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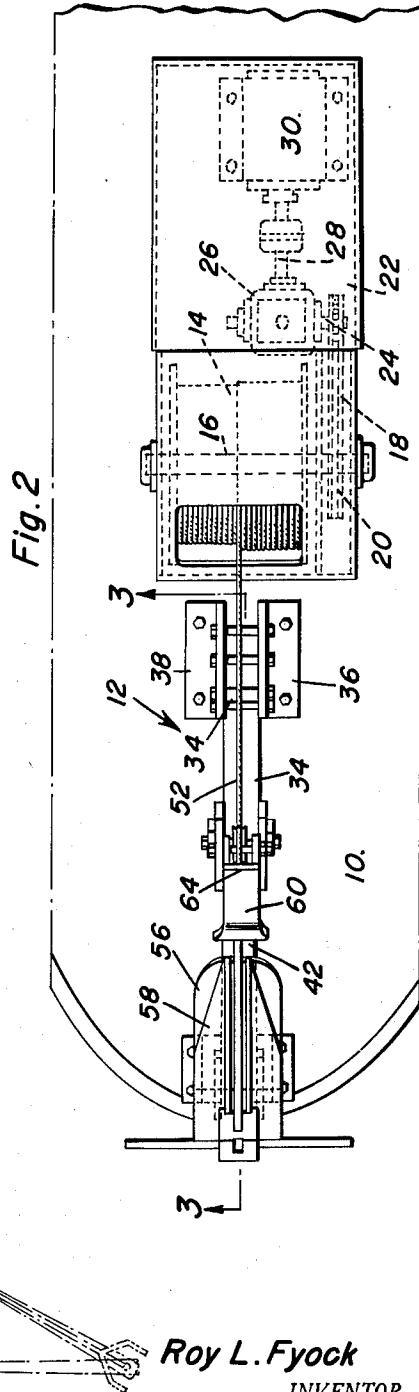
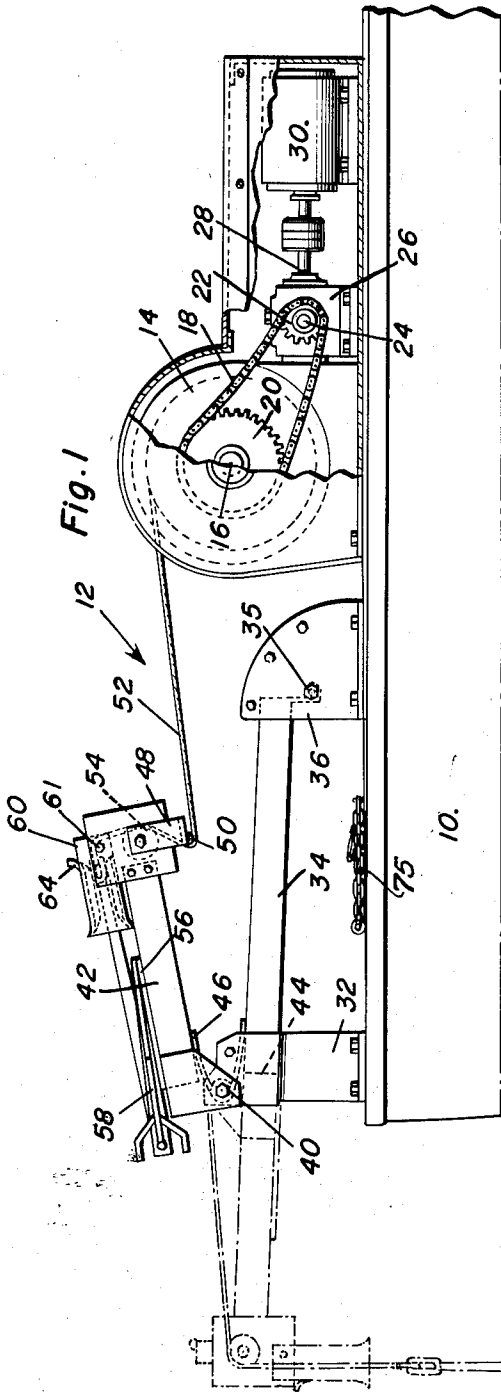
R. L. FYOCK

2,734,475

ANCHOR HANDLING APPARATUS

Filed May 12, 1954

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

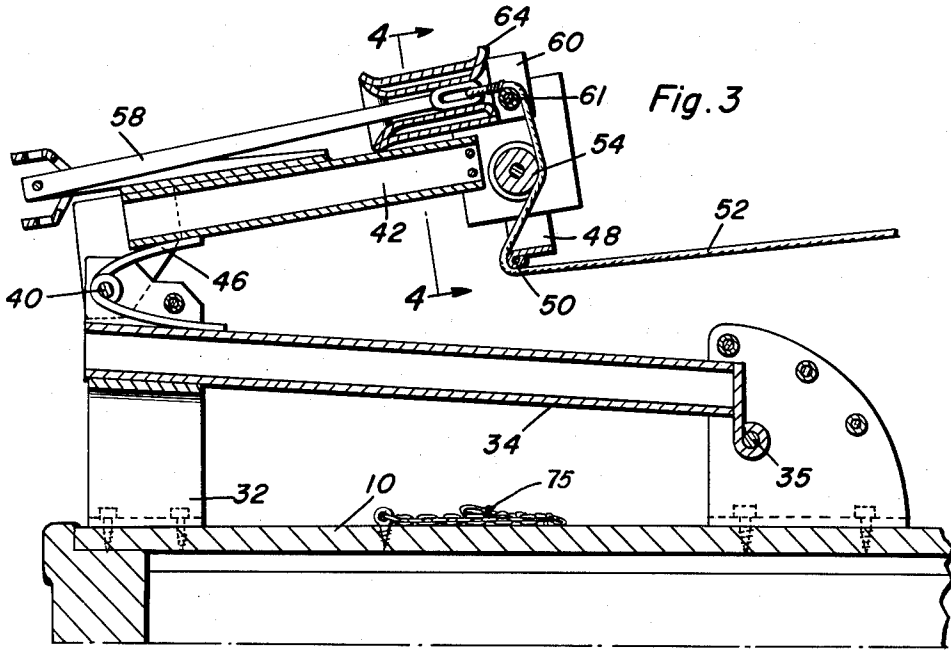


Fig. 3

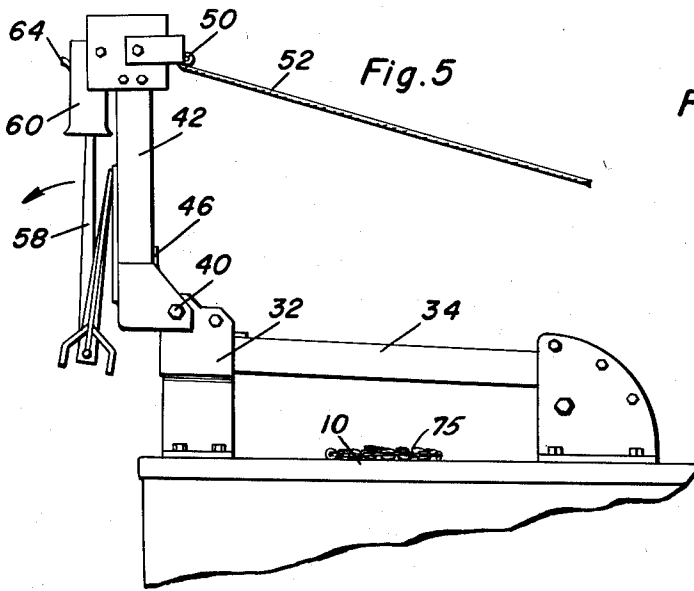


Fig. 5

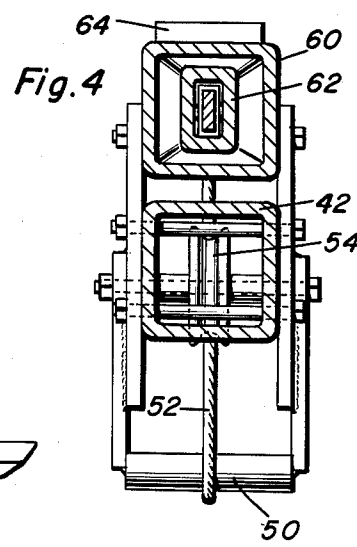


Fig. 4

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1

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## ANCHOR HANDLING APPARATUS

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7 Claims. (Cl. 114—210)

This invention relates to an anchoring arrangement for use on boats and has as its primary object the provision of means for automatically raising and lowering an anchor by mechanical means while at all times maintaining the anchor in a position where it cannot harm the comparatively frail hull of a boat.

Power anchoring apparatus is not generally used on small boats such as cabin cruisers, fishing crafts, and the like, because of the possibility that the anchor can, while being raised, be directed so as to puncture the hull of the boat which is oftentimes made of light weight material such as thin plywood sheets, planking, or light weight metal plates. The construction of this invention features means for holding an anchor outwardly of the hull of the boat and for cradling the anchor after the anchor has been taken aboard.

One of the features of this invention resides in a pivoted anchor stock receiving guide which is attached to an arm assembly carrying an anchor support or cradle plate which likewise is pivotally attached to a support standard.

Still further objects and features of this invention reside in the provision of an anchor handling apparatus that is strong and durable, simple in construction and manufacture, which can be constructed from corrosion resistant materials, and which may be attached either to the bow or stern of any suitable craft.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this anchor handling apparatus, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a side elevational view of the anchor handling apparatus with parts thereof being broken away to show other parts in detail;

Figure 2 is a top plan view of the invention;

Figure 3 is an enlarged vertical sectional view as taken along the plane of line 3—3 in Figure 2;

Figure 4 is an enlarged sectional view as taken along the plane of line 4—4 and illustrating the construction of the anchor stock receiving guide; and

Figure 5 is an elevational view similar to that of Figure 1 but showing the anchor handling apparatus in an intermediate stage or position while hoisting the anchor or lowering the anchor.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates a boat such as a cabin cruiser, or the like, on which the anchor handling apparatus comprising the present invention as generally designated by reference numeral 12, is adapted to be installed. The anchor handling apparatus includes a winch 14 comprising a drum mounted on a shaft 16 which is driven by means of an endless chain 18 entrained about a sprocket wheel 20 attached to the shaft 16. The endless chain 18 is also entrained about a drive sprocket 22 which is

2

driven by shaft 24 extending outwardly from a gear reduction box 26 to which motor power is supplied through shaft 28 by a reversible electric motor 30, or other suitable drive means.

The anchor handling apparatus 12 includes a support standard 32 which is secured to the deck of the boat 10 and which carries one end of a member 34 which forms a stop and which is pivotally attached as at 35 between brackets 36 and 38 also attached to the boat 10.

Pivotally mounted by means of shaft 40 to the support standard 32 is an arm assembly 42 which when lowered into the position as is shown in the dotted lines in Figure 2 is adapted to abut against the end edge 44 of the member 34. A spring 46 secured about the shaft 40 continuously urges the arm assembly 42 to the outward position as is shown in the dotted lines in Figure 1.

Secured to the arm assembly 42 are brackets 48 which carry a pulley 50 about which the anchor cable 52 attached to the drum of the winch 14 is entrained. The anchor cable 52 is further entrained about a pulley 54 within the arm assembly 42. The arm assembly carries an anchoring catting or support plate 56 for supporting the flukes of the anchor 58 when the anchor is in a raised and catting position.

Pivotally attached to the arm assembly 42 is an anchor stock receiving guide 60 which is generally rectangular in cross section and which includes a guide plate 62 positioned therein which generally conform to the shape of the stock of the anchor 58. The cable 52 is also entrained about pulley 61 in guide 60. A stock plate 64 is attached to the guide 60 for limiting the position of the guide 60 when in a lowered position.

In operation, with the anchor 58 in the lower position as is shown in dotted lines in Figure 1, upon actuation of the winch 14 by the motor 30, the cable 56 will pull the anchor 58 upwardly until the stock of the anchor is received within the guide 60. Further pulling on the cable 52 will pivot the arm assembly 42 to the position as is shown in Figure 5 with the flukes of the anchor resting against the catting plate. Further pulling upon the cable 52 will cause the arm assembly 42 to assume the position as is shown in Figures 1 and 3 compressing the spring 46.

In lowering the anchor, energy stored in the spring 46 will, upon release of the cable 52 swing the arm assembly 42 outwardly to the position as is shown in the dotted lines in Figure 1 and further release of the cable 52 will allow the anchor to lower.

Chains as at 75 can be provided as desired to secure the invention against battering in a seaway.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position.

2. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm

3

assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position, said guide being adapted to receive the stock of an anchor, a pulley in said guide adapted to have a cable attached to said anchor entrained thereabout, and at least one pulley in said arm assembly about which said cable is entrained, said cable being connected to a winch.

3. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position, said arm assembly having an anchor cradle plate attached thereto for supporting an anchor when said anchor is in a raised position.

4. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position, said guide being adapted to receive the stock of an anchor, a pulley in said guide adapted to have a cable attached to said anchor entrained thereabout, and at least one pulley in said arm assembly about which said cable is entrained, said cable being connected to a winch, said arm assembly having an anchor support plate attached thereto for supporting said anchor when said anchor is in a raised position.

5. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position, said guide having retaining plates secured therein conforming substantially to the outer configuration of the stock of an anchor.

4

6. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position, said guide having retaining plates secured therein conforming substantially to the outer configuration of the stock of an anchor, said guide being adapted to receive the stock of an anchor, a pulley in said guide adapted to have a cable attached to said anchor entrained thereabout, and at least one pulley in said arm assembly about which said cable is entrained, said cable being connected to a winch.

7. An anchor handling apparatus for boats comprising a support standard adapted to be attached on a boat, an arm assembly pivotally secured to said standard, an anchor stock receiving guide pivotally secured to said arm assembly, and resilient means interposed between said standard and said arm assembly engaging said arm assembly urging said arm assembly to an outwardly extending position, said guide having retaining plates secured therein conforming substantially to the outer configuration of the stock of an anchor, said guide being adapted to receive the stock of an anchor, a pulley in said guide adapted to have a cable attached to said anchor entrained thereabout, and at least one pulley in said arm assembly about which said cable is entrained, said cable being connected to a winch, said arm assembly having an anchor support plate attached thereto for supporting said anchor when said anchor is in a raised position.

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