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P. W. GRIMM

3,190,253

DOCK ROPE ANCHOR

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FIG. 1

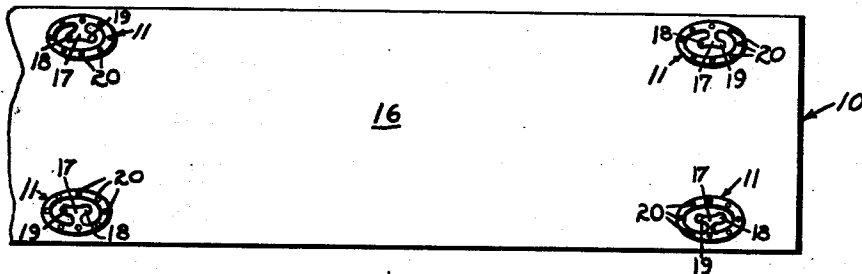


FIG. 2

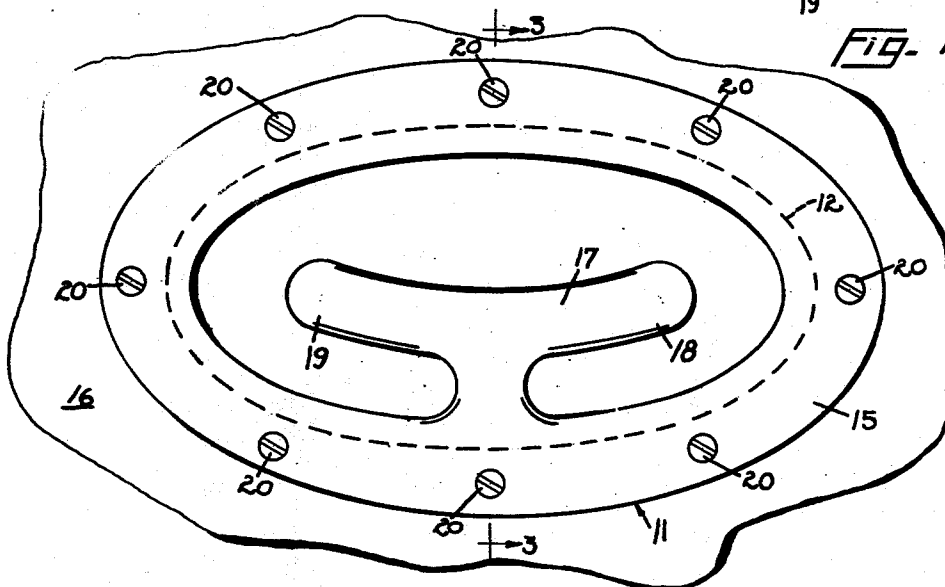


FIG. 3

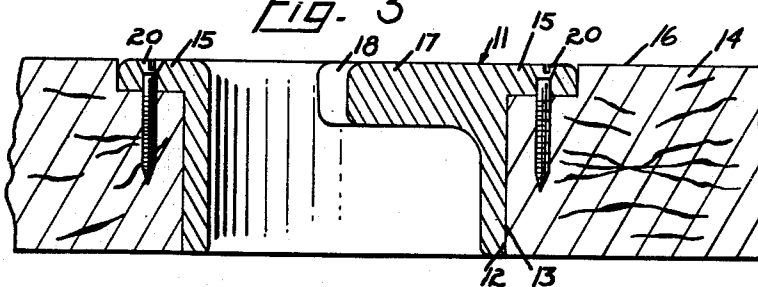
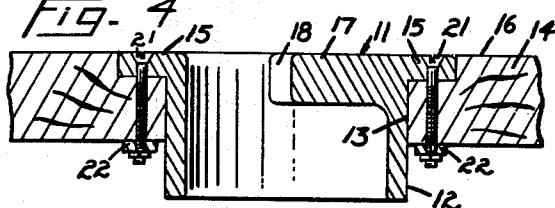


FIG. 4



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DOCK ROPE ANCHOR

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1 Claim. (Cl. 114-218)

This invention relates to a novel dock rope anchor such as might be used on the decking of a boat dock.

It has been conventional for many years to provide cleats, hooks, rings or other devices on boat docks so that one can anchor a boat to the dock by means of ropes looped or tied at their ends. In almost every instance this has involved the use of a member that protrudes above or beyond the decking of the dock, presenting an obstacle to one walking along the dock and a ready source of potential danger to the user of the dock. This condition is particularly hazardous when utilized on docks that serve also for swimming or diving purposes. Therefore, the present invention contemplates a dock rope anchor that mounts in a position flush with the decking, providing a substantial anchor, while also providing a substantially continuous surface upon which a person can walk without danger.

It is a first object of this invention to provide a dock rope anchor which can be readily mounted on a dock by forming a simple aperture in the decking and fastening the anchor to the decking surface. The mounted anchor is set in flush with the decking surface and the cleat adapted to receive the looped end of a rope is never higher than the top of the mounting flange of the anchor.

Another object of this invention is to provide such an anchor that can be easily cast as an integral unit.

Another object of this invention is to provide an attractive anchor wherein the cleat is spaced quite uniformly from the ring that mounts it in the decking.

These and further objects will be evident from a study of the accompanying drawings, taken in conjunction with the following detailed disclosure, all of which pertains to a particular embodiment of the invention. It is to be understood that this embodiment, while favored, is not intended to limit the scope of the invention, but rather to stand as an example of its application.

In the drawings:

FIGURE 1 is a top view of the end portion of a dock provided with the instant anchors at four locations, the remainder of the dock being broken away;

FIGURE 2 is an enlarged top view of a single anchor as seen in FIGURE 1, the surrounding decking being broken away;

FIGURE 3 is a sectional view taken along line 3-3 in FIGURE 2; and

FIGURE 4 is a sectional view similar to FIGURE 3 showing how the anchor is secured to a thinner deck.

The dock anchor formed according to this invention is extremely simple in structure and can be readily understood from the accompanying drawings. It is designed to be mounted within an oval shaped aperture formed through the decking of a conventional boat dock generally designated by the numeral 10. The dock 10 shown in FIGURE 1, has four anchors 11 mounted thereon, although any desired number of anchors could obviously be utilized.

Each anchor 11 is preferably formed as shown in FIGURES 2 and 3. The anchors 11 can be easily cast as integral units, and will provide a substantially strong member to which a rope can be attached by passing its looped

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end over the cleat of the anchor. The anchor 11 includes an oval ring having a continuous annular oval wall section 12 whose outside configuration is complementary to the interior surface of the aperture 13 formed through the decking 14 of dock 10. The section 12 is preferably equal to or greater in depth than the thickness of the decking 14, so that when mounted within the aperture 13, the section 12 will protrude entirely through the decking 14. Formed at the top of the section 12 is a flange 15 that is also continuous and complementary in its oval shape relative to the aperture 13. The flange 15 is flush with the top of the section 12, and protrudes radially outward therefrom about the entire periphery of section 12. The flange 15 is preferably set into the decking to bring the top thereof flush with the top surface 16 of decking 14, in the manner shown in FIGURE 3.

Extending inwardly from the flange 15 is an integral fiburcated cleat 17 having two arms 18 and 19 that extend to each side of the joinder of cleat 17 with the ring and which are equidistantly spaced from the inside edge of the flange 15 along each side of said joinder. The terminal ends of the arms 18 are spaced from the ends of the flange 15 by a distance no less than the separation between the arms 18 and the adjacent sides of the flange 15, and preferably by a distance slightly greater. The oval configuration of flange 15 minimizes the separation between the cleat 17 and the flange 15 about the entire periphery of flange 15, as can be seen from FIGURE 2. The cleat 17 is preferably substantially thicker than the flange 15, and the top surfaces of cleat 17 and flange 15 are preferably coplanar. In this manner, the anchor presents no sudden protrusion above the surface 16 of the dock decking 14, and would normally not trip a person walking carefully along the dock 10. One can walk over the anchor without tripping, since the cleat 17 fills a substantial portion of the oval shaped aperture within the wall 12. This prevents a child's foot from entering.

To mount the anchor on a conventional dock is a simple matter, involving only the cutting of an oval shaped aperture 13 so as to receive the lower section 12 of the continuous ring. After cutting such an aperture 13 the deck is preferably recessed to receive the relatively thin flange 15. The anchor is seated with the section 12 protruding through the aperture 13. The flange 15 is fastened to the decking 14 by means of spaced screws 20. Where the deck is thin, as shown in FIGURE 4, it is desirable to use bolts 21 and an oval ring 22 in securing the anchor. One can then anchor to the cleat 17 by simply passing a looped end of rope over the arms 18 and 19, the rope being fastened in the usual manner to a boat or other floating apparatus.

Various modifications could be made in this structure without deviating from the basic concept of a substantially flush and very simple unitary cleat structure combined with an esthetic appearing ring that can be easily and readily fastened in place when desired. For this reason, and so as to cover equivalent structures within the scope of the invention, the following claims are intended to define and limit the extent of my invention.

Having thus described my invention, I claim:

A dock rope anchor formed as an integral metal casting and adapted to be mounted within an aperture formed through the decking of a boat dock comprising:

a continuous oval ring including an axially open section with an exterior cross sectional configuration complementary to the inside of the dock aperture;

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a flange directed radially outward from said ring at one axial end thereof;

and a bifurcated cleat at the end of said ring including the flange, said cleat intersecting one side of said ring along its minor axis and extending inwardly of said ring, said cleat being spaced equidistantly from the ring along its entire length at both sides of its joiner to said ring, the external surfaces of said ring, flange and cleat being coplanar.

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