July 12, 1932. E. B. GREEAR 1,866,643

BOAT DRAIN VALVE

Filed Jan. 14. 1932

Fig. 1.

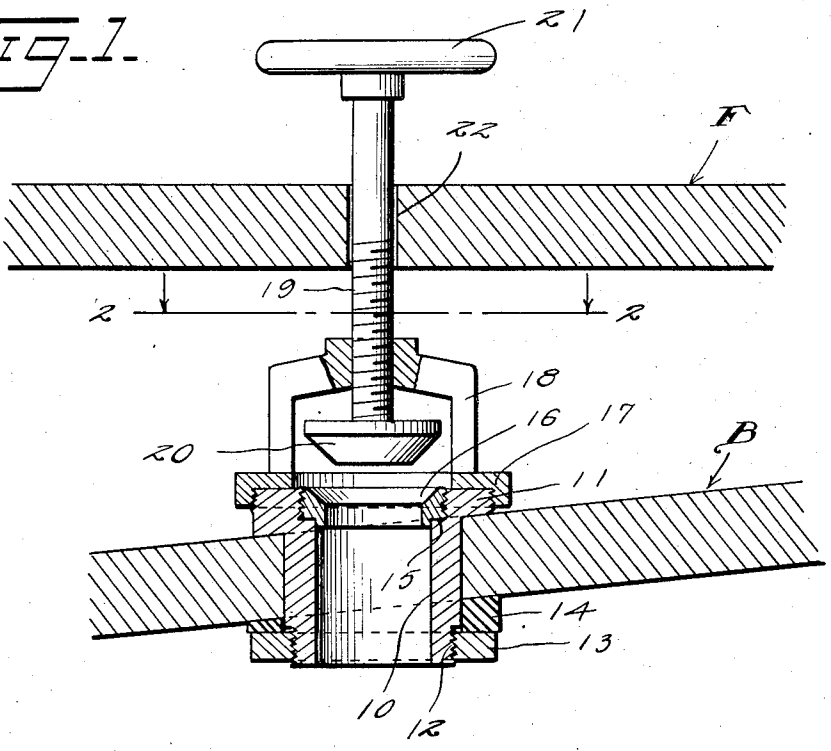
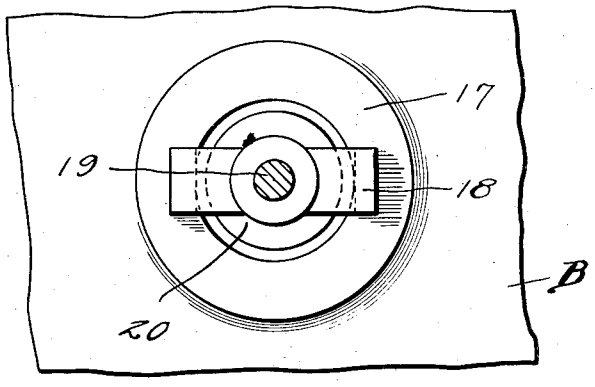


Fig. 2.



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UNITED STATES PATENT OFFICE

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BOAT DRAIN VALVE

Application filed January 14, 1932. Serial No. 586,562.

This invention relates to draining devices, and more particularly to a draining valve for use in a boat to drain the bilge through the bottom of the boat.

An object of this invention is to provide a draining valve which can be mounted at any desired point in the bottom of the boat so that the draining plug which is ordinarily used can be eliminated, thereby providing means for readily draining the water or bilge from the bottom of the boat when it is lifted out of the water and providing means whereby the boat will not be sunk when replaced in the water due to the loss of the draining plug as is frequently the case.

Another object of this invention is to provide an exceedingly simple draining valve construction which can be mounted at the desired point in the bottom of the boat and which is provided with means extending through the floor for operation of the valve.

The above and various other objects and advantages of this invention will in part be described in and in part be understood from the following detailed description of the present preferred embodiment, the same being illustrated in the accompanying drawing, wherein:—

Figure 1 is a vertical section partly in detail taken through the longitudinal center of a device constructed according to the preferred embodiment of this invention and showing the device mounted in a boat which is shown in fragmentary sectional form;

Figure 2 is a sectional view partly in detail taken on the line 2—2 of Figure 1.

Referring to the drawing wherein like numerals of reference designate corresponding parts throughout the several views, the letter B designates generally the bottom of a boat and the letter F designates a floor disposed upwardly from the bottom B. A sleeve or cylindrical member 10 is mounted in a vertically disposed opening in the bottom B and has an outstanding flange 11 at the upper end thereof, this flange 11 being of tapering construction so that the upper surface thereof will be substantially horizontal. The bottom portion of the sleeve 10 is provided with peripheral threads 12 and a lock nut 13 is threadably engaged with the threads 12, and a washer 14 is interposed between the lock nut 13 and the bottom of the boat so as to prevent the passage of water between the periphery of the sleeve 10 and the opening through the bottom of the boat. This washer 14 is of tapering construction so that the upper surface thereof will engage flatly against the bottom of the boat and the lower surface against the top of the nut 13.

The upper portion of the sleeve or draining member 10 is provided with a shoulder 15 and a valve seat 16 is engaged with the shoulder 15 and is threadably secured to the upper end of this draining sleeve 10. Through the provision of a removable seat 16, when this seat becomes worn, a new seat can be readily mounted in the upper end of the draining sleeve 10. The periphery of the flange 11 is provided with threads for threadably receiving an apertured cap or ring 17 which has a cage 18 formed therewith, and a valve stem 19 is threadably mounted in this cage 18 and is provided at the lower end thereof with a valve head or member 20 for engagement with the valve seat 16.

A hand wheel or operating member 21 is secured at the upper end of the stem 19 and this stem 19 projects through an opening 22 in the floor F so that the hand wheel 21 will be disposed within the body of the boat for operation at all times.

In the use of this device, the bottom B of the boat is drilled for receiving the draining member 10 which is secured permanently to the bottom B by means of the nut member 10. The washer 14 prevents the passage of water between the periphery of the draining member 10 and the hole provided in the bottom B for receiving this draining member. When the boat is taken out of the water, the hand wheel 21 is turned so as to unseat the valve member 20 and thereby permit the passage of water outwardly through this draining member 10. When the boat is replaced in the water, the hand wheel 21 is turned so as to carry the valve member 20 into closed position and thereby prevent the water from entering the boat through the draining member 10.

It is, of course, understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:—

1. A draining means as set forth, comprising a tubular member having a flanged upper end portion, said flange being of tapering construction, a nut threadably engaging the opposite end of the tubular member for securing the member in an opening provided in the bottom of a boat, a gasket interposed between the nut and the bottom of the boat, a valve seat removably mounted in the tubular member, a cage removably mounted on the member and extending upwardly therefrom, and a valve member supported by said cage for movement into open or closed position.

2. A draining means as set forth, comprising a tubular draining member, a flange formed with one end of the member, a nut threadably engaging the opposite end of the member for securing the member in an opening provided in the bottom of a boat, a valve seat threadably mounted in the member, a cage having an annular lower end portion threadably engaged with said flange, a valve member, a stem formed with the valve member, said stem having peripheral threads engaging said cage, and a hand wheel secured to the upper end of said stem for rotation of the valve into open or closed position.

In testimony whereof I hereunto affix my signature.

EVERETT B. GREEAR.