Dec. 4, 1956 J. L. DE PERSIA 2,772,648

AUTOMATIC BOAT BAILERS

Filed Jan. 7, 1955

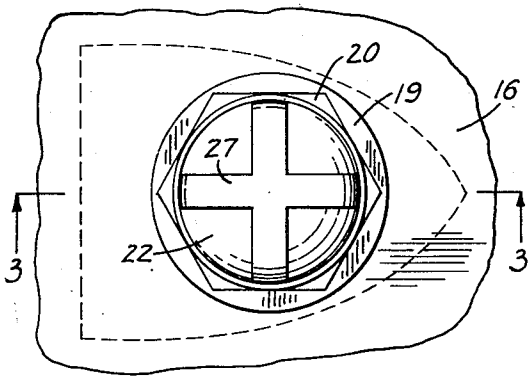


FIG. 1

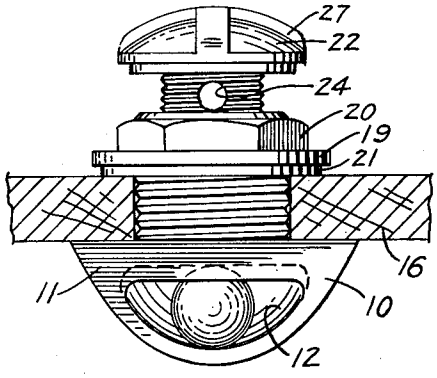


FIG. 2

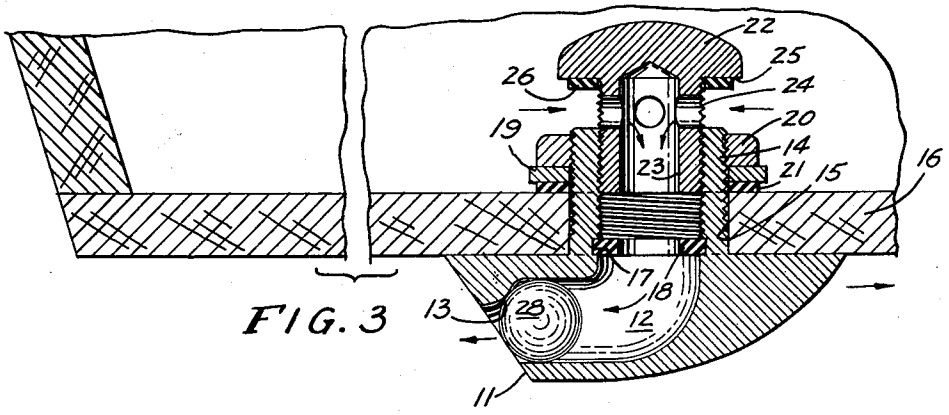


FIG. 3

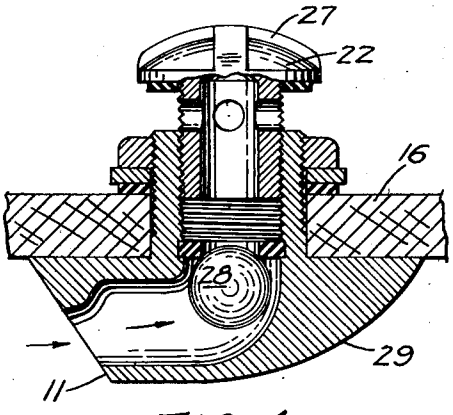


FIG. 4

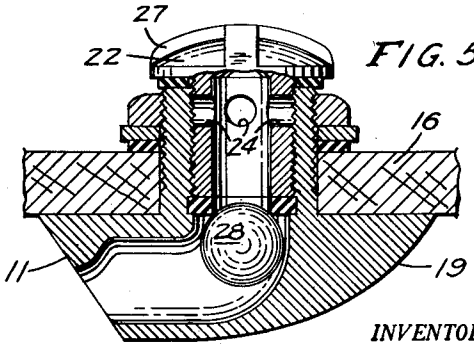


FIG. 5

INVENTOR.
JOHN L. DE PERSIA
BY

McMorrow, Berman & Davidson
ATTORNEYS

United States Patent Office 2,772,648 Patented Dec. 4, 1956

2,772,648

AUTOMATIC BOAT BAILERS

John L. De Persia, Grand Haven, Mich.

Application January 7, 1955, Serial No. 480,496

2 Claims. (Cl. 114—185)

The present invention relates to automatic boat bailers for use in speed boats, row boats, and the like, which operate to suck the water from the boat bilge by means of suction created by movement of the boat through the water.

The primary object of the present invention is to provide a boat bailer which will automatically suck water out of the boat bilge as the boat moves through the water, and one which can also be used to drain water from rowboats, canoes, or the like, when the latter are beached.

Another object of the present invention is to provide an automatic boat bailer of neat appearance and one having few parts, readily assembled, and readily installed in the bottom of the boat.

Another object of the present invention is to provide a boat bailer which may be installed by a person having little experience and little skill, one requiring only ordinary tools for its installation in the bottom of the boat.

A still further object of the present invention is to provide an automatic boat bailer having its inlet ports relatively close to the bottom surface of the boat for the purpose of sucking as much water as possible out of the boat bilge.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is a top-plan view of the device as installed in the bottom of the boat,

Figure 2 is a rear view and elevation of the device of the present invention as installed in the boat bottom,

Figure 3 is a side view and cross-section on line 3—3 of Figure 1,

Figure 4 is a side-view in cross-section showing the device in open condition with the ball preventing passage of water upwardly into the boat, and

Figure 5 is a view in cross-section showing the valve in closed condition.

Referring in greater detail to the drawing in which like numerals indicate like parts throughout the several views, the invention comprises a housing **10** having a rounded nose portion **29** and rear face **11** sloping upwardly and outwardly from the bottom of the housing to the top thereof, there being a passage **12** formed in said housing extending inwardly from the top of the housing to and out of the sloping rear face **11**.

Circumposed about the end of the passage **12** opening through the top of the housing and integrally carried by the housing **10** is an upstanding pipe section **14** which is inserted through a hole **15** in the bottom of the boat, indicated by the reference numeral **16**.

The pipe section **14** is formed with an annular recess **17** in which is seated a circular valve seat **18**, which extends transversely across the pipe section **14** and partially bridges the end of the passage **12** opening through the top of the housing **10**.

A washer **19** is provided on which seats the nut **20** to

compress the gasket **21** against the boat bottom to seal the device in place.

A plug **22** is provided with a bore **23** extending from its lower end upwardly to a point adjacent the upper end of the plug. Inlet ports **24** are provided each side of the plug **22** adjacent its upper end, which is enlarged and provided with a shoulder **25** on which seats a second gasket **26**.

The upper end of the plug **22** is provided with the upstanding ribs **27** in the form of a cross, by means of which the plug is gripped as it is threadedly moved into the pipe section **14** from a position in which the ports **24** are open and in communication with the interior of the boat to a position in which the ports are closed. As shown in Figure 3, water is being sucked from the interior of the boat and flowing in the direction indicated by the arrows in the passage outwardly on each side of the ball **28**, the boat travelling in the direction of the arrow. The ball **28** is freely floatable within the passage and is movable under pressure of the water, as shown in Figure 4, to seat itself upon the valve seat **17** to prevent passage of water upwardly into the boat.

As seen in Figure 5, the port may be screwed down sufficiently so as to close the ports **24** and to seat the gasket **26** upon the upper end of the pipe section **14**, preventing water from entering or leaving the boat.

With the housing **10** positioned on the bottom of the boat with its rear face **11** facing the stern of the boat and the rounded nose portion **29** facing the prow of the boat, water flowing over the housing **10**, as the boat moves through the water, will create a suction at the end of the passage **12**, sucking water through the passage from the port **24**.

For rowboats and canoes, the device is used for draining water from the boat, after the boats have been lifted from the water.

While only a single embodiment of the present invention has been shown and described, it is believed that other embodiments may be made and practiced within the scope of the appended claims without departing from the spirit of the invention.

What is claimed is:

1. An automatic boat bailer comprising a housing provided with an upstanding pipe section adapted to be inserted upwardly through a hole in a boat bottom, said housing having a rounded nose portion and rear face sloping upwardly and outwardly from the bottom to the top thereof, there being a passage formed in said housing extending inwardly from the portion of the top enclosed by said pipe section to and out of the sloping rear face, means securing said housing exteriorly of and on the boat bottom with said pipe section received in the hole provided and with said face facing the stern of the boat, said pipe section being formed with an annular recess at the lower end thereof, a valve seat extending transversely across said pipe section and partially bridging the end of the passage opening through the top of the housing and having its periphery received in said recess, a freely floatable ball in said passage seatable on said valve seat to prevent passage of water upwardly through said pipe section, and a plug threadedly engaged in said pipe section at the upper end thereof, said plug being provided with a bore extending upwardly from its lower end and terminating adjacent the upper end, and ports in said plug adjacent the upper end connecting in communication with said bore, said plug being movable in said pipe section from a position with said inlet ports open and in communication with the interior of the boat to a position closing said ports.

2. An automatic boat bailer comprising a housing provided with an upstanding pipe section adapted to be

inserted upwardly through a hole in a boat bottom, said housing having a rounded nose portion and rear face sloping upwardly and outwardly from the bottom to the top thereof, there being a passage formed in said housing extending inwardly from the portion of the top enclosed by said pipe section to and out of the sloping rear face, means securing said housing exteriorly of and on the boat bottom with said pipe section received in the hole provided and with said face facing the stern of the boat, said pipe section being formed with an annular recess at the lower end thereof, a valve seat extending transversely across said pipe section and partially bridging the end of the passage opening through the top of the housing and having its periphery received in said recess, a freely floatable ball in said passage seatable on said valve seat to prevent passage of water upwrdly through said pipe section, and a plug threadedly engaged in said pipe section at the upper end thereof, said plug being provided with a bore extending upwardly from its lower end and terminating adjacent the upper end, and ports in said plug adjacent the upper end connecting in communication with said bore, said plug being movable in said pipe section from a position with said inlet ports open and in communication with the interior of the boat to a position closing said ports, and means in said housing adjacent said face restricting the movement of said ball out of said passage.

References Cited in the file of this patent

UNITED STATES PATENTS

1,602,093	Andrew	Oct. 5, 1926

FOREIGN PATENTS

91,918	Sweden	Apr. 1, 1938