March 20, 1962 K. J. ROBINSON 3,025,821

ANCHOR DAVIT

Filed June 30, 1960

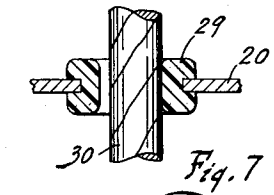


Fig. 7

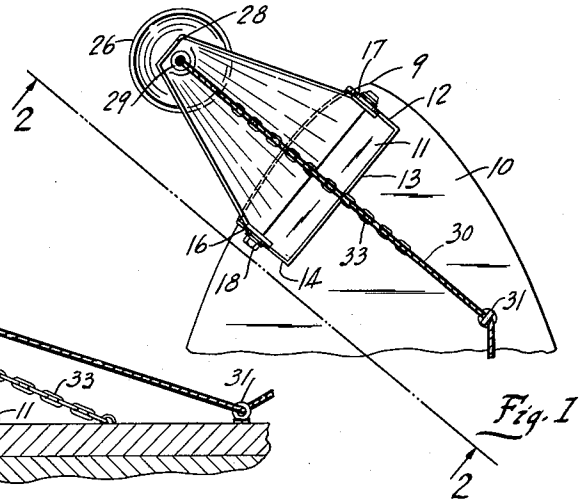


Fig. 1

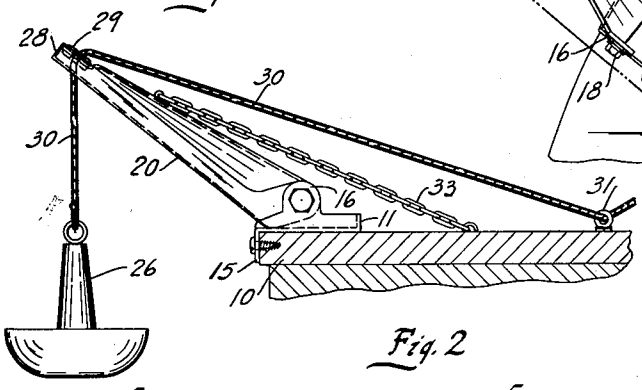


Fig. 2

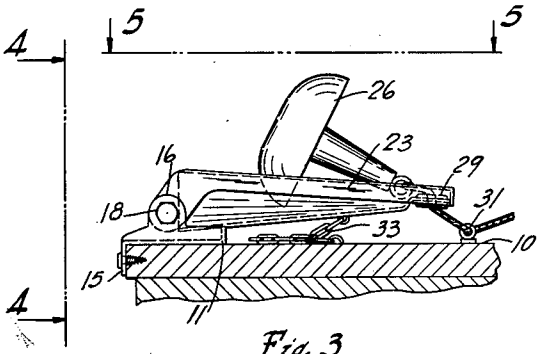


Fig. 3

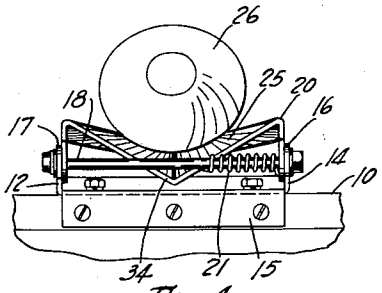


Fig. 4

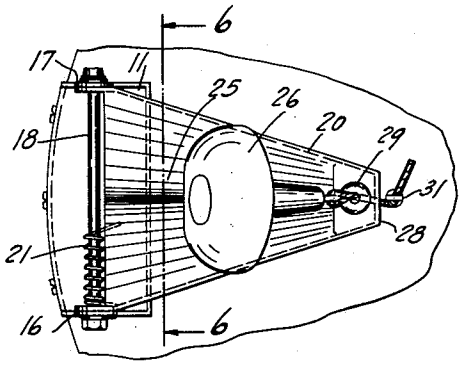


Fig. 5

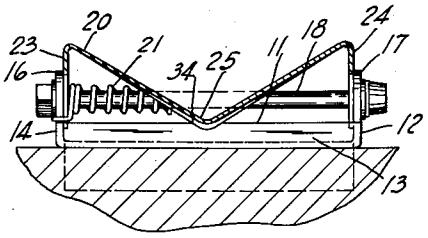


Fig. 6

INVENTOR.

KENNETH J. ROBINSON

BY

Wheeler, Wheeler & Wheeler

ATTORNEYS

United States Patent Office 3,025,821 Patented Mar. 20, 1962

3,025,821

ANCHOR DAVIT

Kenneth J. Robinson, Rte. 4, Box 226A, Traverse City, Mich.

Filed June 30, 1960, Ser. No. 39,966
5 Claims. (Cl. 114—210)

This invention relates to an improved anchor davit.

The base portion of my improved davit is designed for mounting at one side of the bow on the forward deck of a boat and is provided with a lip marginally overhanging the deck, the arrangement being such that the base portion comprises a shallow pan opening laterally to receive water and soil and to guide such material for discharge overboard for the protection of the deck.

Pivoted on this base portion is the davit lever which is specially designed to provide an anchor-receiving pocket which drains onto the base. The anchor line passes through guide means at the free end of the lever, a grommet of synthetic rubber being preferred to a pulley for this purpose. A powerful spring acts on the lever in a direction to catapult the anchor overboard when tension on the anchor cord is released by the operator. Some means, preferably comprising a chain extending from the base and connected to the davit lever near the free end thereof, limits the outward movement of the lever to a position in which the anchor rope is carried free of the bow of the boat.

The catapulting spring is desirably coiled about a pintle rod which extends horizontally between ears of the pan-shaped base, one end of the spring being anchored to the base and the other to the concave lower end of the davit lever. The anchor rope, after passing through the grommet or other guide at the end of the lever, preferably extends across the bow of the boat substantially in line with the center line of the lever to another guide on the remote side of the boat. This may comprise a simple screw eye screwed into the deck. Thence, the anchor rope extends to any appropriate point for manipulation by the operator. In the arrangement disclosed, the base is mounted at the port side of the bow and the screw eye is at the starboard side and somewhat aft.

The davit lever is preferably fabricated as a stamping having a central anchor-receiving cavity which, as aforesaid, drains at the lower end of the lever onto the base whereby water and soil will be carried overboard. The cavity also restrains the anchor to a position centrally of the lever. At the sides of the lever are downturned flanges which converge toward the free end of the lever, the lever being triangular in plan and having the shape of a letter M in cross section.

In the drawings:

FIG. 1 is a plan view of an anchor davit embodying the invention as it appears with the davit lever hanging over the bow and the anchor suspended therefrom.

FIG. 2 is a view on an enlarged scale from the anchor davit installation as viewed on line 2—2 in FIG. 1.

FIG. 3 is a view similar to FIG. 2 showing the parts in anchor-storing position.

FIG. 4 is a view of the parts in end elevation as viewed from the line 4—4 in FIG. 3.

FIG. 5 is a view of the parts in plan as viewed from the line 5—5 in FIG. 3.

FIG. 6 is a detail view in cross section on the line 6—6 of FIG. 5.

FIG. 7 is an enlarged fragmentary detail view showing the anchor rope guide at the free end of the davit lever.

The boat hull is only diagrammatically illustrated. Its bow 9 has a deck portion 10 upon which is mounted a panlike davit base 11 having upstanding flanges 12, 13 and 14 on three sides and a depending flange 15 which overhangs the deck 10 at one side of the bow 9 and is preferably screwed or otherwise connected to the deck as best shown in FIG. 4.

Upstanding ears 16 and 17 which may be integral with the side flanges 14 and 12 on the base support a pintle bolt 18 for the davit lever 20, the bolt also serving as a guide for a torsion spring 21 which acts on the davit lever in a direction to oscillate it about the pintle bolt 18 from the position of FIG. 3 to the position of FIG. 2.

The davit lever 20 is desirably made of sheet metal and is formed to provide downwardly turned side flanges 23 and 24 which are pivoted upon the pintle bolt 18 immediately adjacent the ears 16 and 17 respectively. Between these side flanges, the davit lever provides an anchor-receiving pocket at 25 within which the anchor 26 is shown at rest in FIGS. 3, 4 and 5. While it is broadly immaterial to the invention, it is preferred that the davit have the form of a letter M in cross section to provide the flanges 23 and 24 and the cavity 25.

Adjacent the free end 28 of the davit lever, the lever is provided with a grommet 29 in preference to any other kind of guide for the anchor rope 30. The anchor rope, after passing from the anchor through the grommet guide 29, extends through another guide 31 which may be an eye bolt or the like fixed in the deck 10 at a point which is just beyond the range of swinging movement of the free end 29 of the davit lever as shown in FIG. 3.

When the operator pulls on the anchor rope 30 to draw it through the guide 31, the anchor is raised. For temporary transportation between one anchorage and another, the anchor may be carried in the position shown in FIG. 2. However, for more permanent storage, continued tention is exerted on the line 30 to draw the anchor into contact with the end of the davit. Continued pull on the line 30 will cause the anchor to pivot the davit against the bias of spring 21 from the position of FIG. 2 to that of FIG. 3.

As the davit pivots, its cavity 25 will pick up the anchor 26 for storage on the davit. At the same time, the continuous metal surface provided by the concave portion of the davit lever will drain water and soil from the davit lever into the pan-shaped base 11, from which it drains overboard.

If the anchor line holding the davit in its FIG. 3 position is sharply released by the operator, the davit will swing sharply counterclockwise as viewed in FIGS. 2 and 3 to catapult the anchor overboard. The swing of the davit will be arrested by stop means which here constitutes a chain 33 normally coiled beneath the davit lever as shown in FIG. 3.

The synthetic resin guide 29 for the anchor line has been found superior to any other type of guide. It shows no wear or abrasion whether the anchor line is wet or dry or whether it is fouled with sand or seaweed or other material. Seaweed, which would tend to foul a pulley, is simply stripped along the anchor line by this grommet.

The lip 34 at the lower end of the trough-shaped davit lever lies at all times within the flange of base 11 so that whether the lever is horizontal as in FIG. 3 or is at some intermediate position, drainage will flow overboard at all times and the deck is protected therefrom.

I claim:

1. In an anchor installation comprising a pan-shaped base having provision for outboard drainage, a trough-shaped davit lever in pivotal connection with the base and arranged to drain into said base for outboard dischage of drainage, said lever having a free end portion provided with an anchor line guide, the trough-shaped form of said lever providing an anchor-receiving pocket, and an anchor line extending through said guide and provided with an anchor.

2. The device of claim 1 in which a pintle bolt spans the base, the davit lever having integral downturned portions through which said bolt extends for the pivotal connection of the davit with the base, and a torsion spring encircling the bolt and respectively connected with the base and the lever and biasing the lever toward a position in which it projects outboard from said boat, the lever being provided with stop means for limiting outboard movement in response to the bias of said spring.

3. The device of claim 2 in which the line guide comprises a grommet of synthetic resin.

4. An anchor davit installation designed for attachment to a deck at one side of a bow of a boat for receiving and guiding an anchor provided with an anchor line, said davit comprising a base having a downturned flange positioned to overhang the deck and having side and back flanges which are upstanding to confine water and soil for outboard delivery over the flange first mentioned, a pintle bolt mounted on the side flanges aforesaid and spanning the base, a davit lever having a longitudinally extending cavity and provided with marginal flanges threaded on said bolt and pivoted thereby to the base, the davit lever having a free end portion provided with a guide opening for an anchor line, a spring encircling the bolt and having its end portions connected respectively with the base and the lever and biasing the lever toward an outboard position respecting said base, and means for limiting the outboard oscillation of the lever and for holding its free end portion at an elevation such that when engaged by the anchor under tension of the anchor line the lever will pivot toward a retracted position in which it overlies the base, the central cavity of said lever being adapted to drain into the base for outboard discharge water and soil received on the lever from an anchor.

5. In an anchor davit for use at one side of the bow of a boat having a forward deck and an anchor rope guide at the other side of the bow opposite the davit, a base having one side adapted to drain overboard and having a water-confining flange extending about its other margins, a davit lever longitudinally channeled and having a pivotal connection with the base, the channel of said lever draining into the base in all positions of the lever, the lever further having a free end remote from its pivotal connection with the base and movable in an arc about said connection and provided with a line guide adapted to receive the anchor rope of an anchor resting in the chanel of said lever, the lever being of such a length that the line guide at the free end thereof will be proximate the line guide of the boat in one position of the lever, and a spring having end portions provided with seats on the base and on the lever respectively, said spring being biased between said seats to oscillate the lever from said position to another position in which its free end projects outwardly beyond the deck of the boat.

References Cited in the file of this patent

UNITED STATES PATENTS

2,844,119 Dugan ---------- July 22, 1958