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2,384,941

BEARING FOR RUDDER SHAFTS

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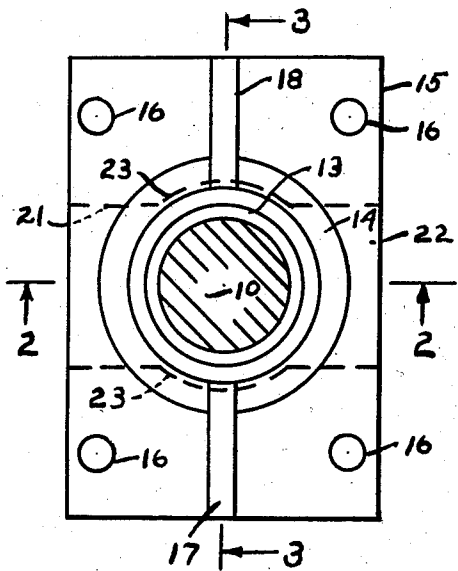


Fig 1

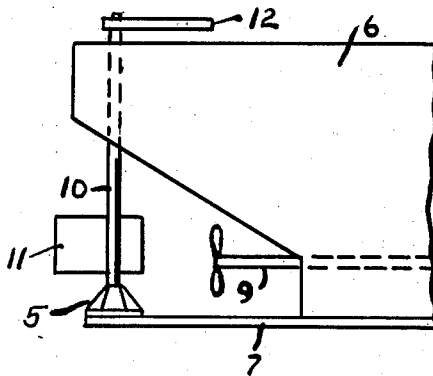


Fig 4

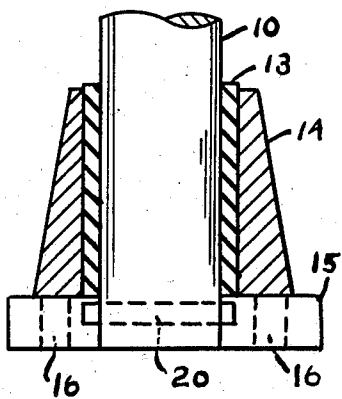


Fig 2

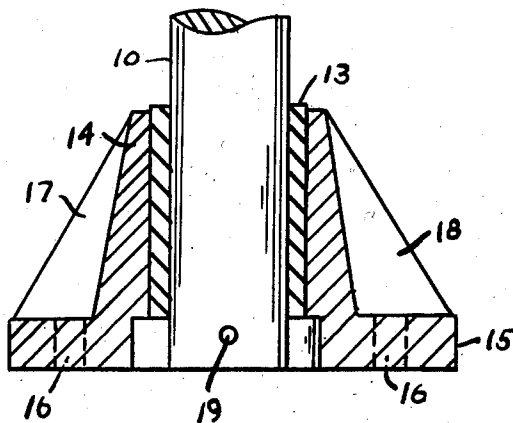


Fig 3

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BEARING FOR RUDDER SHAFTS

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4 Claims. (Cl. 114—165)

My invention relates to bearings for rudder shafts. It relates more particularly to bearings for the lower ends of rudder shafts which are immersed in water when boats are in use.

An object of the invention is to provide a bushing which will prevent electrolytic action between the shaft and a metallic housing for the bushing at the lower end of the shaft. When an all metal bearing is employed in this position, electrolytic action occurs between the shaft and the bearing especially when the boat is in salt water and in the course of time this action corrodes the bearing and the lower portion of the shaft to such an extent that the life of the bearing is impaired. To remedy this defect, I provide the lower portion of the shaft with a bushing of wear resistant insulating material supported in a metal housing adapted to be secured to the bottom of the boat at the stern thereof.

The novel features which I believe to be characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and method of operation, together with additional objects and advantages thereof, will be best understood from the following description of a specific embodiment when read in connection with the accompanying drawing in which,

Fig. 1 is a top plan view of the device.

Fig. 2 is a view mostly in section on the line II—II of Fig. 1.

Fig. 3 is a view mostly in section on the line III—III of Fig. 1.

Fig. 4 is a side elevational view of the stern of a boat showing the device applied thereto.

Referring to the construction shown, the numeral 6 designates the stern of a boat having a skeg or keel 7 which extends beyond the back of the boat which carries a propeller shaft 9. The bearing is designated in general by the numeral 5. A rudder shaft 10 has secured thereto a rudder 11 and a tiller 12. The lower portion of the shaft 10 is surrounded by an imperforated bushing 13 of wear resistant insulating material such as rubber or rubber composition. This bushing is enclosed in a metal housing 14 which may conveniently be made of brass having a base member 15 provided with holes 16 for securing to the rearward end of the keel. The housing 14 has a rear strengthening flange 17 and a front strengthening flange 18. The lower end of the shaft 10 is provided with a transverse hole 19 for receiving a pin 20. It is to be noted that the bushing 14 extends a little above the top of the housing 14. Also that the base 15 is cut out so as to leave an

annular space between the base and the lower end of the shaft.

The operation and advantages of my bearing will be readily understood in connection with the foregoing description and the accompanying drawing. The bushing of insulating material prevents electrolytic action from occurring between the metal of the shaft and the metal of the housing, thereby insuring much longer life for the bearing free from corrosion. The upper end of the shaft may be supported in any well known or convenient manner since this portion of the shaft is not normally immersed in water. As will be understood from Fig. 4, this invention is intended for use with light boats such as motor boats having a wooden hull. The base member 15 is provided with opposite openings as indicated at 21 and 22 in order that the pin 20 may be inserted and also driven out when it is desired to remove the shaft 10. The dotted lines 23 indicate space for the pin to turn in.

I claim:

1. In combination with a boat having a rearwardly extending skeg, a rudder shaft, an imperforate bushing of wear resistant insulating material around the lower portion of said shaft, and an upwardly extended housing for said bushing secured to the said skeg.

2. In combination with a boat having a rearwardly extending skeg, a rudder shaft, an imperforate bushing of wear resistant insulating material around the lower portion of said shaft, an upwardly extended housing for said bushing secured to the said skeg, a reinforcing flange on the rear of said housing, and a similar flange on the front of said housing.

3. In combination with a boat having a rearwardly extending skeg, a rudder shaft, an imperforate bushing of wear resistant insulating material around the lower portion of said shaft, and an upwardly extended metal housing for said bushing secured to the said skeg, said bushing extending up beyond the top of said housing.

4. In combination with a boat having a rearwardly extending skeg, a rudder shaft, an imperforate bushing of wear resistant insulating material around the lower portion of said shaft, an upwardly extended metal housing for said bushing, and a base member on the lower end of said housing secured to the said skeg, said base member being cut out to leave an annular space between it and the lower end of said shaft.

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