June 18, 1963 M. IWANITZA 3,093,849

BOAT SAFETY ATTACHMENT

Filed April 18, 1962 2 Sheets-Sheet 1

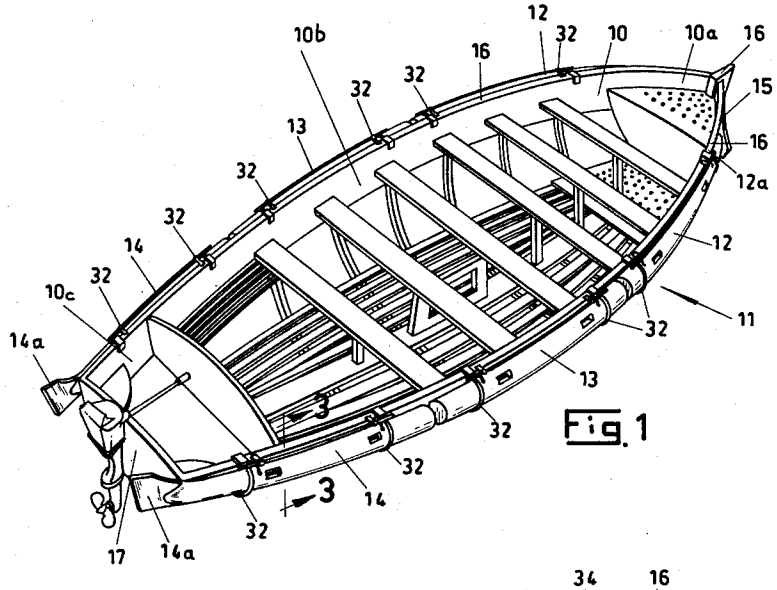


Fig. 1

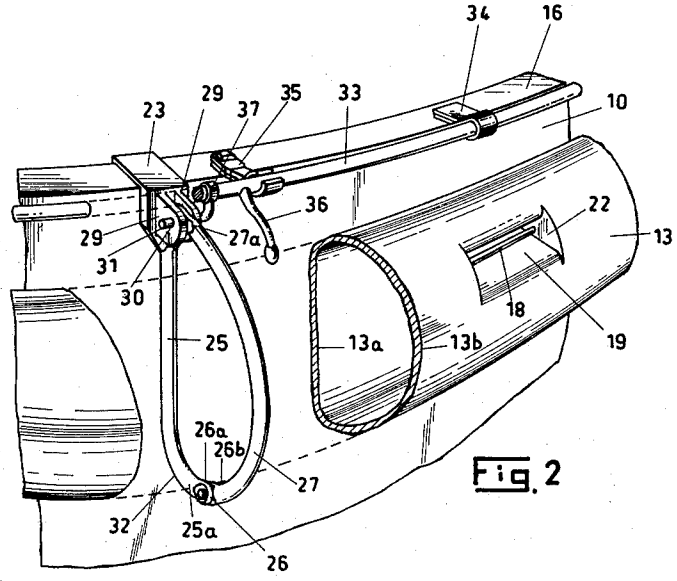


Fig. 2

INVENTOR

Michael Iwanitza

June 18, 1963 M. IWANITZA 3,093,849

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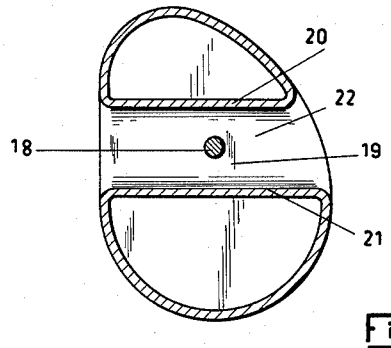


Fig. 3

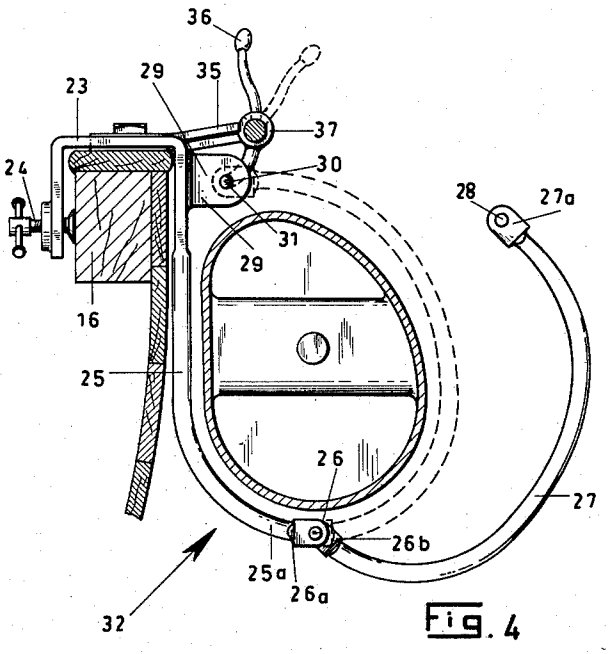


Fig. 4

INVENTOR.

Michael Iwanitza

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BOAT SAFETY ATTACHMENT

Michael Iwanitza, % Canadian Research and Development Foundation, 1434 Queen St. W., Toronto, Ontario, Canada

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This invention relates to improvements in boating accessories and more particularly to safety attachments for boats.

It is conventional practice for all boat users to wear life jackets when afloat, the main disadvantage of this system being that such life jackets must be worn conscientiously and are frequently forgotten or ignored. Any subsequent emergency while afloat could, of course, result in drowning.

A primary object of the present invention is, therefore, to provide a safety attachment for boats which will ensure flotation equipment always being readily available should an emergency arise.

Another object of the invention is to provide a safety attachment for boats which will increase the potential buoyancy of the boat and substantially prevent it from foundering.

A further object of the instant invention is to provide a safety attachment for boats, the flotation equipment thereof being quickly and easily detachable from the boat should it be desirable to utilize said equipment in separate sections or the support of individual persons in the water in preference to their use collectively in supporting the boat.

Still another object of this invention is to provide a safety attachment for boats which will in turn provide sufficient separate flotation sections to support at least the legal number of passengers individually in the event of an emergency.

Yet another object of the invention is to provide a safety attachment for boats which is simple to fit to the boat and which will not unduly detract from the appearance thereof.

Still a further object of the invention is to provide a safety attachment for boats which, by means of shield plates, will permit operation of such boats at speed or in heavy seas without upsetting the control or manoeuvrability thereof.

These and other objects and features of this invention will become apparent when taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of a boat embodying the safety attachment of the present invention.

FIG. 2 is a fractional, part sectional, perspective view of the boat illustrated in FIG. 1, showing particularly details of the quick release mechanism incorporated in the invention.

FIG. 3 is a sectional end elevation of one of the flotation members embodied in the present invention, taken on the line 3—3 of FIG. 1, showing particularly one of the handgrips.

FIG. 4 is a sectional end elevation of the invention showing quick release mechanism during the releasing action.

Referring to FIG. 1, a conventional boat **10** is illustrated having a safety device **11** of the present invention fitted thereto.

Device **11** includes a plurality of flotation units **12, 13** and **14** releasably attached to the sides of boat **10**, the numerals **12** designating oppositely located pair of floats situated at the bows **10***a* of boat **10**; the numerals **13** designating an oppositely located pair of floats extending along the beam **10***b* of boat **10**; and the numerals **14** designating the rearmost pair of floats flanking the quarter **10***c* of boat **10**.

A flat deflector plate **15** of nickel, steel or the like is attached to the upper end of the stem **16** of boat **10** and extends outwardly and rearwardly from each side of the bows thereof to shield the forward ends **12***a* of the front floats **12**.

It will be noted that floats **12, 13** and **14** are tubular and preferably formed of such rigid plastic material as polyethylene or the like wherein it will maintain its shape and be highly resistant to knocks, scuffing or similar wearing actions inherent in boat operation.

FIG. 2 shows in greater detail the general sectional configuration of a float **13**, the remaining floats being similar thereto in section, and it will be noted that the innermost wall **13***a* is substantially flat, being adapted to closely parallel the outer surface of boat **10** immediately below the gunwale **16** thereof.

The outer wall **13***b* of float **13** is of substantially semi-oval section, being wider at the bottom and tapering toward the top to provide a run-off for any water which may splash onto the gunwales **16**.

From FIG. 1, it will be seen that floats **12, 13** and **14** vary in external appearance inasmuch as the forward ends **12***a* of floats **12** are tapered to fit between deflector plate **15** and the sides of boat **10** and the rear ends **14***a* of floats **14** are adapted to extend behind the transom **17** of boat **10** in a fin-like conformation in order to enhance the appearance of boat **10** and to provide additional directional stability when operating at speed.

Each float **12, 13** and **14** is provided with two handgrips **18—18**, the construction of which is more fully shown in FIGS. 2 and 3, wherein a tunnel **19** is formed through said floats at the required stations, said tunnels **19** having upper and lower walls **20** and **21** respectively and two side walls **22—22**. Handgrip **18** comprises a rigid bar extending between side walls **22** substantially centrally thereof. Each tunnel **19** is, of course, sufficiently wide to permit a hand to be inserted from either side and the fist to be clenched about bar **18**.

Referring to FIGS. 1, 2 and 4, the quick release means of attaching floats **12, 13** and **14** to boat **10** is illustrated in which each of said floats is retained in position adjacent gunwales **16** by two releasable clips **32**.

Each clip **32** comprises a clamping head **23** adapted to fit closely over gunwale **16** and secured thereto by a clamping screw **24** located inboard of boat **10**.

A fixed rod **25** extends downwardly from head **23** in close contiguity with the outer surface of boat **10** and the lower end **25***a* thereof curves outwardly therefrom to terminate in a vertically flat, fixed portion **26***a* of a hinge **26**. The mating portion **26***b* of hinge **26** is integral with a movable rod **27** which is shaped to follow the contour of the outer walls of its respective floats **12, 13** or **14**. The upper end **27***a* of rod **27** is also vertically flat and a hole **28** formed therethrough.

Two parallel, spaced apart lugs **29—29** extend horizontally outwardly from clamping head **23** and are adapted to freely receive end **27***a* of rod **27** therebetween. A hole **30** is formed through each lug **29** and, upon assembly of end **27***a* of rod **27** between lugs **29**, hole **28** therein and holes **30** in lugs **29**, are in axial alignment.

A locking pin **31** is thereafter slidably assembled through holes **28** and **30** and the respective float assembly is securely and closely retained between fixed and movable rods **25** and **27**. Each pair of clips **32** are interlinked by a common release bar **33** extending therebetween and held adjacent gunwale **16** by a centre support bracket **34** and two outer brackets **35**. Centre bracket **34** permits free axial rotation of bar **33** and also fore and aft movement thereof. Each outer bracket **35** is channeled at its upper side to permit passage therethrough of a release handle

36 adapted to extend radially outwardly from bar 33, there being a release handle 36 adjacent each bracket 35.

Each locking pin 31 is attached to bar 33 by means of a collar 37, suitable shoulder means being formed on bar 33 to permit the latter to rotate axially independently of collar 37 but to communicate longitudinal movement through collar 37 to pin 31.

Thus, as illustrated in FIG. 2, with locking pins 31 holding clips 32 in their closed position as described, release handles 36 are located in a downward position and bar 33 is thereby prevented from longitudinal movement by outer brackets 35.

Upon wishing to release clips 32, it is merely necessary to grasp either release handle 36 and move it arcuately upwardly until both handles 36 register with the channeled portion of outer brackets 35 and handle 36 may then be moved longitudinally, causing bar 33 to move likewise and, through collars 37, thereby removing pins 31 from their respective lugs 29 and simultaneously releasing clips 32.

In this manner, any or all of floats 12, 13 and 14 may be quickly and easily released in an emergency. It should also be noted that said floats also provide much additional buoyancy should boat 10 become water-logged, and hand grips 18 are also useful in permitting swimmers or the like to obtain a firm hand hold on boat 10 if required.

The general design of the individual parts of the invention as explained above may be varied according to requirements in regards to manufacture and production thereof, while still remaining within the spirit and principle of the invention, without prejudicing the novelty thereof.

The embodiments of this invention in which an exclusive property or privilege is claimed are defined as follows:

1. A safety device for boats including a plurality of flotation units of substantially tubular configuration; each of said flotation units having tunnel-like holes formed therethrough; hand grips comprising bars centrally located within said tunnels, each of said tunnels being of sufficient size to permit the passage therein of a hand and to permit said hand to firmly clench said bar; said flotation units being in longitudinal alignment adjacent the gunwales of said boat; releasable clip means retaining said flotation units on said boat; the rear end of the rearmost of said flotation units being of fin configuration; and deflector plate means extending outwardly and rearwardly from the centre stem of the bows of said boat externally of the forward ends of the foremost of said flotation units.

2. A safety device for boats as defined in claim 1, each of said releasable clip means including a clamping head detachably attached to said gunwales, a fixed rod extending downwardly from said head and a movable rod hingedly attached thereto; said fixed and movable rods being shaped to the external, sectional contour of said

flotation units; a first position of said movable rod wherein said unit is firmly held between said fixed and movable rods; a second position of said movable rod wherein said flotation unit may be freely removed from said boat; each of said clamping heads having a pair of parallel, spaced apart lugs; said movable rod having a free end co-operably insertable between said lugs; said lugs and said free end having holes formed therethrough and all of said holes being in axial alignment upon said movable rod being in said first position; lock pin means slidably insertable through said holes; release bar means interlinking all of said lock pins common to one of said flotation units; support means for said release bars extending outwardly from said gunwales; release handle means integral with said release bars; and means co-operable with said release handles for the selectable retention of said bars in said first position wherein said associated lock pins are housed through said lugs and said free ends of said movable rods.

3. A safety device for boats as defined in claim 1, each of said releasable clip means including a clamping head detachably attached to said gunwales, a fixed rod extending downwardly from said head and a moveable rod hingedly attached thereto; said fixed and movable rods being shaped to the external, sectional contour of said flotation units; a first position of said movable rod wherein said unit is firmly held between said fixed and movable rods; a second position of said movable rod wherein said flotation unit may be freely removed from said boat; each of said clamping heads having a pair of parallel, spaced apart lugs; said movable rod having a free end co-operably insertable between said lugs; said lugs and said free end having holes formed therethrough and all of said holes being in axial alignment upon said movable rod being in said first position; lock pin means slidably insertable through said holes; release bar means interlinking all of said lock pins common to one of said flotation units; support means for said release bars extending outwardly from said gunwales; release handle means integral with said release bars; and means co-operable with said release handles for the selectable retention of said bars in said first position wherein said associated lock pins are housed through said lugs and said free ends of said movable rods; and said support means being channeled to permit longitudinal movement of said handles and said bars to said second position wherein said locking pins are removed from said lugs and said movable rods.

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