A. L. HUNT & C. SAGEMILLER.

ANCHOR WINCH.

APPLICATION FILED MAY 18, 1914.

1,147,095. Patented July 20, 1915.

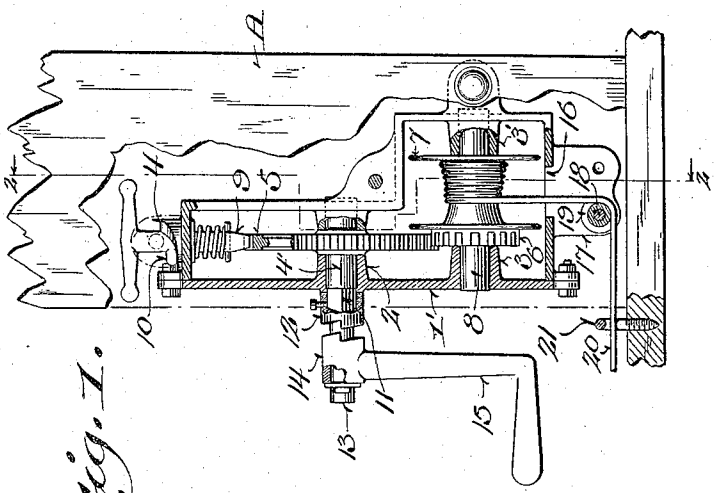


Fig. 1.

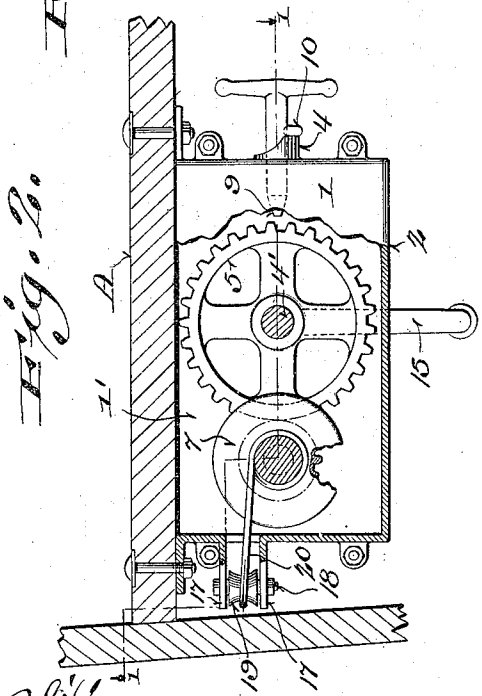


Fig. 2.

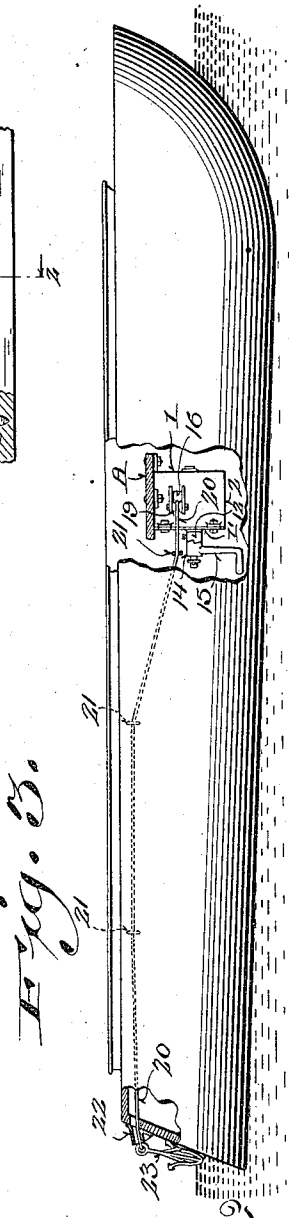


Fig. 3.

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UNITED STATES PATENT OFFICE.

ALBERT L. HUNT AND CONRAD SAGEMILLER, OF NEW LONDON, WISCONSIN.

ANCHOR-WINCH.

1,147,095. Specification of Letters Patent. Patented July 20, 1915.

Application filed May 18, 1914. Serial No. 839,239.

To all whom it may concern:

Be it known that we, ALBERT L. HUNT and CONRAD SAGEMILLER, both citizens of the United States, and residents of New London, in the county of Waupaca and State of Wisconsin, have invented certain new and useful Improvements in Anchor-Winches; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention has for its main object to provide a simple, economical and effective manually controlled anchor-raising and lowering winch for small craft, the device being conveniently attached midway of the boat, whereby access thereto may be had without moving from end to end of said boat as is ordinarily the case wherein a weighted line is utilized as an anchor, the same being dropped or pulled hand over hand.

Another object of our invention is to provide means whereby the centrally positioned winch may be adjusted to operate an anchor from either end of a boat.

With the above and other minor objects in view the invention consists in certain peculiarities of construction and combination of parts as hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings Figure 1 represents a sectional plan view of a winch embodying the features of our invention, the same being shown attached to the under side of a boat seat, the section being indicated by line 1—1 of Fig. 2; Fig. 2, a sectional elevation of the same, the section being indicated by line 2—2 of Fig. 1, and Fig. 3, a side elevation of a boat with parts broken away to more clearly illustrate the winch mechanism attached thereto.

Referring by characters to the drawings, A represents the seat of a boat to the under side of which is attached a housing 1 provided with alined pairs of journal boxes 2, 2, 3, 3, and a plunger-receiving aperture, which aperture terminates with a cam faced boss 4. The housing, as shown, is disposed transversely of the boat and revolubly mounted in one set of its journal-boxes is a drive-shaft 4′ carrying a toothed gear-wheel 5, which gear-wheel meshes with a pinion 6 that projects from one face of a reel 7, the same being mounted upon a driven shaft 8, which shaft is journaled in the boxes 3, the said reel being revoluble transversely of the boat to which the housing is attached. A spring-controlled locking-plunger 9 is mounted in the plunger aperture of the housing and extends through the boss 4, terminating with a handle, whereby the locking plunger may be manually operated. The plunger is also provided with a laterally extended finger 10, which engages the eccentric face of the boss 4, whereby the plunger may be retracted from locking position, it being understood that the end of said plunger is adapted to engage the interstices of the toothed gear-wheel 5 to lock said gear-wheel and its shaft against rotation. One end of the shaft projects through the cover-plate 1′ of the housing, the same being formed with a squared section 11 for the reception of a correspondingly square bored clutch collar 12, which collar is secured in its position by a set-screw. From the squared portion the shaft terminates with a circular end shank 13, upon which is loosely and slidably mounted the clutch-faced hub 14 of a crank 15, the clutch-face of said hub being adapted to engage the corresponding clutch-face of the collar, while end play in the opposite direction of said hub is limited by a washer and cotter-pin with which the shank 13 of the drive-shaft is provided.

One of the housing walls is formed with a chain or cable receiving mouth 16 having upper and lower lips 17 that project from the adjacent wall of said housing. These lips are formed with alined sets of trunnion apertures for the reception of an interchangeable trunnion 18 upon which is mounted a guide-sheave 19. The reel has secured thereto one end of a chain or cable 20, which cable passes through the mouth 16 and from thence over the guide-sheave 19 through a series of eyes 21 that project from the walls of the boat. The opposite end of the cable passes through an eyed bracket 22, which bracket, as shown in this exemplification of our invention, is fitted to an aperture that is formed in the stern wall of the boat, as best shown in Fig. 3. The said cable end, after being passed through the bracket, is attached to a suitable anchor 23. Should it be desired to attach the anchor to the bow end of the boat, a bracket 22, similar to the one shown, may be fastened in any suitable position at the bow for the reception of the anchor cable, and, in

the event of the anchor being positioned in the bow, as stated, the sheave 19 is shifted from right to left with respect to the cable mouth 16 and thus the direction of the cable is reversed and guided throughout in a similar manner to that mentioned in connection with the anchor being positioned at the rear of the boat.

In the operation of our winch mechanism, when the anchor is in the raised position shown in Fig. 3, the locking plunger 9 will prevent rotation of the gear connected windlass and, should it be desired to drop the anchor, the said locking plunger is retracted in opposition to its spring-control and given a partial turn, whereby it is locked in its disengaged position with relation to the gear-wheel 5. The windlass mechanism is thus freed, whereby it will revolve and permit the anchor to settle, attention being called to the fact that, in this unwinding action of the winch, there will be no rotation of the actuating crank, 15, due to the fact that it is free from clutching engagement with the drive-shaft. Should it be desired to raise the anchor, it is manifest that the crank is slid forward to effect a clutching engagement with the clutch-collar 12, whereby the operator may impart motion to the reel through its gear connection with the drive-shaft and, after the cable is completely wound to draw the anchor up to the position shown in Fig. 3, the plunger 9 is manipulated to cause its nose to effect a locking engagement with the juxtaposed interstice of the toothed gear-wheel 5.

We claim:

1. An anchor-winch comprising a housing provided with a mouth and a locking plunger aperture, a drive-shaft journaled in the housing having an end projecting through the same, a driven shaft journaled in the housing, a reel and pinion secured to the driven shaft, a gear-wheel secured to the drive-shaft in meshed engagement with the pinion, a clutch-collar secured to the projecting end of the drive-shaft, a slidable and revoluble crank mounted upon the end of said drive-shaft provided with a clutch hub adapted to engage the clutch-collar, lips extending from the housing mouth, a guide-sheave journaled between the lips, and a spring-controlled locking plunger mounted in the housing aperture engageable with the gear-wheel.

2. An anchor-winch comprising a housing having a cable-receiving mouth and a locking plunger aperture, a drive-shaft journaled in the walls of the housing having an end projecting through one wall of the housing, the projecting end being provided with a squared section, a driven shaft journaled in the walls of said housing, a reel and pinion secured to the driven shaft, a gear-wheel secured to the drive-shaft in mesh with the pinion, a collar secured to the squared section of the drive-shaft, a slidable and revoluble crank mounted upon the extreme end of the drive-shaft, the crank being provided with a clutch-faced hub for engagement with the clutch-collar, lips extending from the housing mouth having alined sets of apertures, a sheave provided with a trunnion for interchangeable engagement with the lip apertures, a boss extending from the wall of the housing about its plunger aperture, the boss being provided with a cam face, a spring-controlled plunger mounted in the aperture for engagement with the interstices of the gear-wheel, and a finger extending from the plunger for engagement with the cam face of the boss.

In testimony that we claim the foregoing we have hereunto set our hands at New London in the county of Waupaca and State of Wisconsin in the presence of two witnesses.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."