

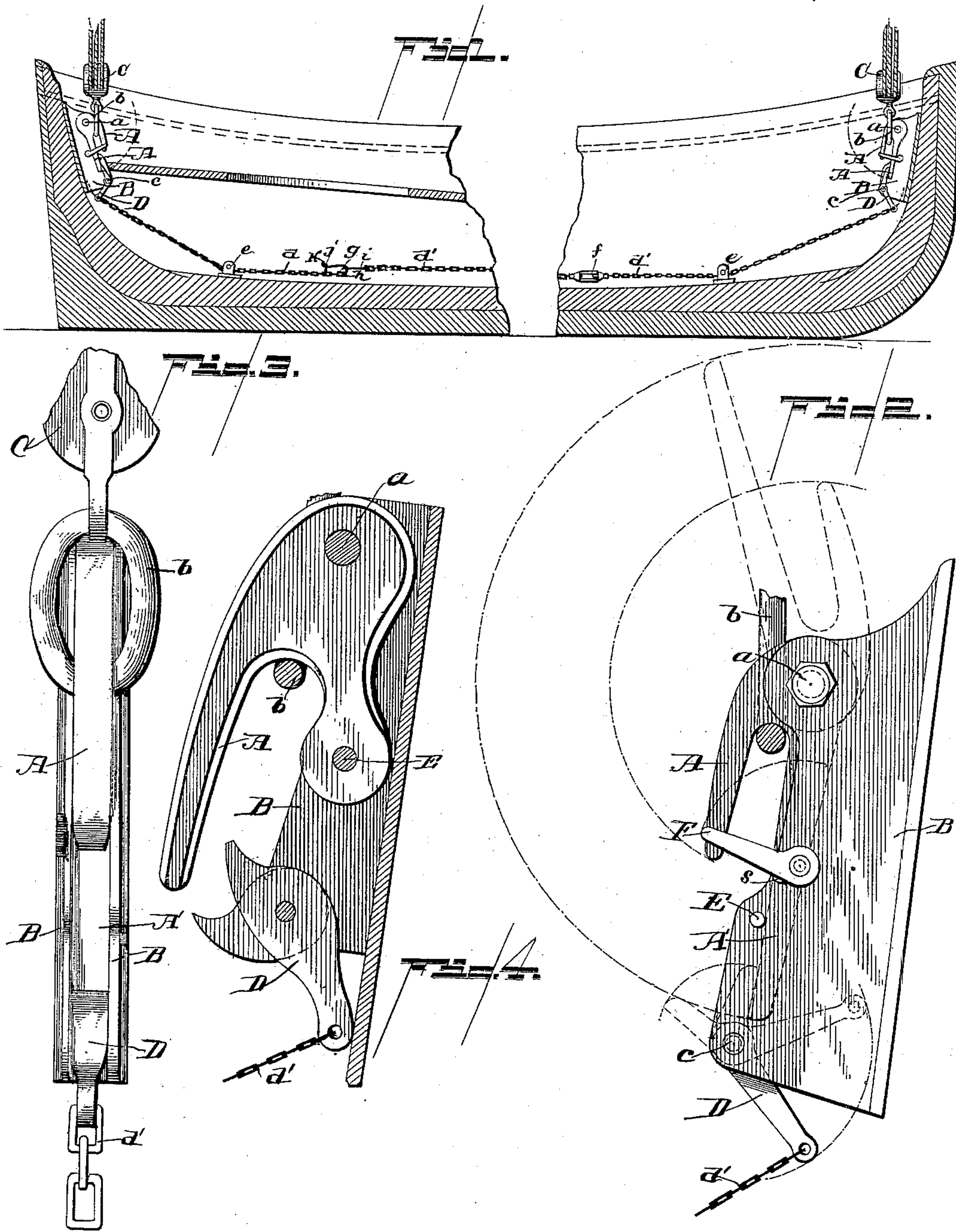
(No Model.)

R. M. G. BROWN.

BOAT DETACHING APPARATUS.

No. 378,763.

Patented Feb. 28, 1888.



WITNESSES.

Edwin L. Yewell,

Well a prok

INVENTOR.

R. M. G. Brown,
by Manuel S. Saly,
his Attorney.

UNITED STATES PATENT OFFICE.

ROBERT M. G. BROWN, OF THE UNITED STATES NAVY.

BOAT-DETACHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 378,763, dated February 28, 1888.

Application filed October 27, 1887. Serial No. 253,520. (No model.)

To all whom it may concern:

Be it known that I, ROBERT M. G. BROWN, of the United States Navy, and a resident of the city of Morgantown and State of West Virginia, have invented a certain new and useful Improvement in Boat-Detaching Apparatus, of which the following is a specification.

It is my object in this invention to obtain a boat-detaching apparatus which will be certain and sure in its action, and which can be operated with ease and celerity. It is principally characterized by the combination of a reversible hook having a retaining-shank or tail-piece with a locking trigger or lever which engages the said shank or tail-piece when the hook is in position to receive the boat-supporting block, and is adapted to hold said hook in that position. As soon as the trigger is released, the hook is free, and by the weight of the boat the latter will reverse and thus release the block. Two of these hooks are employed—one at the bow and one at the stern of the boat—and their triggers are so connected that the two will be released simultaneously. The nature of my improvement can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a general view in side elevation of the apparatus, the boat being shown in section. Fig. 2 is a side elevation, on an enlarged scale, of one of the hooks and the parts in connection with which it operates. Fig. 3 is a front elevation of the same. Fig. 4 is a sectional view of a modification, hereinafter more particularly referred to.

I will first describe the construction and arrangement of the hook and the parts in connection with which it operates.

The hook itself is shown at A. It is pivoted or hinged between the cheeks of a suitable frame or casting, B, the pivot being indicated at *a*. The hook is approximately of U form, pivoted at the bend a little to one side of the point where the ring *b* of the lower block, C, of the suspending-tackle meets it. The limb of the hook on the other side of the pivot from the hook proper has the form of a shank or tail-piece, A', which, when the hook is in position to receive and hold the ring of the block, extends down between the cheeks of the casting or frame B, as seen in full lines in Fig. 2.

At the lower end of the frame B is a lever or trigger, D, pivoted at *c* between the cheeks of the casting, and so placed that when the shank of the hook is in the position indicated in full lines in Fig. 2 the said trigger can be moved, so as to cause one of its arms to overlap the shank. When the trigger is located or secured in this position, the hook will be immovable. Two of these hooks or triggers are used—one at the bow and one at the stern of the boat, as indicated in Fig. 1. Various means manifestly can be employed for locking the triggers in position. One convenient means for the purpose, which will permit of the necessary simultaneous release of the triggers, is illustrated in Fig. 1. The outer arm of each trigger is connected to a chain, *d d'*, which extends under "fair-leaders" or guide-pulleys *e* from end to end of the boat, and is provided with a turn-buckle, *f*, so as to lengthen or shorten it, as desired. At a convenient point between its ends the chain is divided, and at this point its two parts *d d'* are united by a pelican-hook, *g*, loosely connected to the end link, *h*, of one of the parts—as, for instance, *d*. In order to unite the parts, the hook is first passed through the adjoining end link, *i*, of the other part, *d'*. A loose link, *j*, on part *d* is slipped over its end, and then through the end which projects beyond link *j* is passed a safety-pin, *k*. The chain being adjusted to the proper length, it will be seen that when its two parts are drawn together and united by the pelican-hook the trigger D will be moved into position to engage the shanks of the hooks A, and will be locked in that position, the safety-pin *k* preventing accidental detaching. When the boat is lowered and ready to be detached, the safety-pin *k* is removed, and the link *j* is slipped off from the pelican-hook by hand. The parts of the chain are now free to separate, the triggers are released, and, by reason of the weight of the boat, the hooks A will reverse, so as to release the blocks, the hooks and triggers assuming the position indicated by dotted lines in Fig. 2.

A harbor-pin, E, for use in port, can be inserted through the cheeks of the casting B and passed through or over the shank A, so as to lock the hook in place, and thus make it a fixture and not reversible.

A loosely-pivoted safety-latch, F, can be combined with the hook, if desired. This latch drops by gravity until it brings up against a suitable stop, s. The latch can be pivoted 5 to the frame B, as in Fig. 2, or to the trigger D, as in Fig. 4. It readily lifts to let the ring of the block pass up into the hook, and then drops down again into position to prevent the ring from becoming accidentally unhooked.

10 The fair-leaders can be dispensed with, if desired, and the chain *d d'* led direct from hook to hook.

Having now described my improvement and the manner in which the same is or may be 15 carried into effect, what I claim herein as new and of my own invention is—

1. The U-shaped reversible hook consisting of the hook proper, A, and the shank or tail A', in combination with the pivoted trigger

overlapping the shank and normally pressed 20 by said shank outwardly, or in a direction to release the hook, and trigger-locking mechanism, by which the trigger is held in place against said pressure, as hereinbefore set forth.

2. The two pivoted reversible hooks A A', 25 secured to opposite ends of the boat, in combination with the two pivoted trigger-levers, one for each hook, and trigger-releasing mechanism, whereby said trigger-levers are simultaneously operated to release their hooks, as 30 and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 24th day of October, A. D. 1887.

ROBERT M. G. BROWN.

Witnesses:

EWELL A. DICK,
MARVIN A. CUSTIS.