May 19, 1942. R. I. HOLGERSON 2,283,500

ANCHOR DAVIT

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Fig. 1.

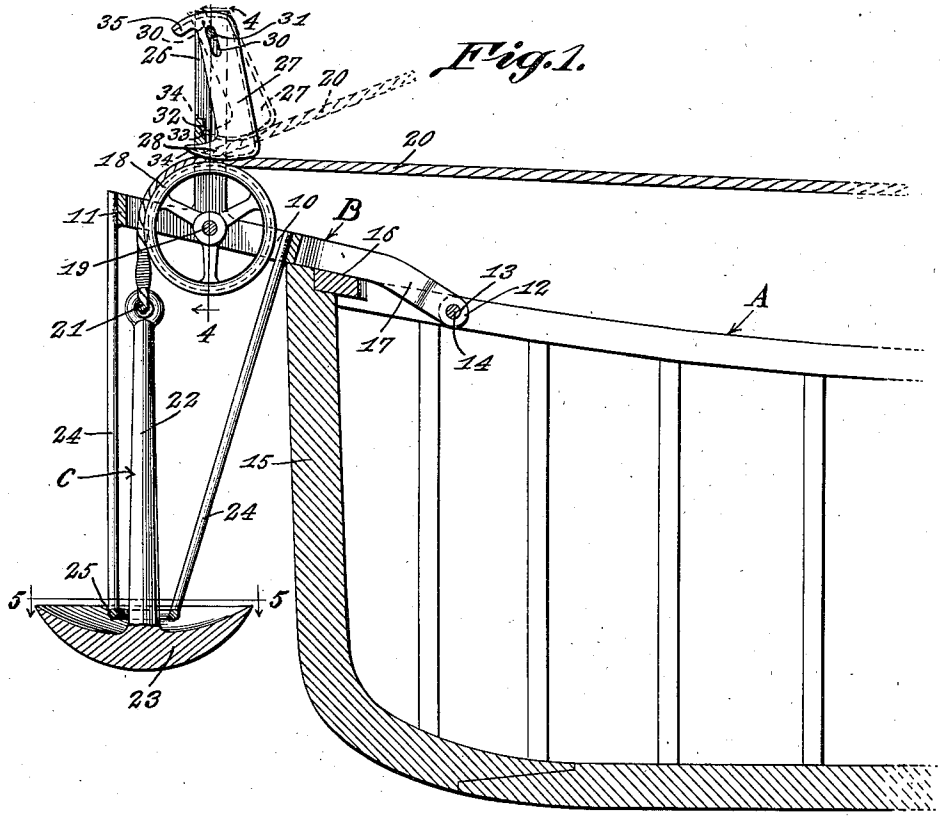
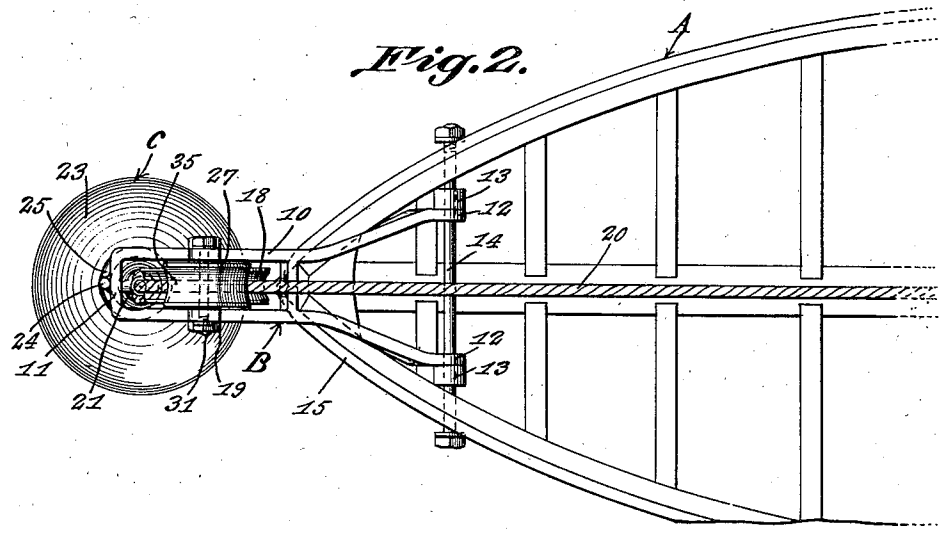


Fig. 2.



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Fig. 3.

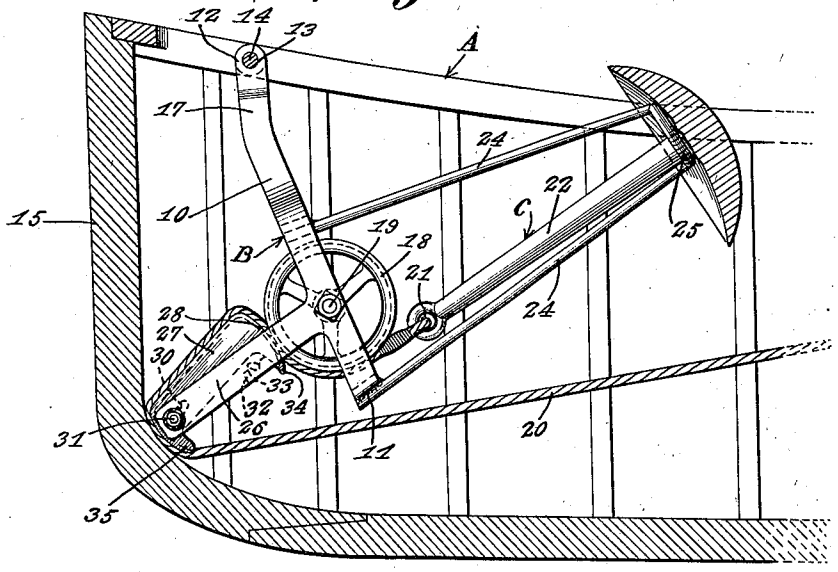


Fig. 4.

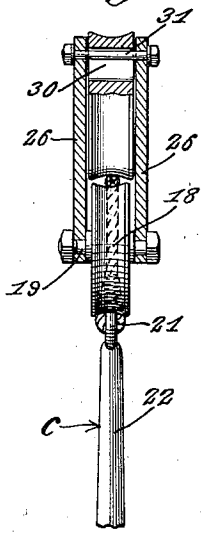


Fig. 5.

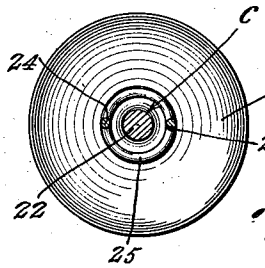
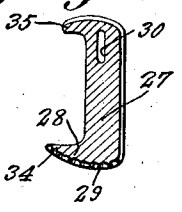


Fig. 6.



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UNITED STATES PATENT OFFICE

2,283,500

ANCHOR DAVIT

Robert I. Holgerson, Omaha, Nebr.

Application December 5, 1939, Serial No. 307,670

2 Claims. (Cl. 114—210)

The invention relates to a boat davit and more especially to anchor davits for boats.

The primary object of the invention is the provision of a davit of this character wherein an anchor can be conveniently operated from a seat within a boat in that the anchor can be moved outboard or inboard without liability of damaging the boat and when inboard the said anchor will be prevented from pounding the boat, being held fixed in a novel manner.

Another object of the invention is the provision of a davit of this character wherein the necessity for the manual handling of an anchor is entirely eliminated for the placement thereof outboard or inboard and in this way eliminating the possibility of the capsizing of the boat where a person is required to lean over the side or an end thereof, being in effect a safety device.

A further object of the invention is the provision of a davit of this character, which is mechanical in the working thereof and eliminates manual handling of an anchor and when the anchor is within a boat it will be properly held so that when the latter is traveling in rough water no damage can result from impact of the anchor upon the boat and the disposition of such anchor when held within the boat is such as to assure an even keel thereof, the davit being controlled or operated from a cable serving to raise or lower the anchor in the handling thereof.

A still further object of the invention is the provision of a davit of this character, which is simple in its construction, thoroughly reliable and efficient in operation, convenient for mounting within a boat and automatically moves the anchor from within to without the boat and vice versa as well as inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangements of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a fragmentary vertical longitudinal sectional view through a boat showing the davit and anchor in association therewith constructed in accordance with the invention and in outboard position.

Figure 2 is a fragmentary top plan view.

Figure 3 is a view similar to Figure 1 showing the davit and anchor inboard.

Figure 4 is a fragmentary detail sectional view taken on the line 4—4 of Figure 1 looking in the direction of the arrows.

Figure 5 is a sectional view taken on the line 5—5 of Figure 1 looking in the direction of the arrows.

Figure 6 is a fragmentary vertical longitudinal sectional view through a gravity-acting rope or cable clamp employed with the davit.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, A designates generally a portion of the body of a boat, being conventional, while B denotes generally the davit constructed in accordance with the invention and in association with an anchor C.

The davit B comprises a double-armed bracket 10 having a closed end 11 and the arms of said bracket at the ends 12 thereof being fitted or formed with bearings 13 for a pivot rod 14 which is made fast to the sides of the boat A and being disposed crosswise at the bow end portion 15 of said boat for functioning as a horizontal axis for the bracket 10 which swings arcuately in a vertical direction to assume a straddling relationship to the bow portion when the davit is outboard and for assuming an inboard position as shown in Figure 3 of the drawings. This bracket 10 when assuming an outboard position has seating at 16, the arms of the said bracket 10 being formed with bights 17 for enabling contact of considerable degree of the bracket at the seat 16 and in this manner avoiding cutting into the body of the boat A through continued use of the davit and in disposing the same outboard for the dropping of the anchor C.

The swinging bracket 10 has journaled therein a cable wheel or pulley 18, being journaled at 19, and over which is trained and guided a raising and lowering cable, rope or the like 20 which has coupling at 21 to the stem 22 of a mushroom-shaped anchor head 23, the cable or rope 20 being of a length to extend within the boat A to a seat occupied by a boatsman or attendant thereof and this cable, rope or the like 20 raises and lowers the anchor C as well as is effective for the operation of the davit B, as will be hereinafter set forth.

Extending from the bracket 10 are spacer members 24 for an eye or ring 25 constituting a guide for the stem 22 of the anchor C and also for the seating of the head 23 thereof. These members 24 and the ring 25 create a rack for the anchor C when its stem 22 is drawn into the ring or eye 25 as will appear in Figures 1 and 3

of the drawings for the fixedly holding of the said anchor.

Extending from the bracket 10 at that side opposite from which the rack extends is a mounting 26 for a gravity-acting cable or rope clamp in the form of a dog 27 having the foot 28 at its working face serrated or roughened at 29 for biting engagement with the cable or rope 20 and avoiding slippage when the clamp engages with this cable or rope.

The dog 27 is formed with an elongated slot 30, which is longitudinally disposed therein, the dog being elongated, and accommodated in this slot is a hanger pin 31 fixed crosswise in the mounting 26 so that the dog is free in this mounting for gravity action and for displacement under manipulation of the cable or rope 20. The dog 27 when its foot 28 is in biting engagement with the cable or rope 20, the latter is held fast against movement in one direction. In other words, this cable or rope 20 when engaged by the foot 28 of the dog 27 will be locked upon the wheel or pulley 18 and the latter will be held against rotation in one direction. Thus the anchor C, when within the rack and the locking activity of the dog 27 takes place upon the cable or rope 20, is held fixed within the rack and will not work out of or free from the said rack.

The mounting 26 is provided with a notched keeper block 32, its notch 33 being adapted to receive a latching toe 34 on the foot 28. This toe 34 when in the notch 33 holds the dog 27 against activity or clamping engagement with the cable or rope 20 so that it can be let out or pulled upon without interference by the dog 27.

The dog 27 is formed with a curved horn 35 at the heel end thereof and this horn is adapted to coact with the inner face of the bow of the boat A when the davit is inboard so as to force the foot 28 of the dog 27 into clamping engagement with the cable or rope 20 and thus holding the anchor C in the rack and in a fixed position within the boat.

Normally the anchor C is within the rack and the davit inboard, assuming the position as shown in Figure 3 of the drawings. In this position the anchor C is held fixed, being drawn in through the eye or ring 25 supported by the members 24 on the bracket 10. Now when it is desired to shift the anchor outboard, an operator or an attendant of the boat A pulls upon the cable or rope 20 causing the davit to swing arcuately and outwardly of the boat, bringing the said davit to the position as shown in Figure 1 of the drawings. The dog 27 being engaged with the cable or rope prevents the letting out of the anchor C when outboard of the boat so to release the dog 27 it is necessary to raise the cable or rope 20 from the position shown by full lines in Figure 1 to the position shown by dotted lines. In this manner the dog 27 is lifted causing the latching toe 34 to engage in the notch 33 in the keeper block 32 whence the cable or rope 20 becomes entirely free to be let out for the dropping of the anchor C outboard of the boat. There is no liability of the head 23 of the anchor C damaging the boat, either outboard or inboard, because the rack holds the anchor from making contact with the boat when the davit is moved outboard or inboard. Now when it is required to break anchor, the cable or rope 20 is pulled upon, drawing the anchor C into the rack and by continued pull upon the cable or rope 20, the davit will be swung inboard of the boat A and when this davit assumes the position as shown in Figure 3 of the drawings the horn 35 has made contact releasing the toe 34 from the notch 33 in the keeper block 32 and such dog 27 automatically clamps the cable or rope 20 fixing the anchor C within the boat, as is clearly exhibited in Figure 3 of the drawings. Thus manual handling of the anchor for the placing thereof outboard or inboard of the boat is entirely eliminated and when the said anchor is inboard it can not possibly pound the boat resulting in damage thereto, particularly when traveling in rough water.

The dog 27 through gravity assumes a clamping position with relation to the cable or rope 20 and the guide wheel or pulley 18 when the davit has been moved outboard, the said dog 27 being released as hereinbefore set forth while the davit is in outboard position. Now when the davit is inboard of the boat A the dog 27 is automatically operated for clamping action thereof with relation to the cable or rope 20 and the wheel or pulley 18.

The davit hereinbefore described is at all times under the control of an attendant or operator when within the boat A and the anchor can be dropped for anchoring purposes or the anchorage broken with dispatch and in convenient manner so that manual handling or lifting of the anchor for the placement thereof outboard or inboard is entirely dispensed with, the anchor being let out and drawn in through manipulation of the cable or rope 20 and is cast outboard or inboard automatically.

What is claimed is:

1. An anchor davit for boats, comprising a bracket swingable from the boat outboard and inboard thereof, a rack rigidly carried by the bracket at right angles thereto, and having at its outer end means for engaging the arms of an anchor, a pulley mounted on the bracket opposite the rack, a cable passing over the pulley and secured to the shank of an anchor, an arm rigidly carried by the bracket on the opposite side from the rack, a pivoted cam carried by the arm and engaging the cable on the pulley, whereby the inward movement of the cable draws the arms of the anchor against the rack and the continued movement thereof swings the bracket inboard and the arm supporting the bracket and with the anchor rigidly supported by the rack.

2. An anchor davit for boats, comprising a bracket swingable from the boat outboard and inboard thereof, a rack rigidly carried by the bracket at right angles thereto and having at its outer end means for engaging the arms of an anchor, a pulley mounted on the bracket opposite the rack, an arm rigidly carried by the bracket on the opposite side from the rack, a cable secured to the shank of the anchor and passing over the pulley and around the rigid arm carried by the bracket when the anchor is swung inboard, and means carried by the rigid arm for engaging the cable and locking it to the pulley.

ROBERT I. HOLGERSON.