March 27, 1962 L. L. DOLLINGER 3,026,548

COMBINATION BOAT FENDER AND LIFE PRESERVER

Filed Jan. 23, 1961

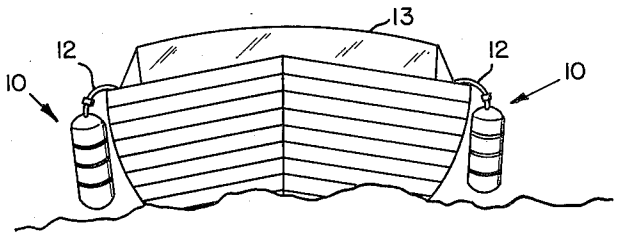


FIG. 1

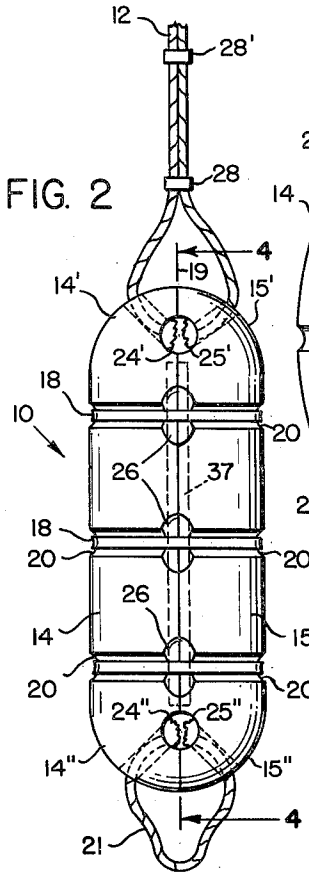


FIG. 2

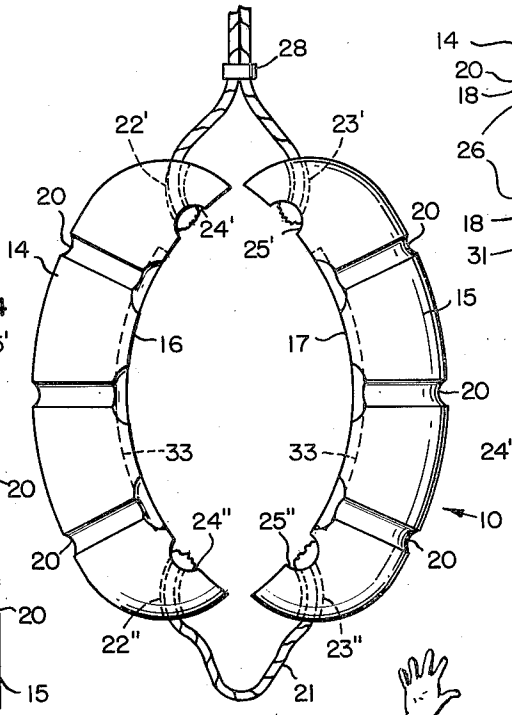


FIG. 5

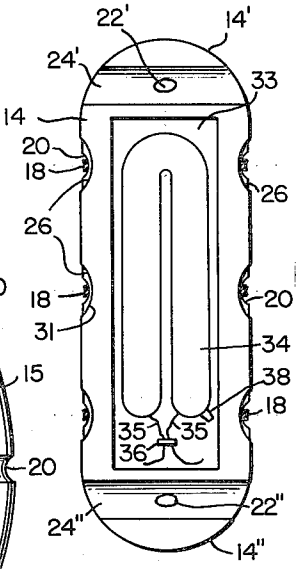


FIG. 4

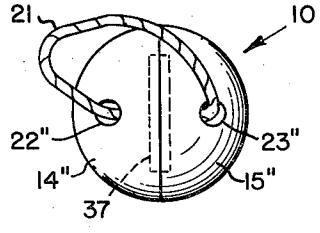


FIG. 3

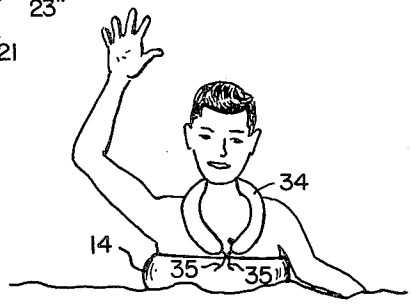


FIG. 6

INVENTOR.
LEWIS L. DOLLINGER
BY B. Kleinberger
Attorney

United States Patent Office 3,026,548 Patented Mar. 27, 1962

3,026,548
COMBINATION BOAT FENDER AND LIFE PRESERVER

Lewis L. Dollinger, Rochester, N.Y., assignor to Dollinger Corporation, Rochester, N.Y., a corporation of New York

Filed Jan. 23, 1961, Ser. No. 84,367
2 Claims. (Cl. 9—312)

This invention relates to a life preserver, and more particularly to the type which is designed to function as a combination boat fender and life preserver.

In my copending application, U.S. Serial No. 834,136, I have disclosed a combined boat fender and life preserver unit which comprises two buoyant members resiliently urged together along a coplanar surface to define a boat fender, and which members are separable to permit the insertion of a person's body therebetween for use as a life preserver.

The aforesaid unit was designed to answer two pressing problems created by the increasing interest in large power boats of the type equipped with cabins having below deck eating and sleeping facilities to accommodate several passengers.

Because of their size, these boats have a large amount of inertia when in the water, thus requiring the use of boat fenders to prevent injury to the hull upon the docking of the boat. One problem then is to provide an economical and compact boat fender which may be suspended from the gunwales of the boat where it will be positioned between the hull and dock to cushion the impact upon docking.

The second problem arises from the need for supplying an adequate quantity of reliable life preservers for passengers. Generally, the conventional ring or doughnut type preservers will be employed on most boats. Since the deck space of cabin type boats is limited, it is not uncommon to find these bulky preservers stored at obscure points below deck; thus creating last minute confusion or panic as the passengers of a damaged boat crowd the hold in search of life preservers.

The above noted copending application alleviates both these problems by providing a combined boat fender and life preserver unit which is of simple and economic construction, and which is sufficiently compact to permit its storage inside the gunwales along the deck of the boat where it is readily accessible.

While applicant's combined boat fender and life preserver unit of the above application answers two basic needs of the cabin type power boats, it has been found desirable to improve upon the life preserving feature of this unit. Since it is very reasonable to expect that in many instances the supply of life preservers on a given boat will prove to be less in number than the people aboard, it may be necessary for a single life preserver of the type disclosed in my copending application to suit the needs of two or more people. To provide for such possibility, I have discovered a way to improve upon the life preserving characteristics of my combined boat fender and life preserver without altering the compactness or efficiency of the unit.

Accordingly, it is an object of this invention to provide an improved combination boat fender and life preserver unit which not only will function as a compact boat fender, but will normally serve to buoy up in the water more than a single person when employed as a life preserver.

It is a further object of this invention to provide an improved combination boat fender and life preserver unit of the type which includes two, separable, buoyant members, and which unit contains supplemental inflatable means for increasing the buoyancy of the unit.

A still further object of this invention is to provide an improved combination boat fender and life preserver unit which includes inflatable means removably secured within recesses formed in the normally abutting faces of the two, separable, buoyant members which define said unit.

Other objects of this invention will become apparent from the specification, the drawing, and the appended claims.

In the drawing where like numerals identify like parts:

FIG. 1 is a front view of a boat floating in water and having suspended from opposite sides thereof combination boat fender and life preserver units made according to one embodiment of this invention;

FIG. 2 is an elevation on an enlarged scale of one of these combined boat fender and life preserver units and illustrating the shape of the unit when in normal use as a boat fender.

FIG. 3 is an end view of this unit;

FIG. 4 is a section through this unit taken along the line 4—4 of FIG. 2 and looking in the direction of the arrows;

FIG. 5 is a view showing the unit of FIG. 2 expanded for use as a life preserver; and

FIG. 6 is a view showing how the unit may be worn as a life preserver.

Referring now to the drawing by numerals of reference, 10 denotes generally the combination boat fender and life preserver units. Normally they are suspended by ropes or lines 12 along the sides of the boat 13 to act as fenders for absorbing the shocks encountered when the boat bumps against a dock or the like when being moored.

These combination boat fender and life preserver units are generally cylindrical in shape. Each comprises two buoyant, half sections or parts 14 and 15, respectively, which are semi-circular in cross section, and which have rounded top and bottom ends 14', 14" and 15', 15", respectively. Each of these sections is made from a resilient, foam rubber material or the like that is covered with a water proofing substance which permits it to remain buoyant. Sections 14 and 15 are fabricated so that they normally tend to be bowed between their respective ends as shown in FIG. 5. The two sections may be duplicates of one another; but they are assembled together so that their inner concave surfaces 16 and 17 confront one another. When employed for a boat fender as shown in FIG. 2, the inside faces 16 and 17 of the two sections abut one another from top to bottom along a plane 19. They are held together in this position by removable rubber bands 18 which are engaged in spaced peripheral grooves 20 formed in the outer surfaces of the two sections when the two sections are in abutting relation, the grooves on one section are aligned with the corresponding grooves on the other section to define axially spaced annular grooves in the outer surface of the fender (see FIG. 2) for receiving and holding the rubber bands 18.

As shown in FIGS. 2 and 4, the grooves 20 are undercut as at 26 at the intersection of the grooves with the inside surfaces 16 and 17 of the sections. When these sections are assembled as shown in FIG. 2, the undercut portions of one section cooperate with those on the other to define notches in the surface of the fender extending transverse to grooves 20 so one may easily slip a finger beneath the rubber bands 18 for removal thereof.

The lower section ends 14" and 15" are loosely connected to one another by a rope 21 or the like, the ends of which are threaded through circular passages 22" and 23" in the ends 14" and 15", respectively, which terminate in transverse grooves 24" and 25" on the inner faces 16 and 17 of the two sections. The ends of rope 21, which engage in the grooves 24", 25", are knotted

so that the rope cannot slip out of the passages 22'' and 23''. Rope 21 thus permits limited separation of the section ends 14'' and 15'' when the sections are separated as shown in FIG. 5 to form a life preserver. Grooves 24'' and 25'' cooperate to define a transverse aperture through the lower end of the fender.

In similar manner, rope 12 for suspending the fender from a boat has its ends threaded through similar passages 22', 23' in the ends 14' and 15', respectively; and the ends of rope 12 terminate in knots which engage in transverse grooves 24', 25' in the surfaces 16 and 17 of the respective sections 14 and 15. Externally of the fender, rope 12 is clamped together by a clip or ring 28 to limit the extent to which ends 14' and 15' may separate from one another during use of the unit as a life preserver. Additional clips or rings (see for instance 28') may be placed along rope 12 at desired spaced positions to permit adjustment of the height at which a fender may be suspended from a boat. The section of rope between adjacent sleeves is separable to receive a hook mounted on the gunwale of the boat so that the fender may be suspended from the boat at different levels.

Each of the sections 14 and 15 has an elongate, rectangular recess 33 in its inside face 16 or 17, respectively. Within each of these recesses is positioned an elongate, inflatable tube 34 which is folded in a convenient manner (for instance in U-shape as shown in FIG. 4) to fit within the recess. The tube ends are fixed in the respective recesses by strings 35 or the like attached to the tube ends and secured by a brad 36 or the like to the respective section. When sections 14 and 15 are secured in congruent, abutting relationship by the rubber bands 18, recesses 33 cooperate to define an elongate compartment or chamber 37 in the interior of the fender 11.

When it is desired to employ the combination boat fender and life preserver unit as a life preserver, one need only remove rubber bands 18 to permit sections 14 and 15 to flex into their normally bowed shape as illustrated in FIG. 5. At such time the inflatable tubes 34 may be removed from their respective recesses 33 merely by withdrawing strings 35 from beneath the holding brads 36, after which tubes 34 may be inflated orally by means of their respective valves 38. Buoyant sections 14 and 15, separated as shown in FIG. 5, may be slipped around a person's body as shown in FIG. 6 to function as the primary life preserver, and one or both of the inflated tubes may be tied by means of their respective strings 35 about a person's neck to function as an auxiliary life preserving means. With the added buoyancy afforded by the auxiliary means 34, it is possible for the average individual employing such unit to assist another less fortunate person or persons; for instance by giving one or both of the auxiliary preserver means 34 to the latter or by permitting the other person or persons to hang on. In any event, the increased buoyancy afforded by tubes 34 should serve the needs of two average people. The auxiliary life preserving means 34 is of particular advantage because it does not interfere with the functioning of the unit as a boat fender.

From the foregoing, it will be apparent that the improved combination boat fender and life preserver always is ready for use in an emergency as a life-preserver, without impairing its function as a boat fender. In addition, the resiliency of the sections 14 and 15 render the unit adaptable to all sizes of persons or animals without danger of their slipping out through the opening between the two halves or sections. Further, when the auxiliary preservers 34 are employed as illustrated in FIG. 6, they serve to maintain a person's head out of the water should he become unconscious.

While sections 14 and 15 have been defined as comprising water proofed foam rubber material, it is apparent that any comparable substance which has the properties of resiliency and buoyancy may be employed instead. Similarly, the bands 18 and inflatable members 34 can be made of other materials than rubber, as for instance, of plastics and the like which afford the properties necessary to perform the desired functions.

While the invention has been described in connection with a specific embodiment thereof, it will be understood that it is capable of further modification, and this application is intended to cover any variations, uses, or adaptations of the invention following, in general, the principles of the invention and including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains and as may be applied to the essential features hereinbefore set forth, and as fall within the scope of the invention or the limits of the appended claims.

Having thus described my invention, what I claim is:

1. A combination boat fender and life preserver comprising two elongate, buoyant parts, each of said parts being flexible and being bowed along its length to have a normally concave inside surface, resilient means encompassing both said parts and urging the normally concave surfaces thereof into coplanar abutting relationship to provide an elongate, compact boat fender, retaining means at opposite ends of said fender loosely connecting said buoyant parts, said resilient means being removable from said fender to permit said parts to separate and flex into their bow shaped form, and said retaining means permitting limited separation of said buoyant parts, whereby the normally concave surfaces of the latter cooperate to define an opening into which a person's body may be inserted so that said parts act as a life preserver.

2. A combination boat fender and life preserver as defined in claim 1 where each of said normally concave surfaces has a recess therein, said recesses cooperating when said surfaces are placed in coplanar abutting relationship to define a compartment for housing auxiliary life preserver means.

References Cited in the file of this patent

UNITED STATES PATENTS

784,933	Fisch	Mar. 14, 1905
815,394	Wikstrom	Mar. 20, 1906
1,156,749	Brown	Oct. 12, 1915
2,373,994	Brandsten	Apr. 17, 1945
2,546,396	Jenkins	Mar. 27, 1951
2,689,357	Hornback	Sept. 21, 1954
2,753,829	Agra	July 10, 1956