United States Patent

Goepfrich

[15] **3,659,544**

[45] **May 2, 1972**

[54] BOAT ANCHOR

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[22] Filed: **Dec. 12, 1969**

[21] Appl. No.: **884,496**

[52] **U.S. Cl.** ..... **114/206 R**

[51] **Int. Cl.** **B63b 21/24**

[58] **Field of Search** ..... 114/206, 206 A, 207, 219, 210, 114/5 R; 9/8 R

[56] **References Cited**

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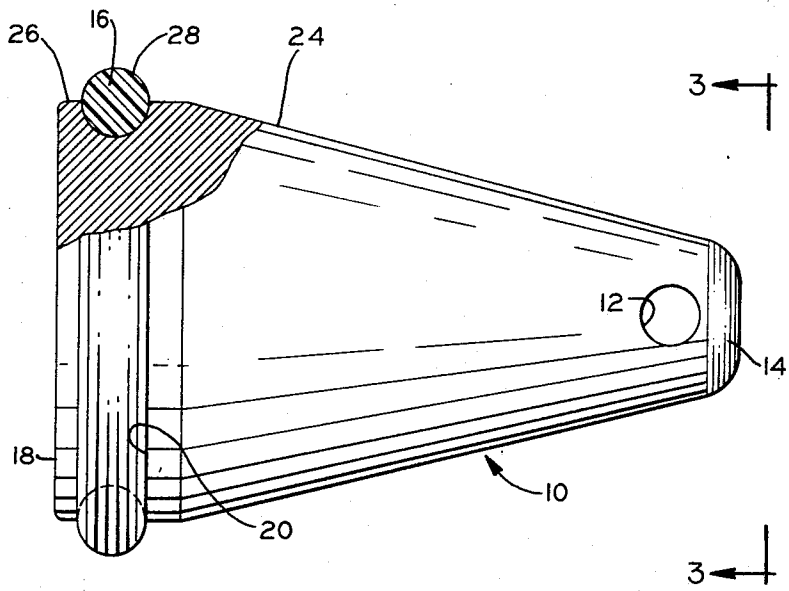
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Assistant Examiner—F. K. Yee
Attorney—Jeffers and Young

[57] **ABSTRACT**

An improved anchor is of conical construction, and has at its larger diameter end a groove which is adapted to receive therein an annular "O" ring which protrudes beyond the outer surface of the anchor to provide a bumper which protects the sides of the boat against damage as the anchor swings against the sides of the boat.

2 Claims, 4 Drawing Figures



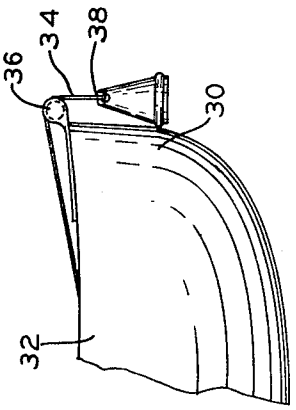


FIG. 1

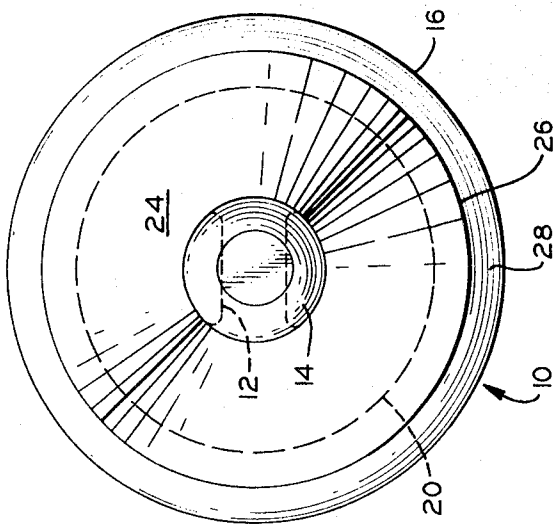


FIG. 3

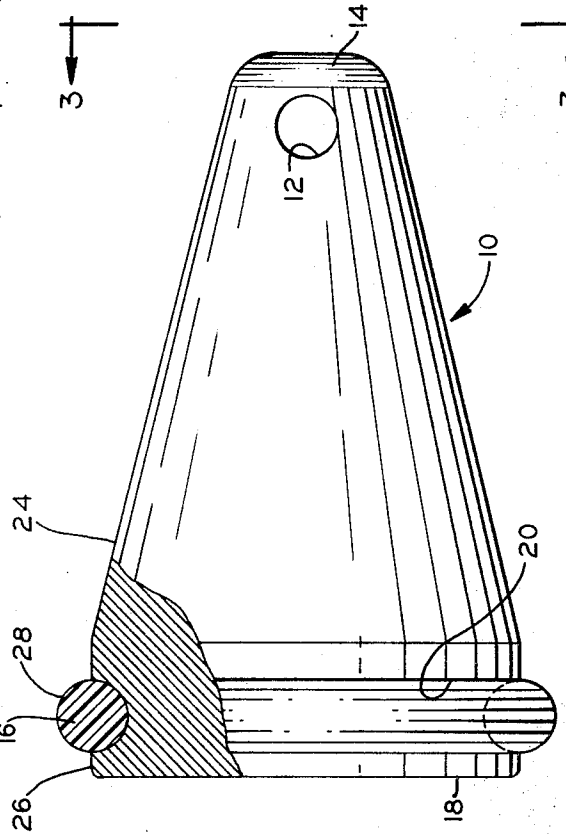


FIG. 2

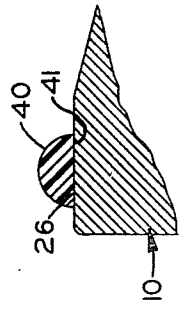


FIG. 4

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BOAT ANCHOR

BACKGROUND OF THE INVENTION

In many cases anchors which are suspended from a boat will have a tendency to bang against the boat under the rocking action which occurs from waves acting on the boat. The anchor can cause damage to the boat and this in an undesirable occurrence. The boat anchor can be drawn into the interior of the boat, but that is an inconvenience since it must be picked up and put within the boat and thereafter lowered over the side of the boat when it is time to anchor the boat. It is much more convenient to simply raise the anchor out of the water and snub the line with the boat anchor hanging over the outside of the boat and above water level. What the art needs is a way of suspending the anchor so that it can be left free to swing but without producing injury to the boat.

OBJECTS OF THE INVENTION

One of the principal objects of the present invention is to provide an improved anchor construction in which there is a bumper combined with the anchor in order to protect the outside of the boat from damages as the anchor swings and impacts against the outer surface of the boat.

It is a further object of the present invention to provide a bumper in the form of an annular "O" ring which can be stretched and will snap within a companion groove at the larger diameter end of a conically shaped anchor, the dimensions of the "O" ring being such that it will extend beyond the outer surface of the anchor and provide a resilient cushion between the anchor and the boat and will absorb the impact of the anchor striking the outside of the boat.

Other objects and features of the present invention will become apparent from a consideration of the following description which proceeds with reference to the accompanying drawings.

DRAWINGS

FIG. 1 is a fragmentary view showing the anchor in a raised position at the outer surface of the boat;

FIG. 2 is an enlarged detail view of the anchor, with a portion thereof broken away to illustrate how the bumper is attached at the larger diameter end of the anchor;

FIG. 3 is an end view of the anchor looking in the direction of the arrow 3—3 of FIG. 2; and

FIG. 4 is a fragmentary view of a further embodiment of my invention.

DETAILED DESCRIPTION

The anchor designated generally by reference numeral **10** is a conical configuration and is comprised of a heavy material such as cast iron or concrete or the like and includes an eye **12** at the smaller diameter end **14** and an "O" ring bumper **16** at the larger diameter end **18**. At the larger diameter end is a groove **20** and the "O" ring **16** is stretched and snap fits within groove **20**.

At the larger diameter end the walls change from a sloping section **24** to a cylindrical section **26** so that a hemispherical portion **28** of the annular configuration "O" ring extends uniformly beyond the outer periphery of the cylindrical section **26** and provides a surrounding bumper which protects side **30** of boat **32** when the anchor is raised by means of a line **34** which passes over a pulley **36**.

The end **38** of the line **34** is fastened in some suitable manner to the eye **12**. When the anchor **10** is raised any bobbing or swaying of the boat by wave action of the water, or rowing will cause the anchor to swing as a pendulum on the

end of line **34** and as it swings the anchor will impact against the side of the boat **30** tending to cause damage to the boat. In the present case, however, the "O" ring bumper which surrounds the lower end of the anchor completely surrounds the larger diameter end thereof and provides a resilient cushioning intermediary between the anchor and the boat and prevents damage to the boat as the anchor tends to pound against the boat by the inertia of the pendulum action of the anchor.

It is relatively easy to install the "O" ring since it need merely be stretched and snap fitted within the groove **20** where it is permanently installed until such time as the rubber loses its elasticity or it is weathered beyond useful purpose at which time a replacement "O" ring can easily be snap fitted in place and the old one discarded.

The exterior surface of the anchor is smooth and regularly profiled so that as the anchor is drawn up and scrapes against the outer surface of the boat it will not produce damage to the exterior of the boat.

The elasticity of the "O" ring is sufficient to keep it in place even though it tends to scrape and abrade against the outer surface of the boat. The composition of the "O" ring may vary, of course, but it is generally of a water resistant character since the anchor is, of course, immersed from time to time in both fresh and salt water. For that reason I select an elastomer which is compounded to be oil and water resistant such as Chloroprene or the like. It is not essential, of course, that the "O" ring be completely rubber or elastomer i.e., it may be impregnated with reinforcement fibers and plastic materials may also be used in lieu of rubber depending upon the price and wear-life expectancy desired.

The natural elasticity of the product can be relied upon to retain the rubber bumper within the groove **20** or if desired the bumper can be bonded within the groove.

Referring to FIG. **4**, an "O" ring bumper of D-shaped cross section is bonded at its inner periphery **41** to the cylindrical section **26** of anchor **10** rather than fitting within a groove as in the previous embodiments.

Although the present invention has been illustrated and described in connection with a single example embodiment, it will be understood that this is illustrative of the invention and is by no means restrictive thereof. It is reasonably to be expected that those skilled in this art can make numerous revisions and adaptations of the invention and it is intended that such revisions and adaptations will be included within the scope of the following claims as equivalents of the invention.

What is claimed is:

1. A boat anchor assembly comprising a pulley, an attachment line passing over said pulley and an anchor having an eyelet for receiving the end of said line and adapted to raise and lower the anchor in the water, said anchor comprising a solid elongated conically shaped weight wherein said eyelet is disposed at the substantially smaller diameter rounded end thereof, a cylindrical section at the larger diameter end of said anchor having a groove intermediate the ends of the cylinder section and formed therein, and an expandible resilient member of circular cross section which is stretched to fit within said groove and proportioned to be of an outer diameter which extends only half the diameter of the cross section beyond the outer surface of the anchor at the larger diameter end thereof to provide a bumper which completely surrounds the outer surface of said anchor at the larger diameter end thereof, said line being adapted to raise and lower said anchor or for holding the anchor at a preferred depth.

2. The boat anchor in accordance with claim **1**, wherein said anchor is of a solid metallic body and smooth exterior surface.

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