April 9, 1929. M. CARLONI 1,708,784

SHIP SAFETY DEVICE

Filed Feb. 28, 1928

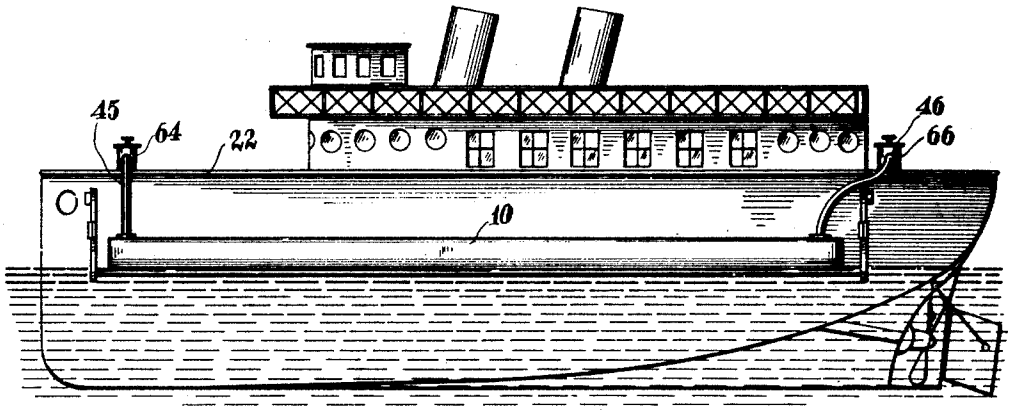


Fig. 1.

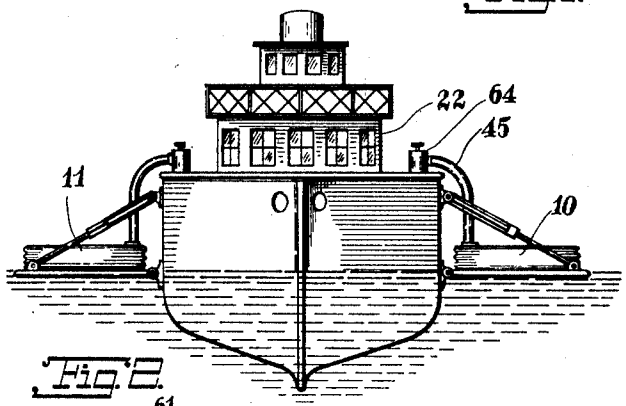


Fig. 2.

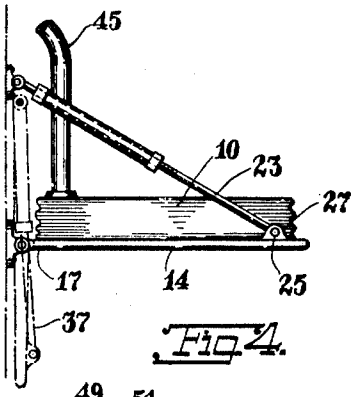


Fig. 4.

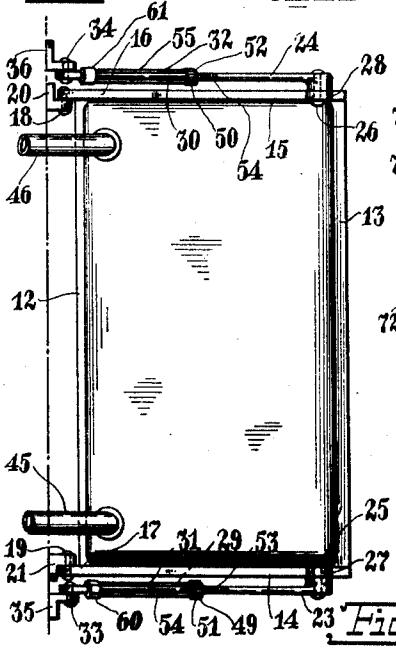


Fig. 3.

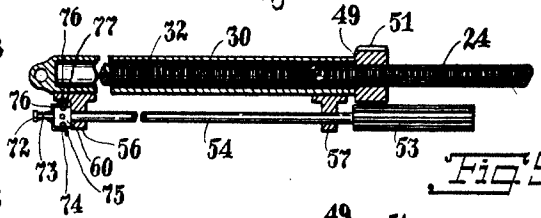


Fig. 5.

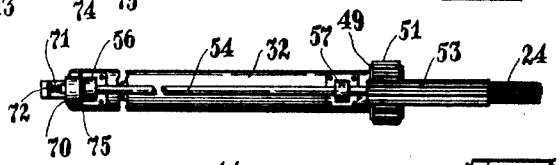


Fig. 6.

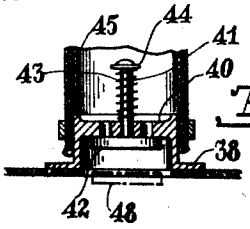


Fig. 7.

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UNITED STATES PATENT OFFICE.

MARIANO CARLONI, OF CONCORD, NEW YORK.

SHIP SAFETY DEVICE.

Application filed February 28, 1928. Serial No. 257,591.

This invention relates to a new and useful ship safety device especially adapted for the purpose of keeping a ship afloat during extreme heavy or rough seas and for the purpose of keeping a foundered ship afloat.

The object of the invention is to provide a pair of buoyant inflatable members adjustably secured to and extended from the sides of the ship and a means of inflation in combination with a means of rigidly holding the said buoyant members in a horizontally or somewhat downwardly extended position when in use.

A further object of the invention is to provide a device of the class described of novel construction and arrangement of parts hereinafter more fully described, claimed and illustrated in the accompanying drawing.

Fig. 1 is a side elevational view of a ship equipped with my improved device.

Fig. 2 is a front elevational view thereof.

Fig. 3 is an enlarged top plan view of one of the buoyant members as embodied in my improved device.

Fig. 4 is a front elevational view thereof.

Fig. 5 is a fragmentary longitudinal sectional view of the angular adjusting mechanism as embodied in my improved device.

Fig. 6 is a top plan view thereof.

Fig. 7 is a vertical central sectional view of the air inlet valve as embodied in my improved device.

As here embodied my improved device comprises a pair of buoyant members 10 and 11, of rectangular box shape construction, constructed preferably of heavy waterproof duck canvas or the like. The buoyant members are secured at their lower form edges to frameworks, consisting of longitudinal struts 12 and 13 and transverse struts 14 and 15. The transverse struts are provided with extended portions 16 and 17, respectively hinged at their extremities, as at 18 and 19, respectively by pins or the like carried in the brackets 20 and 21. The brackets 20 and 21 are secured to the sides of the ship 22, in proximity to the water line.

A pair of supports comprising rods 23 and 24 are hinged at one of their extremities as at 25 and 26, by pins or the like, carried in the lug elements 27 and 28 of the transverse members 14 and 15, at or near the extended extremities of the said transverse members. The extended portions 29 and 30 of the rods 23 and 24 are adapted to slidably engage in the tubular members 31 and 32, hinged at their opposite extremities as at 33 and 34 by pins or the like carried in the brackets 35 and 36 secured to the sides of the said ship in proximity to the deck thereof.

The above described construction is such as will permit the said buoyant members when not inflated to hang vertically downwardly from the sides of the ship, as designated by the reference numeral 37.

A pair of flanged members 38 and 39 are secured to the top positions of the said buoyant members, in proximity to the opposite ends thereof, and are provided with closed ends 40 having formed therein a central aperture adapted to slidably receive the valve stem 41, which is provided with an enlarged head 42 of disc shape construction normally held in a closed position in engagement with the inner surface of the closed ends of the flanged members by the expansion spring 43 coaxial on the stem 41 and retained thereon by means of the collar 44 secured to the extremity of the said stem. The above described construction is such as will provide air valves adapted to permit air pumped through the flexible tubular members 45 and 46, secured to the flanged members 38 and 39 to be admitted to the said buoyant members, as designated by the indicating arrows 47, the said air forcing the valve open as designated by the reference numeral 48, so as to permit the said air to enter the buoyant members, for the purpose of permitting the said buoyant members to be inflated with air under pressure as a means of keeping the said ship afloat during rough or heavy seas, or in event the said ship should founder. It is obvious that the said buoyant members when inflated will hinge outwardly from the sides of the ship.

Collars 49 and 50 are threadedly mounted on the rods 23 and 24 having formed thereon at their peripheries, gear teeth 51 and 52 adapted to mesh with the pinions 53 and 54, secured to the extended extremities of the rods 54 and 55 rotatively mounted in the brackets 56, 57, 58 and 59, secured to the tubular members 31 and 32. The rods 54 and 55 are provided with enlarged extremities 60 and 61, having formed therein radial apertures 62 and 63, adapted to receive a rod not shown in the accompanying drawing, for the purpose of manually rotating the rods 54 and 55. The above described construction is such as will permit the collars 49 and 50, to be

positioned on the rods 24 and 25, respectively, so as to securely hold the buoyant members when inflated in a horizontally or slightly angularly extended position for the sides of the said ship, for the purpose as above set forth.

The tubular members 45 and 46 are extended upwardly from the flange members and are secured respectively, to air pumps 64 and 65, respectively secured to the forward and aft deck of the ship, or to any suitable convenient part thereof. The said air pumps are of the ordinary manually operated type. The above described construction is such as will permit air to be pumped into the said buoyant members for the purpose as hereinafter set forth.

I have also shown enclosing caps 20, adapted to cover the enlarged extremities 60 and 61 of the rods 54 and 55 and normally held in engagement over the said enlarged extremities by means of the expansion springs 71, co-axial on the pin 73, and positioned under the enlarged head of the said pin which is secured to and extended from the said enlarged head. The enclosing members 70 have affixed thereto suitable felt washers 74, adapted to prevent moisture particularly from salt water from corroding the said enlarged extremities and the openings formed therein, which provide capital opportunities for such corrosion. The enclosing members are provided with a flanged edge 75, for the purpose of permitting the above mentioned bar used to rotate the rods 54 and 55, to be used to slidably open the said enclosing members, rendering access to the openings formed therein so as to engage the said bar, as above set forth. I have also shown a clip 76 secured to and extended from the enclosing member 70 and adapted to engage in a notch formed in the brackets 51, so as to coact in the normally holding of the enclosing member in an engaged position over the said enlarged extremities of the said rods 54 and 55.

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

1. In a device of the class described, a transverse member for supporting an inflatable buoyant member and arranged for being pivotally supported on the side of a ship on its inner edge, a rod pivotally mounted on the transverse member near its outer edge, a tubular member engaged on the free end of the rod and arranged for being pivotally mounted at its outer end on the side of a ship, a collar threadedly mounted on the said rod and provided with gear teeth on its periphery, a pinion meshing with the said gear teeth and fixed on a second rod rotatively mounted on the tubular member, and a means for normally holding the second rod against rotation.

2. In a device of the class described, a transverse member for supporting an inflatable buoyant member and arranged for being pivotally supported on the side of a ship on its inner edge, a rod pivotally mounted on the transverse member near its outer edge, a tubular member engaged on the free end of the rod and arranged for being pivotally mounted at its outer end on the side of a ship, a collar threadedly mounted on the said rod and provided with gear teeth on its periphery, a pinion meshing with the said gear teeth and fixed on a second rod rotatively mounted on the tubular member, and a means for normally holding the second rod against rotation, consisting of an integral enlarged extremity with holes, on the said second rod, and a cap normally covering said enlarged extremity.

In testimony whereof I have affixed my signature.

MARIANO CARLONI.