H. F. NORTON.

BOAT DAVIT.

APPLICATION FILED MAR. 29, 1911.

1,011,477. Patented Dec. 12, 1911.

Fig. 2.

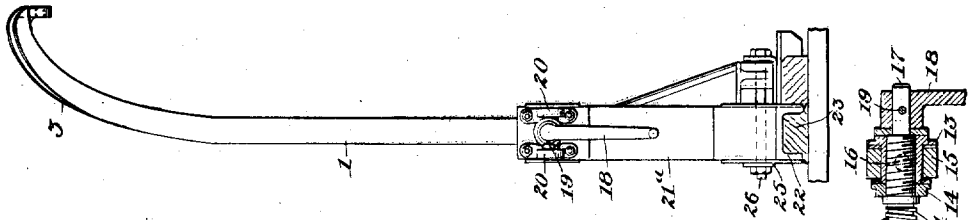


Fig. 3.

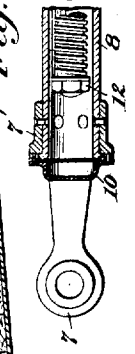
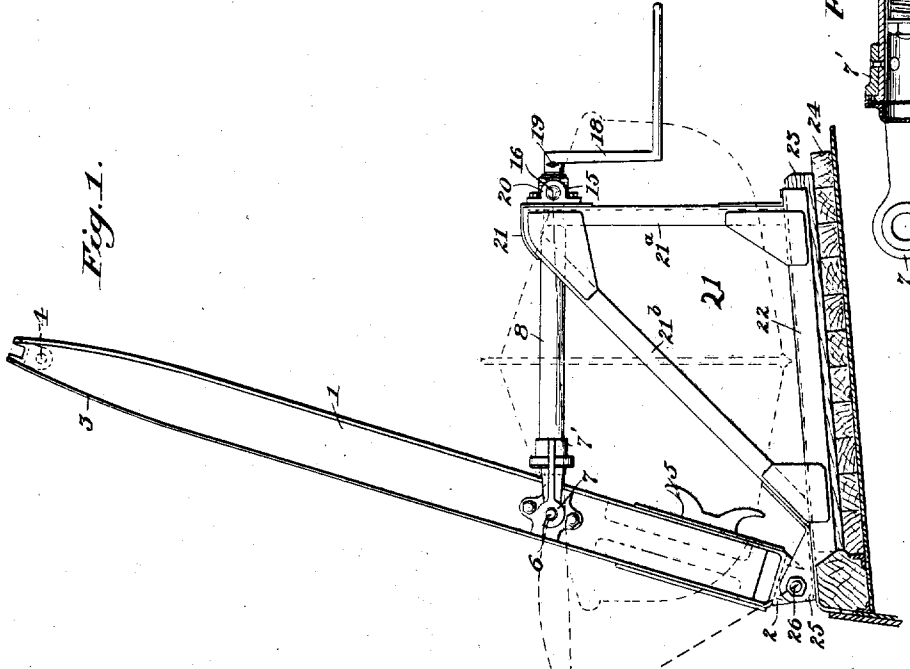


Fig. 1.



Witnesses:
R. S. Holsinger.
N. P. Leonard.

Inventor:
Harold F. Norton,
by Symmes, Townsend & Brickenstein,
Att'ys.

UNITED STATES PATENT OFFICE.

HAROLD F. NORTON, OF NEWPORT NEWS, VIRGINIA.

BOAT-DAVIT.

1,011,477. Specification of Letters Patent. Patented Dec. 12, 1911.

Application filed March 29, 1911. Serial No. 617,607.

To all whom it may concern:

Be it known that I, HAROLD F. NORTON, a citizen of the United States, residing at Newport News, in the county of Warwick and State of Virginia, have invented certain new and useful Improvements in Boat-Davits, of which the following is a specification.

This invention comprises a davit and mechanism for operating it to lift a boat from the deck of a vessel and swing it outboard into position to be lowered into the water.

The improved davit is a swinging arm of structural steel, pivoted at its lower end to the deck of the vessel at the gunwale, and having a curved upper end with a hole to receive the hook of the fall-block.

The davit is operated by hand-mechanism comprising a non-revoluble member pivoted to the davit between its ends and a revoluble member journaled in a bearing swiveled in a stool secured to the deck. One member carries a nut and the other member has a long screw entering the nut. The revoluble member has a long screw entering the nut. The revoluble member has a hand-crank on its outer end. The member with a nut is preferably tubular thus having the necessary strength to resist stresses of compression, tension and torsion, with minimum weight. The bore of the tube serves as a chamber to receive and protect the screw when the boat is stowed inboard, preventing the threads from being clogged with dirt and ice; it also holds a lubricant for the threads. The two interconnected members are pivoted to the davit and to the deck-stool, respectively, at about the same height, such as to bring the crank into position for easy operation, normally lying in a substantially horizontal position, oscillating through a short arc in use, and transmitting the power directly to the davit.

The apparatus is shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the davit and its operating mechanism; Fig. 2 is an end elevation of the same, viewed from inboard; and Fig. 3 is a sectional side elevation of the operating members, on a larger scale.

The apparatus illustrated comprises a davit-arm 1 of channel steel, pivoted at its lower end 2 to the deck of the vessel at the gunwale, and having a curved and narrowed upper end 3, the tip of which is bent downward and has a hole 4 to receive the hook of the fall-block. A cleat 5 for the block-rope is secured to the lower end of the arm. A cylindrical pivot 6 is fixed to the davit-arm toward its lower end, extending through a hole in the web of the channel-beam and projected therefrom at both ends. On these ends are swiveled the eyes 7 of a yoke carrying the non-revoluble operating member. This member is shown as a tube 8, one end of which is firmly riveted in a collar 7′ joining the arms of the yoke, while a long nut 9 is welded to its other end. A cap 10 closes the open end of the tube, to exclude water and dirt and retain a lubricant. The nut 9 receives the long screw of the other operating member 11, a stop-nut 12 being fixed on the inclosed end of the screw. A bushing 13 is fixed on the revoluble member 11 near its outer end, being screwed thereon and held by a check-nut 14. This bushing is journaled in the swivel-piece 15 having trunnions 16. The reduced outer end 17 receives a hand-crank 18 removably held by a screw-pin 19. The trunnions 16 are journaled in bearings 20, secured on the deck-stool 21. This stool is built of structural steel, and comprises a vertical member 21^a and an inclined member 21^b, secured together at their upper ends and riveted at their lower ends to a channel-beam 22, inclosing a wood beam 23 which is secured to the deck-sheathing 24. A bracket 25 is secured to the channel-member 22, near the gunwale and a bolt 26 serving as the pivot for the lower end of the davit extends through and is clamped in the two wings of this bracket.

A pair of these davits and operating mechanisms constitutes a quick and positive device for unshipping and lowering a boat, being readily operated by two men, one at each crank. The apparatus is simple, light and relatively inexpensive. The davit is substantially straight and is entirely supported by a pivot at the gunwale, quickly and directly transferring the boat outward to the maximum distance. The apparatus is readily built of ordinary materials, including structural steel, and the necessary machine work is reduced to the minimum amount. The apparatus may be completely assembled in the shop and is readily attached to the ship, the weight being largely carried at the gunwale. The channel of the deck-stool supplements the athwartship

strength. As the davit is shifted outward, the boat rises slightly and is lifted out of the chocks. The fall-rope being attached to a cleat on the davit does not pull through the blocks as the boat is swung out.

I claim:

1. A davit supported by a pivot at its lower end, and means for oscillating said davit, comprising two substantially horizontal members connected by a nut and long screw, one member being non-revoluble and directly swiveled to said davit intermediate its ends, the other member being revoluble, and a fixed deck-stool having a swiveled bearing in which said revoluble member is journaled, its outer end extending through the bearing and carrying a crank.

2. A davit supported by a pivot at its lower end, and means for oscillating said davit, comprising two substantially horizontal interconnected members, one member being non-revoluble and directly swiveled to said davit intermediate its ends, the other member being revoluble, one member being tubular and having a nut at one end, the other member having a long screw engaging said nut, and a fixed deck-stool having a swiveled bearing in which said revoluble member is journaled, its outer end extending through said bearing and carrying a crank.

3. A davit supported by a pivot at its lower end, a pivot on each side of said davit intermediate its ends, a yoke swiveled on said pivots, a substantially horizontal tube fixed at one end to said yoke and having a nut at its other end, a substantially horizontal threaded shaft engaging said nut, a fixed deck-stool having bearings, a swivel-piece pivoted in said bearings, an opening in said swivel-piece in which said threaded shaft is journaled, and a crank on the outer end of said shaft.

In testimony whereof, I affix my signature in presence of two witnesses.

HAROLD F. NORTON.

Witnesses:
E. N. COONBROOKS,
W. GATEWOOD.

Correction in Letters Patent No. 1,011,477.

It is hereby certified that in Letters Patent No. 1,011,477, granted December 12, 1911, upon the application of Harold F. Norton, of Newport News, Virginia, for an improvement in "Boat-Davits," an error appears in the printed specification requiring correction as follows: Page 1, lines 25–26, strike out the words "The revoluble member has a long screw entering the nut."; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 16th day of January, A. D., 1912.

[SEAL.]

C. C. BILLINGS,
Acting Commissioner of Patents

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