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ANCHORING DEVICE FOR BOATS.

APPLICATION FILED NOV. 15, 1913.

1,109,052. Patented Sept. 1, 1914.

Fig. 1

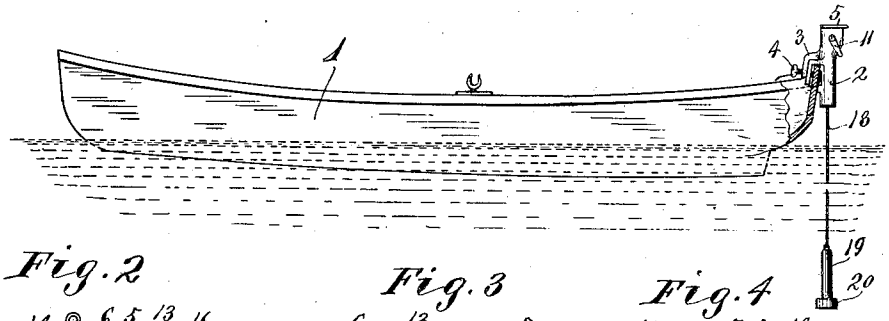


Fig. 2

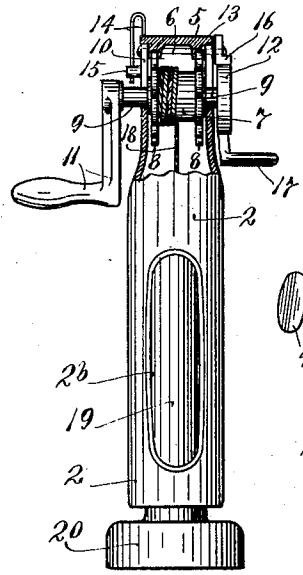


Fig. 3

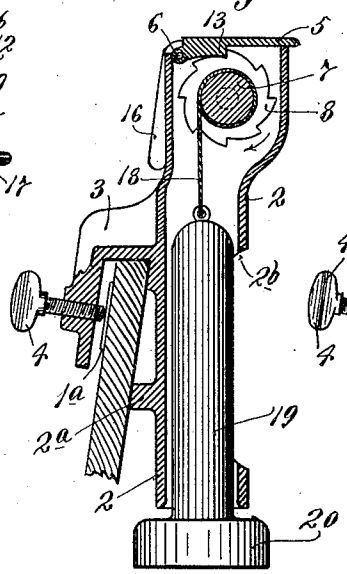


Fig. 4

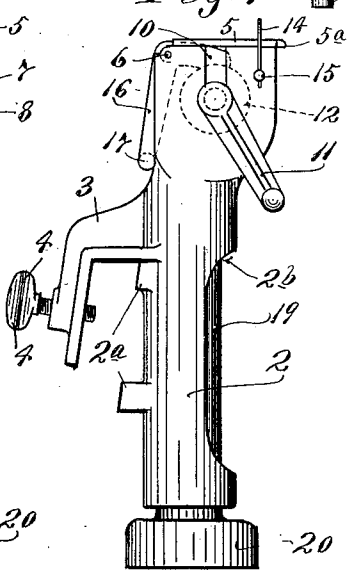
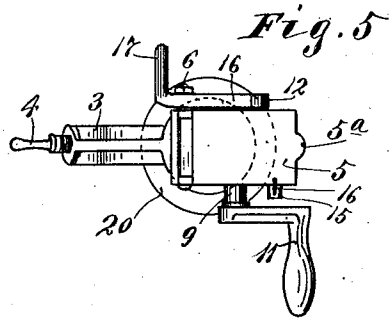


Fig. 5



Witnesses.
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UNITED STATES PATENT OFFICE.

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ANCHORING DEVICE FOR BOATS.

1,109,052. Specification of Letters Patent. Patented Sept. 1, 1914.

Application filed November 15, 1913. Serial No. 801,181.

To all whom it may concern:

Be it known that we, JOHN EDMAN and EARL ECK, citizens of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Anchoring Devices for Boats; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has for its object to provide an extremely simple and highly efficient device for anchoring row boats and other small vessels, especially adapted for the use of fishermen and hunters, and provides means whereby the boats may be quickly and securely anchored and the anchor pulled up when it is desired to move the boat.

To the above ends, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings: Figure 1 is a view in side elevation, showing a row boat with our improved anchoring device applied thereto, some parts being broken away; Fig. 2 is a rear elevation of the anchoring device removed from the boat, some parts being broken away and some of the exposed parts being shown in section; Fig. 3 shows the anchoring device partly in vertical section and partly in full lines; Fig. 4 shows the anchoring device in side elevation; and Fig. 5 is a plan view of the same.

The boat which, as stated, is of the row boat type, is indicated as an entirety by the numeral 1. Detachably secured to the stern of the boat is a vertically extended tubular body casting 2 located outside of said boat and having a laterally and downwardly projecting bracket 3 arranged to embrace the upper portion of the boat transom. A clamping screw 4 has screw threaded engagement with the downwardly projecting end portion of the bracket 3, and its inner end impinges against a wearing plate 1^a secured to the inner face of the transom of the boat 1. Spacing lugs 2^a are cast integral with the body casting 2 and are arranged to engage the outer face of the transom of the boat 1, thereby holding the body casting 2 in a vertical position. On the opposite side of the body casting 2 from the spacing lugs 2^a, said casting is cut away at 2^b, in order to lighten the same.

The upper end of the body casting 2 is normally closed by a cover 5 secured to the said casing by a long hinge pin 6. As best shown in Fig. 5, the front edge of the cover 5 is provided with a projecting lip 5^a by which said cover may be raised. Journaled within the upper end of the body casting 2 is a windlass drum 7 having, at each end, a ratchet wheel 8 affording the side flanges of said windlass drum. The trunnions 9 of the windlass drum 7 are loosely journaled in open seats 10 formed in the upper horizontal edge portions of the sides of the body casting 2. To the trunnions 9 are secured, respectively, a hand crank 11 and a brake wheel 12. Integrally formed on the under side of the cover 5 is a pair of depending retaining dogs 13 coöperating with the ratchet wheels 8 to hold the windlass drum 7 in different set adjustments. These retaining dogs 13 are yieldingly held engaged with the ratchet wheels 8 by a U-shaped spring 14 having a long and a short leg. The long leg is anchored to a projection 15 on one side of the body casting 2, for a limited rotary movement therein. The free end of the short leg engages and rests upon the upper side of the cover 5. Obviously, this spring 14 will yield under the rotation of the ratchet wheels 8, when rotated in the direction of the arrow marked thereon in Fig. 3, to permit the retaining dogs 13 to move into and out of engagement with the teeth of said ratchet wheels. When it is desired to open the cover 5, the spring 14 may be turned out of engagement with the said cover by rotating the long leg thereof in the projection 15.

A brake lever 16 in the form of a bell crank is pivotally mounted on the hinge pin 6. The short arm of this brake lever overlies and is arranged to be moved into and out of frictional engagement with the brake wheel 12 and the long arm thereof is provided with a hand piece 17. This brake lever 16 also secures the windlass drum 7 against removal from the open seats 10. To remove the windlass drum 7 from said seats 10, it is necessary to first remove the brake lever 16 from the hinge pin 6.

Attached to the windlass drum 7 is a cable

18, preferably of wire, to the lower end of which is secured the reduced upwardly projecting stem 19 of a heavy weight or anchor 20. When the anchor 20 is lifted to its uppermost position, the stem 19 enters the lower end portion of the body casting 2 and is securely held against swinging movement thereby. In this position of the anchor 20, the same will not strike an obstruction or engage the ground when the boat is dragged either onto the dock or the shore.

Obviously, the anchor may be let down by lifting the cover 5 a distance sufficient to carry the retaining dogs 13 out of engagement with the teeth of the ratchet wheels 8. The speed at which the anchor 20 is lowered may be regulated by the brake lever 16.

What we claim is:

1. The combination with a boat, of an anchoring device, comprising an anchor support detachably secured to said boat, an anchor, and means carried by said support for moving said anchor to and from operative positions.

2. The combination with a boat, of an anchoring device, comprising an anchor support detachably secured to said boat, a crank equipped drum journaled on said support, and an anchor connected to and operated by said crank equipped drum.

3. The combination with a boat, of a supporting casing detachably secured to said boat, a crank equipped windlass drum journaled within said casing, a cable attached to said windlass drum and extending downward through said casing, and an anchor attached to the lower end of said cable and movable into and out of said casing.

4. The combination with a boat, of a supporting casing secured to said boat, a crank equipped windlass drum journaled in open seats in said casing and having a friction wheel, a brake device coöperating with said friction wheel and arranged to hold said windlass drum against removal from said open seats, a cable attached to said windlass drum, and an anchor attached to the lower end of said cable.

5. The combination with a boat, of a supporting casing secured to said boat, a crank equipped windlass drum journaled in open seats in the upper end of said casing, a pawl and ratchet device for holding said windlass drum in different set adjustments, a friction wheel on said windlass drum, a brake device coöperating with said friction wheel and arranged to hold said windlass drum against removal from said open seats, a cable attached to said windlass drum and extending downward through said casing, and an anchor attached to the lower end of said cable and movable into and out of said casing.

6. The combination with a boat, of a supporting casing secured to said boat, a crank equipped windlass drum journaled within said casing and having a ratchet wheel, a cover normally closing said casing and having a retaining dog coöperating with said ratchet wheel, a cable attached to said windlass, and an anchor attached to the lower end of said cable.

7. The combination with a boat, of a supporting casing secured to said boat, a crank equipped windlass drum journaled in the upper end of said casing and having a ratchet wheel and a friction wheel, a cover normally closing the upper end of said casing and having a retaining dog coöperating with said ratchet wheel, a brake device secured to said casing and coöperating with said friction wheel, a cable attached to said windlass drum, and an anchor attached to the lower end of said cable.

8. The combination with a boat, of a supporting casing secured to said boat, a crank equipped windlass drum journaled in the upper end of said casing and having a ratchet wheel and a friction wheel, a cover normally closing the upper end of said casing and having a retaining dog coöperating with said ratchet wheel, a brake device secured to said casing and coöperating with said friction wheel, a cable attached to said windlass drum, an anchor attached to the lower end of said cable, and a yielding latch for normally holding said cover in a closed position but permitting said retaining dog to move into and out of engagement with said ratchet wheel.

9. The combination with a boat, of a supporting casing detachably secured to said boat, a crank equipped windlass drum journaled in open seats in the upper end of said casing and having a ratchet wheel and a friction wheel, a cover normally closing said casing and having a retaining dog coöperating with said ratchet wheel, a brake device coöperating with said friction wheel and arranged to hold said windlass drum against removal from said open seats, a cable attached to one end of said windlass drum and extending downward through said casing, and an anchor attached to the lower end of said cable and movable into and out of said casing.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN EDMAN.
EARL ECK.

Witnesses:
EMILY MAY KING,
HARRY D. KILGORE.