Aug. 7, 1956 D. G. WILTSE 2,757,629

BOAT STABILIZERS

Filed Nov. 6, 1953

Fig. 1

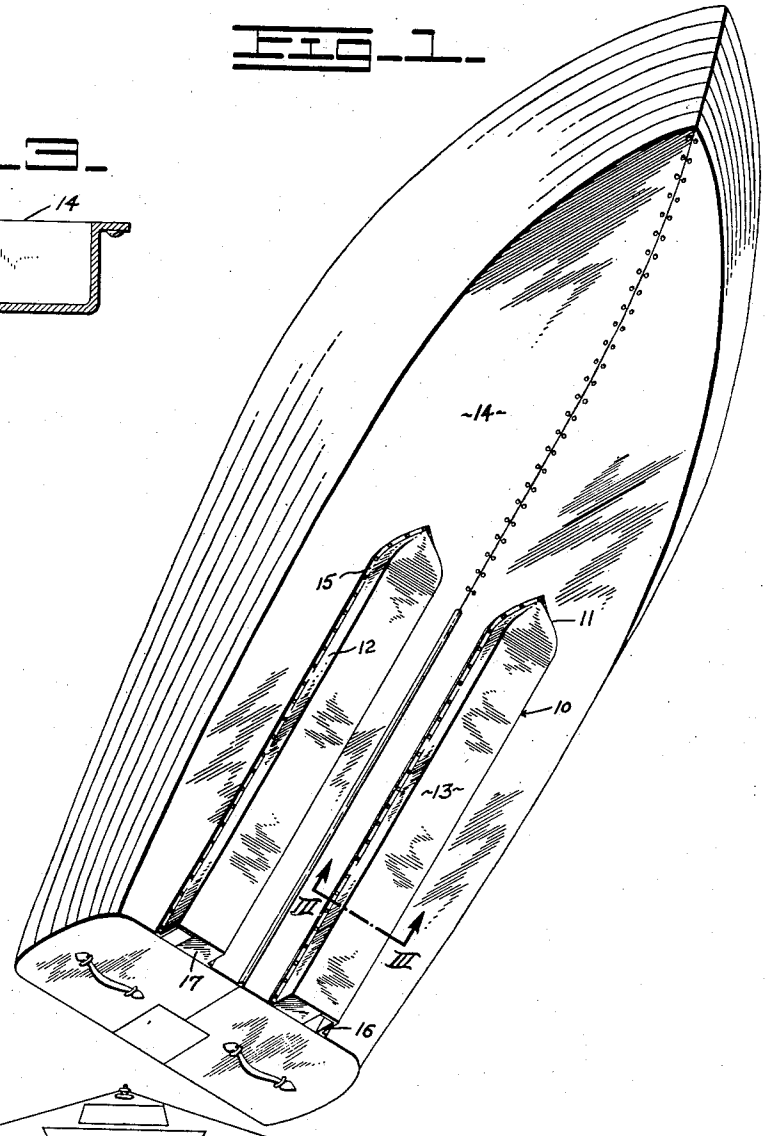


Fig. 3

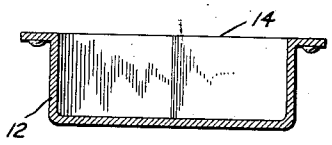
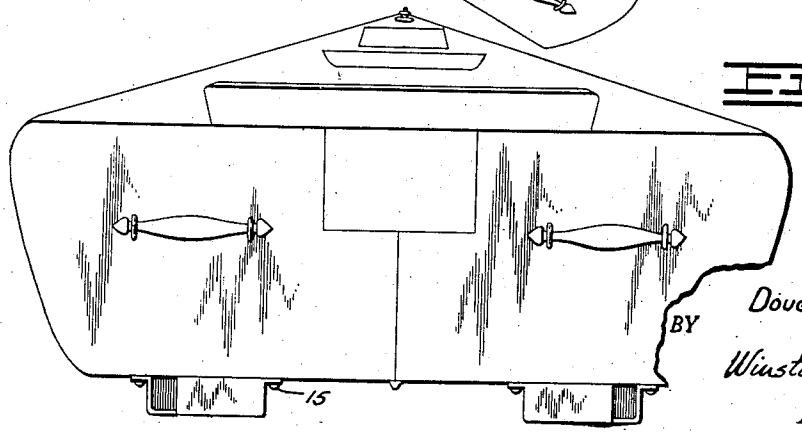


Fig. 2



INVENTOR.
DOUGLAS G. WILTSE
BY
Winston E. Miller
ATTORNEY.

United States Patent Office

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BOAT STABILIZERS

Douglas G. Wiltse, St. Charles, Mich., assignor to Harwill Inc., St. Charles, Mich., a corporation of Michigan

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This invention relates generally to means for effecting greater stability in surface water-crafts. More particularly it relates to a type of stabilizers which are primarily adapted for the purpose of maintaining water-craft on an even keel while it is moving slowly or lying dead in the water.

While the generic inventive concept disclosed in the present application is susceptible of other uses, the specific embodiment of the invention illustrated and described herein is primarily adapted for use in connection with light boats; viz, aluminum, magnesium, plastic, wooden, etc. for the purpose of increasing the inertia of the boat and thereby improving its stability.

It is a general object of the present invention to provide apparatus of this general class which will be relatively simple in construction and which will effectively serve to reduce or obviate the unsteady tendency of light boats, as for example when a passenger should move or shift his position while the boat is underway at slow speeds or stopped.

It is a still further object of the present invention to provide a construction of this general type which is convenient and compact in form and which may easily and conveniently be installed, in order that it may be used with any one of a number of different types of light boats. The present invention contemplates the provision of means whereby the stabilizers may be mounted on the underside of a boat whereby to serve as auxiliary keels or linear stiffeners. As well, the present invention also contemplates the provision of means whereby the stabilizers may be effectively used in a manner approximating water-skis, and particularly whereby the under surface of the stabilizers act as a planing surface to produce a smoother and faster ride through the water.

Still further, the present invention contemplates the provision of a relatively novel and simple construction which may be conveniently removed from the boat for purposes of adjustment and repair and which in its completed form will be extremely compact and convenient in operation.

As will be understood by those skilled in the art, a light boat has many advantages but one outstanding disadvantage—its lack of stability. The purpose of my apparatus is to enable the boat to make use of a limited amount of water whereby weight of the latter can act as a ballast or counter-balance force. As discussed above, when a passenger shifts his position while a light boat is underway at slow speeds or stopped the boat is prone to tip. By harnessing the weight of water in partially opened tanks this tendency is largely overcome since the weight of the ballast on one side of the boat acts as a

counter-balance for a like shift of weight to the opposite side of the boat.

Therefore, another object of the present invention is the provision of means whereby a light boat may have all of the advantages of stability, etc. of a heavier boat and yet none of its disadvantages, as for example: slow acceleration and speed while underway. My invention provides for rapid drainage of water from the stabilizers at faster speeds and instantaneous filling of water at slower speeds and when the boat lies dead in the water.

Many other and further objects and advantages of the present invention will become apparent from the following specification when considered in connection with the accompanying drawings forming a part thereof.

In the drawings:

Figure 1 is a view in perspective showing the underside of a boat with a stabilizer mounted on both sides thereof;

Figure 2 is an enlarged rear elevation view of a boat showing stabilizers mounted thereon, and

Figure 3 is an enlarged transverse sectional view taken on the line 3—3 of Figure 1.

With more particular reference to the drawings, the specific embodiment of the invention disclosed therein comprises in general a casing that is generally denoted by the numeral **10**, which is preferably of elongated rectangular form and permanently closed at the forward end **11** by means of rounding and sealing of the sides **12** and the bottom **13** by any conventional means. While the casings as a whole may be temporarily attached to the underside **14** by any convenient means, it is preferable to rivet or weld the flanges **15** and thereby serve to accomplish a permanent mounting for the casings. The casings are partially closed at the rearward end **16** by means of suitable cover plates **17** which may be increased or decreased in width according to the desire of the user. It is believed that the stabilizers reach the highest peak of efficiency when the cover plate encloses substantially three-quarters of the opening at the rearward end.

The operation of the stabilizers is substantially as follows: When the boat is placed in water and equipped with oars or motor power, water immediately enters the casings and acts as ballast. The same follows as the boat moves at slow speeds since the cover plates tend to substantially restrain the water from draining out. It is during this period—from lack of forward boat movement to slow speeds—that the water in the casings serves to increase inertia and stability; whereas, on achieving a faster speed all the water in the casings immediately drains out and thereby allows for the increase in speed of light boats. At this time the forward momentum serves to maintain the boat on an even keel. Likewise, upon the boat's speed decreasing the water reenters the casings and the boat again becomes substantially stable.

It will be appreciated from the foregoing that the specific embodiment of the invention illustrated in the drawings and described above is merely representative of one of many forms which the inventive concept defined in the subjoined claims may take. Many other and further modifications thereof will be apparent to those skilled in the art.

I claim as my invention:

1. In a boat stabilizer adapted for engagement with the underside of a boat, an elongated substantially rectangular casing, a closure in the forward end of said casing,

a partial closure in the rearward end of said casing for temporarily confining water in said casing when said casing is fastened to the underside of said boat.

2. A boat stabilizer adapted for engagement with the underside of a boat comprising a casing having an outwardly flaring flange integral with and transversely disposed with respect to said casing for attaching to the underside of said boat, said casing being sealed at its forward end, a cover plate substantially covering the rearward end of said casing and adapted to temporarily confine water in said casing when said casing is fastened to the underside of said boat.

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