

(No Model.)

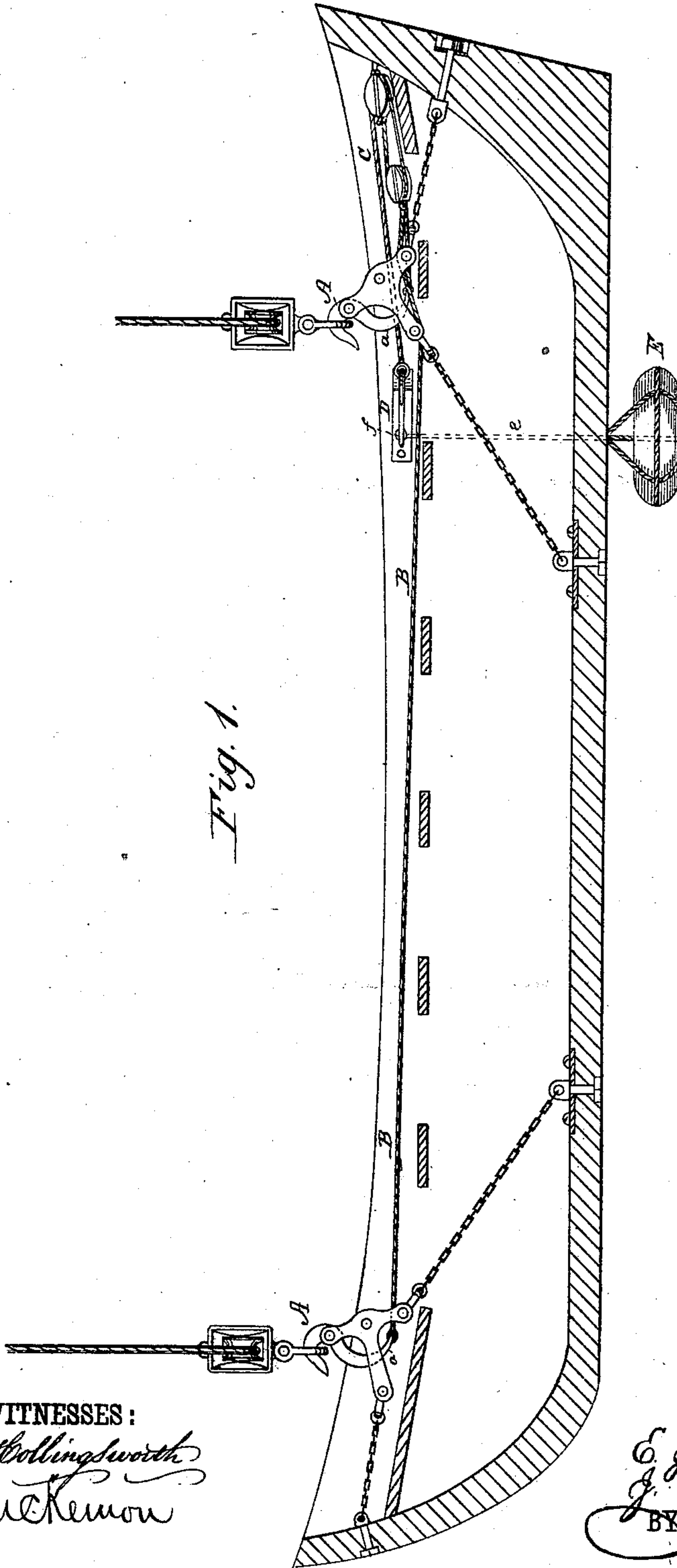
E. J. HILL & J. L. CLARK.

3 Sheets—Sheet 1.

BOAT DETACHING APPARATUS.

No. 272,253.

Patented Feb. 13, 1883.



WITNESSES:
W. W. Hollingsworth
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INVENTOR:
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(No Model.)

3 Sheets—Sheet 2.

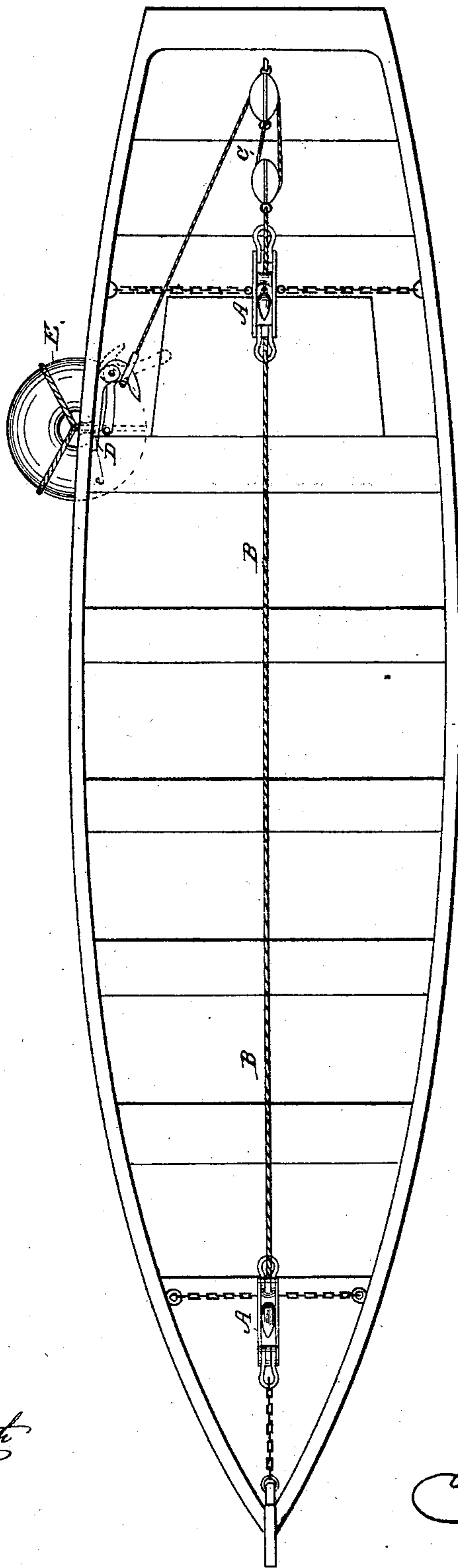
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Fig. 2.



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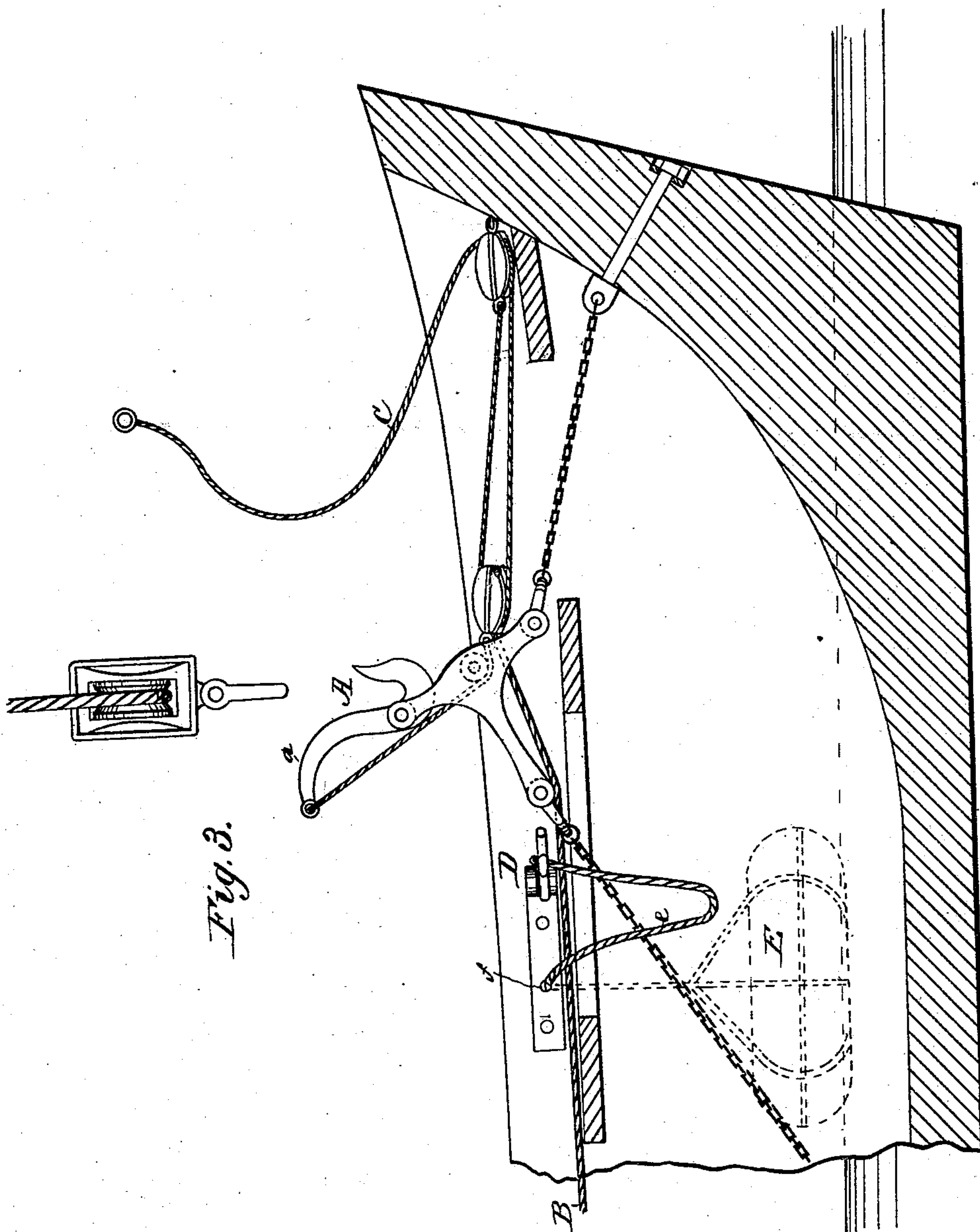
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UNITED STATES PATENT OFFICE.

EDWARD J. HILL AND JOSIAH L. CLARK, OF WESTMINSTER, ENGLAND.

BOAT-DETACHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 272,253, dated February 13, 1883.

Application filed September 4, 1882. (No model.) Patented in England December 9, 1881, No. 5,380; in France June 9, 1882, and in Belgium June 10, 1882.

To all whom it may concern:

Be it known that we, EDWARD JACOB HILL and JOSIAH LATIMER CLARK, of Westminster, England; have invented a new and useful Improvement in Apparatus for Detaching Boats, Buys, and other Floating Objects; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this application.

Our invention relates to an improved method of disengaging boats and other floating objects—such as bouys—when lowered at sea, by the employment of a float suspended from the boat or buoy, which float, as soon as it reaches the water, causes the disengagement of the boat or other object. We generally employ this float in conjunction with the ordinary and well-known slip-hooks, or with other similar contrivances, such as are used for disengaging boats from ships. In conjunction with this float we usually employ a third slip-hook or trigger of small dimensions, which serves as the attachment by which the ordinary slip-hooks are held and released; or in some cases we allow the float-line itself, when raised by the water, to slacken out the disengaging-line without the intervention of the third trigger. In one form of apparatus we suspend the boat on two single slip or tumbler hooks which are fixed in the ends of the boat and are connected, and at the same time prevented from releasing by a rope or chain which is tightened by means of a small tackle-line, and while so held the hooks cannot turn over and become disengaged. This connecting rope or chain is attached at one end to the slip-hook in the bow and is led to the other end of the boat behind the after slip-hook, (where it forms a bight,) and its other end is carried back to the after slip-hook and attached to it in the usual way. The bight of this rope is constantly kept tight by means of the small tackle-line. The free end of this tackle-line, instead of being hitched on a cleat in the usual way, is led to a third slip-hook or trigger fixed at any convenient point aft, and this smaller slip-hook is in turn held closed by the slight strain caused by the weight of a float suspended on a line. The float hangs a little below the bottom of the boat, and as soon as it reaches the water, the

weight being taken off, it allows the small slip-hook to disengage itself, slackening out the small tackle-line, and this, taking the strain off the connecting rope or chain, insures the disengagement of the other hooks. The third slip-hook may be kept locked until the boat is ready to be lowered.

It is evident any form of disengaging apparatus may be so arranged as to work with a float in the manner above described; and it is also evident that the liberating float may be made in different forms, and may be attached to the boat by hinges or guides, or it may assume the form of a plunger working up and down in a tube or well rising from a hole in the bottom of the boat.

In the accompanying drawings we have illustrated our invention, by way of example, as applied to a ship's boat in which the ordinary slip-hook is employed; but we would have it understood that we do not limit ourselves to this particular form of hook, and that the invention is equally applicable to buoys and other floating objects which require to be lowered at sea by means of tackle.

Figure 1 is a longitudinal section of a ship's boat. Fig. 2 is a plan of the same, and Fig. 3 is a longitudinal section of a part of a ship's boat on an enlarged scale.

A A are slip or tumbler hooks pivoted in frames, attached by slings or otherwise to the bow and stern of the boat in the usual manner. They are of ordinary and well-known construction, and therefore need no particular description, as their action will be apparent from the drawings. These hooks are shown in Figs. 1 and 2 in position for suspension from the lowering-tackle, and are retained in that position by a rope or chain, B, attached to their long arms *a*, and by a small tackle-line, C, attached to a bight of said rope, so as to keep it constantly taut and act equally on both slip-hooks. This tackle-line C passes round sheaves and through guide-eyes, and is hooked onto a third slip-hook or trigger, D.

E is a float suspended overboard by a line, *e*, passing through a hole, *f*, in the gunwale of the boat and attached to the slip-hook or trigger D, the weight of this float being sufficient in the air, but insufficient in the water, to prevent the slip-hook D releasing the line C under

the strain due to the weight of the suspended boat. In practice, a cork float resembling a life-buoy would be employed by preference, and the float would hang a short distance below the boat, so that it shall reach the water and relieve the slip-hook D of its weight before the boat is water-borne, thus allowing the weight of the still suspended boat to act on the slip-hooks A and cause them to become dis-
10 engaged, as shown in Fig. 3.

What we claim is—

1. The combination, with slip or disengaging hooks, operating substantially as specified, of a float or buoyant weight controlling another slip-hook or trigger to which the suspension hooks are connected, whereby they are automatically released at the proper moment, substantially as herein shown and described.
2. The combination, with the slip-hooks A,

adapted to be attached to a boat, and the ropes 20 or chains B C, of the slip-hook D, adapted to be attached to the side of the boat, and the buoy E, connected to said slip-hook D by cord or chain e, substantially as herein shown and described.

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