedly connected to said buoyant member at one end and hinged at its other end to the hull for swinging movement between said inoperative and operative positions, said arm being angularly shaped to extend in contact with the roof and one side wall of the cabin in the inoperative position of the outrigger assembly, each of said outrigger assemblies further including latch means interengaging between each of said outrigger assemblies and the hull in the operative position of the outrigger assemblies, said latch means comprising a latching plunger on the arm and confronting latch elements on the hull engageable with said latching plunger, said plunger having a triangular head providing opposed, convergent cam surfaces thereon, said elements having normally contacting heads formed with cam surfaces complementing those of the first-named head, for spreading of the latch elements by the plunger on swinging movement of the arm outwardly from the hull.

3. A boat construction comprising a hull, a cabin thereon, and means carried by said hull for stabilizing the same, comprising outrigger assemblies connected to the hull at opposite sides thereof and adjustable between inoperative positions in engagement with the cabin, and operative positions in which the outrigger assemblies project laterally, outwardly from opposite sides of the hull, each of said outrigger assemblies including a buoyant member and at least one arm fixedly connected to said buoyant member at one end and hinged at its other end to the hull for swinging movement between said inoperative and operative positions, said arm being angularly shaped to extend in contact with the roof and one side wall of the cabin in the inoperative position of the outrigger assembly, each of said outrigger assemblies further including latch means interengaging between each of said outrigger assemblies and the hull in the operative position of the outrigger assemblies, said latch means comprising a latching plunger on the arm and confronting latch elements on the hull engageable with said latching plunger, said plunger having a triangular head providing opposed, convergent cam surfaces thereon, said elements having normally contacting heads formed with cam surfaces complementing those of the first-named head, for spreading of the latch elements by the plunger on swinging movement of the arm outwardly from the hull, said heads of the latch elements having confronting recesses adapted to receive the plunger in the interengaging relationship of the plunger and latch elements, the head of the plunger in said relationship engaging in back of the heads of the respective latch elements.

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