R. W. HARRISON.
Dredge-Chock.

No. 210,323. Patented Nov. 26, 1878.

Fig. 1.

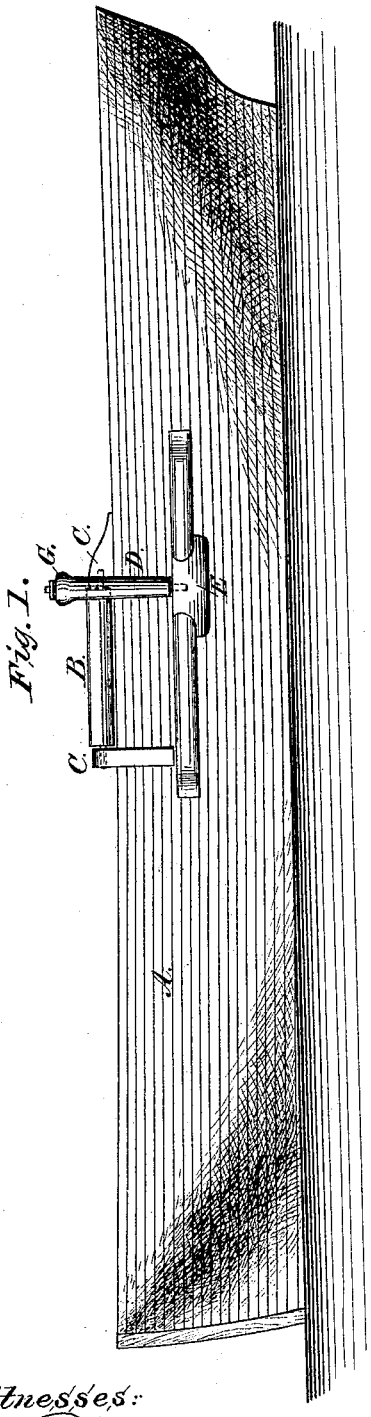

Fig. 2.

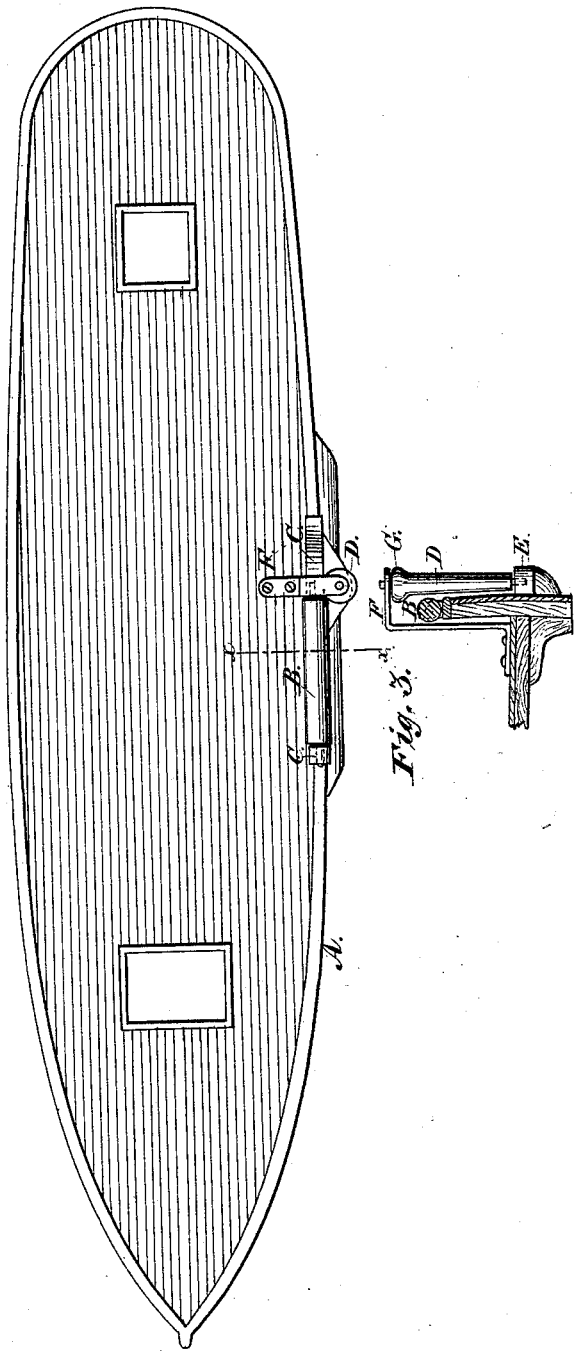

Fig. 3.

Witnesses:
T. C. Brecht.
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UNITED STATES PATENT OFFICE.

ROBERT W. HARRISON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN DREDGE-CHOCKS.

Specification forming part of Letters Patent No. **210,323**, dated November 26, 1878; application filed November 2, 1878.

To all whom it may concern:

Be it known that I, ROBERT W. HARRISON, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Dredge-Chocks, of which the following is a specification:

This invention relates to certain improvements in dredge-chocks.

The ordinary dredge-chock consists of a horizontal roller journaled in bearings attached to the side of the vessel, a vertical standard being secured to the side of the vessel, at the rear of the roller, over which the dredging-rope drags. This form of chock has proved objectionable, for the reason that the friction of the rope in dragging over the standard rapidly wears the rope and adds materially to the labor of dredging.

Attempts have been made to remedy this objection by constructing the chock with sheaves at the ends of the chock-block, with sheaves mounted on vertical axles, so arranged as to turn freely by the friction of the rope, and save it from being chafed or worn, and lessen the labor required to operate it. This has proved objectionable, as the rope or line is liable to bind between the horizontal roller and the vertical sheaves, materially interfering with the dredging operation.

It is the object of the present invention to obviate all of the objections above enumerated, and provide a chock over which the rope or line will pass freely with little or no friction, without any liability to bind; and, further, to provide for the removal of a portion of the chock when not in use, so as not to interfere with the sailing of the vessel.

My invention consists in the combination, with the horizontal roller of a dredge-chock journaled to the gunwales of a vessel, of a vertical roller having a head or shoulder at its upper end, and removably journaled at one end of the horizontal roller, and having its ends projecting above and some distance below the same, whereby the rope or line can ride on the vertical roller both above and below the axis of the horizontal roller.

In the drawing, Figure 1 represents a side elevation of my improved chock, and Fig. 2 a top view thereof. Fig. 3 is a section on line *x x*, Fig. 2.

The letter A represents the side of the vessel, and B a horizontal roller, mounted in bearings C C secured to the vessel. The letter D represents a vertical roller, constructed of cast-iron and mounted upon a vertical axis of wrought-iron, secured removably at its lower end to a block, E, secured to the side of the vessel. The upper end of said axis is secured in a removable bracket, F, adapted to be fastened to the deck or other portion of the vessel.

At the upper end of the vertical roller is formed a shoulder, G, which prevents the rope or line from riding off the roller.

It should be observed that an essential and prominent feature of my invention consists in so arranging the vertical roller with respect to the horizontal roller that the vertical roller extends both above and below the latter, whereby the rope or line not only can play on the vertical roller above the horizontal roller, but also below the latter, such being an important feature and desirable, owing to the various movements and situations of the vessel; and, further, an essential feature consists in providing the upper end of the vertical roller with an enlarged head or shouder, in order to effectually prevent the rope or line from riding off the roller; and, further, the latter, being removably journaled in place, can be readily detached when not required for use, so as not to interfere with the sailing of the vessel.

The operation of my invention will be apparent from the above description. The rope or line passes over the horizontal roller as usual, and backward over the horizontal roller, which turns as said rope or line is paid in or out, thus lessening the friction and the consequent wear of the rope or line, and materially diminishing the labor of dredging.

When the chock is not in use the vertical roller is removed, so as not to interfere with the sailing of the vessel.

What I claim is—

The combination, with the horizontal roller of a dredge-chock journaled to the gunwale of a vessel, of a vertical roller having a head or shoulder at its upper end, and removably journaled at one end of the horizontal roller, and having its ends projecting above and some distance below the same, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

ROBERT W. HARRISON.

Witnesses:
JOHN H. FELTHOUSEN,
JOHN KRAMER.