May 28, 1929. E. J. BLOOD 1,715,028

STABILIZER

Filed May 10, 1926

Fig. 1.

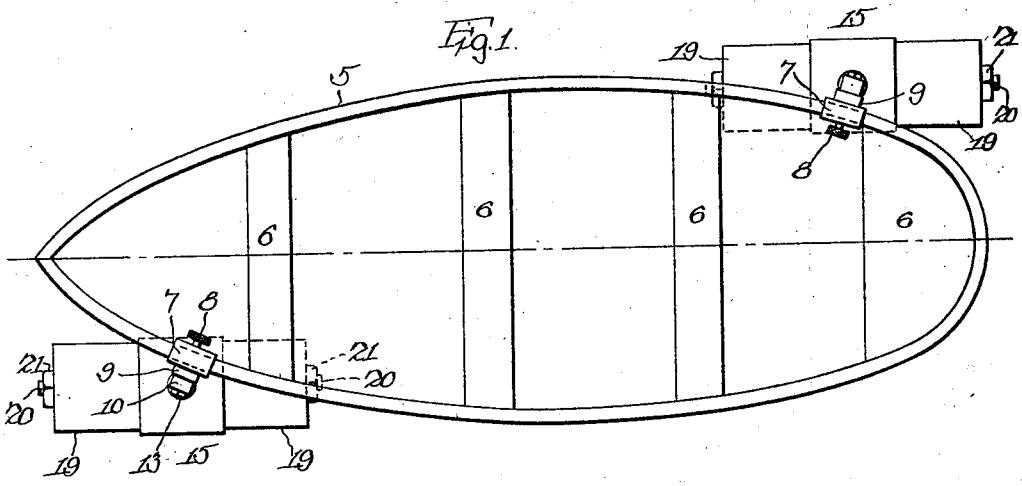
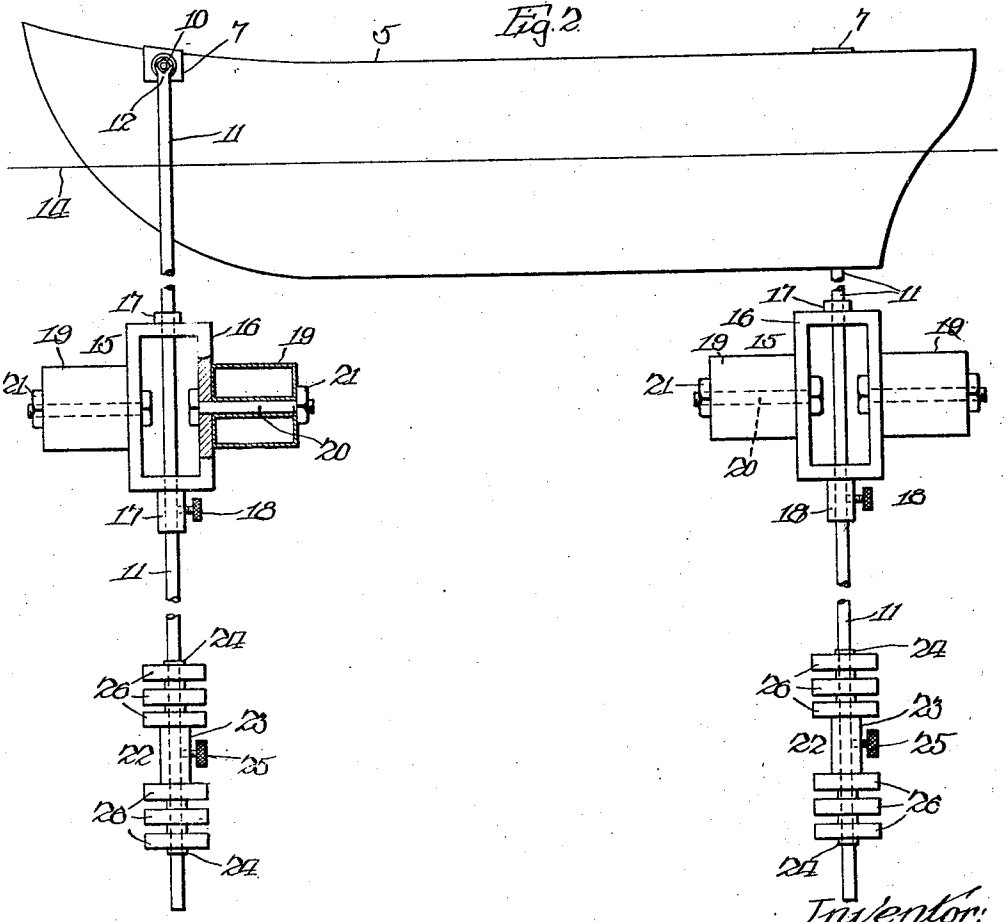


Fig. 2.



Inventor:
Edwin J. Blood.
By Chas. A. Tillman
Atty.

Patented May 28, 1929. 1,715,028

UNITED STATES PATENT OFFICE.

EDWIN J. BLOOD, OF CHICAGO, ILLINOIS.

STABILIZER.

Application filed May 10, 1926. Serial No. 107,898.

This invention relates to improved means, or to an improved apparatus to be used in conjunction with liquid or gas, for utilizing the buoyancy of the latter for the purpose of accomplishing numerous desired results.

In the present embodiment of the invention, I have shown it as being associated with an ordinary row-boat for the purpose of stabilizing the same to a great extent, or to prevent the boat rocking excessively when in a fairly stiff breeze, but I desire it to be distinctly understood, that the invention is not limited in its application to a boat, as it may be employed in connection with other devices and for accomplishing other desired results, without a departure from the spirit of the invention.

The principal object of the invention is, to furnish an apparatus having a buoyant body so arranged with respect to the apparatus, that the force of its buoyancy may be applied or brought to bear upon some particular part of an object, for the purpose of accomplishing desired results.

Another object of the invention is, to provide a device by which the power or upward thrust or buoyant force of a body can be easily adjusted and applied and brought to bear upon some particular portion of the device, in order to make the apparatus perform its function more perfectly.

Other objects and advantages of the invention will be disclosed in the accompanying drawing, which serves to illustrate an embodiment of which the invention is susceptible, it being understood that changes and modifications may be resorted to, without a departure from the essence of the invention, so long as they fall within the scope of the appended claims.

In the drawing:—

Fig. 1, is a plan view of a row-boat showing a stabilizer constructed according to the present example of the invention and

Fig. 2, is a side view thereof, showing a portion of one of the buoyant or floating bodies in section.

Like numerals of reference designate similar parts throughout the different views of the drawing.

The reference numeral 5, designates, as a whole, an ordinary row-boat provided with transversely disposed and spaced seats 6, for the occupants thereof.

On opposite sides of the boat, near its prow and near its stern is detachably mounted a clamping bracket 7, each of which is provided with a screw 8, on its inner surface, for holding its bracket 7, in detachable connection with the side of the boat on which it is mounted. As will be observed in Fig. 1, of the drawing, each of the brackets 7, has an outwardly extended arm or portion 9, provided with a rounded reduced portion extended outwardly from the portion 9. This rounded reduced portion, or stub shaft 10, forms a bearing for a part of the device which is mounted on each of the said brackets.

Pivotally mounted on each of the bearing portions 10, of each of the brackets 7, is the upper portion of a depending rod 11, which portion is in the form of a ring 12, fitted loosely around the part 10, and each of said rings 12, are prevented dislocation by means of a screw 13, engaging the outer end of each of the parts 10. Thus it will be seen and understood, that the rods 11, will have pivotal movements with respect to their bearings. These rods 11, may be of any suitable length so as to depend a considerable distance below the surface line 14, of the water in which the boat floats.

Below the boat 5, each of the rods 11 is provided with an adjustable float or buoyant body, designated as a whole by the numeral 15, each of which may be of any preferred construction, but in the present instance, is shown as having a rectangular frame 16, provided at each of its ends with vertically disposed apertured sleeves 17, the lowermost one of each frame, being provided with a set screw 18, to allow of the adjustability of the frames 16, as is apparent. It will be understood that the rods 11, extend through the apertures of the sleeves 17, and 18, as well as through vertically disposed apertures in the upper and lower portions of the frames 16, each of which frames has secured to each of its sides a hollow member 19, which provide floats and are detachably connected to the frames 16, by bolts 20, extended centrally through the members 19, and nuts 21, engaging said bolts.

Below each of the buoyant bodies 15, and mounted on each of the rods 11, is an adjustable weight, designated as a whole by the numeral 22, each of which comprises a hollow sleeve 23, having upper and lower reduced tubular portions 24, fitting around said rods. Each of the sleeves 23, is provided with a set screw 25, by means of which

it and its reduced portions may be slid upwardly and downwardly on its rod, and then fixed in its adjusted position by screwing up the set screw 25, thereof. Mounted on the reduced portions 24, of the sleeves 23, are a plurality of centrally apertured disks 26, which may be held in position by any desired means, yet so that the number of each group or disks of weights may be reduced or increased.

From the foregoing and by reference to the drawing it will be readily understood and clearly seen, that by my improvements, the buoyant bodies or floats 15, will be held below the surface of the liquid upon which the boat floats by means of the weights 22, which may be adjusted on their respective rods in an upwardly or downwardly direction to suit the circumstances, for it is apparent that the adjusting of the weights 22, at a greater or less distance from the buoyant bodies or floats 15, results in a change of the net buoyancy brought to bear on the upper bearings. It will also be understood, that by my improvements, when applied to a row-boat, that the weights and floats being located in still water, and that by reason of the buoyancy of the latter, the boat, being located in ruffled or rough water, will be prevented rocking excessively, or will be stabilized.

By adjusting the weights 22, downwardly, it will be understood that some of the disks or weights 26, should be removed as it requires a dismount of weight when the same is adjusted at a further distance from the buoyant bodies or floats than if the said weights were located nearer the latter.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:—

1. Means for preventing the excessive rocking of a boat upon the surface of a liquid having waves thereon, which comprises attachments including clamps fastened to the boat at points near the bow and stern thereof and consisting of rods vertically disposed and submerged at their lower extremities in the water and carrying weights at the lower extremities of said rods, and normally buoyant bodies adjustably connected to said rods at a point between said weights and said boat.

2. Means for preventing the excessive rocking of a boat upon the surface of a liquid having waves thereon which comprises an attachment including clamps on one side of said boat near the bow thereof and on the other side of said boat near the stern thereof comprising rods pivotally attached to said clamps, weights adjustably mounted on said rods, and buoyant members likewise adjustably mounted on said rods.

3. Means for preventing the excessive rocking of a boat upon the surface of a liquid having waves thereon which comprises an attachment including clamps on one side of said boat near the bow thereof and on the other side of said boat near the stern thereof comprising rods pivotally attached to said clamps, weights adjustably mounted on said rods, and buoyant members likewise adjustably mounted on said rods, said buoyant members being situated between said weights and said clamps.

EDWIN J. BLOOD.