(No Model.)

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

BOAT DETACHING APPARATUS.

No. 266,150. Patented Oct. 17, 1882.

Fig. 1.

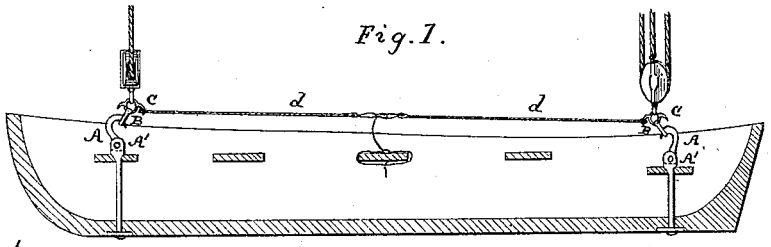


Fig. 4.

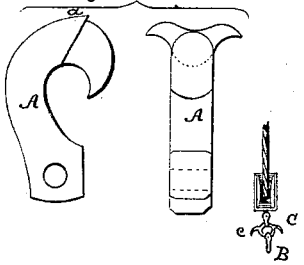


Fig. 5.

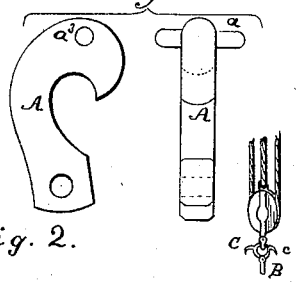


Fig. 2.

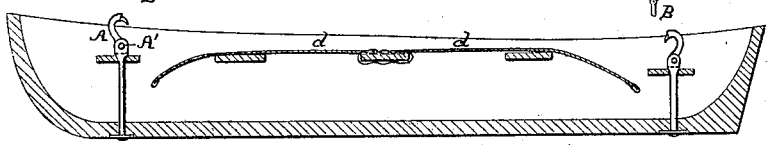


Fig. 6.

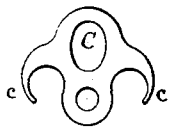


Fig. 7.

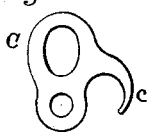


Fig. 8.

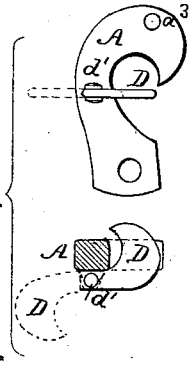
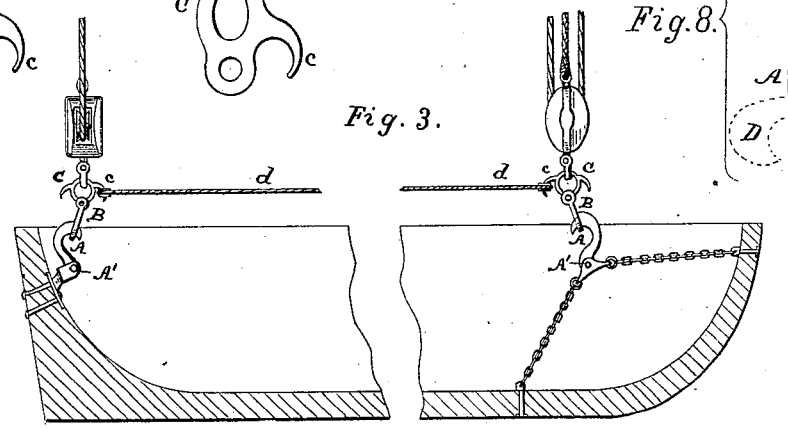


Fig. 3.



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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. 266,150, dated October 17, 1882.

Application filed June 18, 1881. (No model.) Patented in England September 26, 1879, No. 3,887; in France March 25, 1880, No. 135,777, and in Belgium March 30, 1880, No. 51,002.

To all whom it may concern:

Be it known that we, EDWARD JACOB HILL and JOSIAH LATIMER CLARK, both of Victoria Street, in the city of Westminster, England, have invented certain new and useful Improvements in Apparatus for Suspending and Detaching Boats and other Objects, of which the following is a specification.

Our invention relates to improvements in apparatus for suspending and detaching boats and other objects; and it consists in constructing the hooks by which the boats are suspended with their upper or curved part swelled into V or horn shaped lugs provided with downwardly-retreating faces, whereby the hooks are prevented from slipping through the rings, links, or shackles and the latter are held in a forwardly-inclined position.

In the accompanying drawings the invention is illustrated as applied to a ship's boat.

Figure 1 represents a longitudinal section of a ship's boat with the improvements applied, showing the boat hanging from the davit-tackles. Fig. 2 represents the same boat as waterborne and disengaged from the tackles. Fig. 3 represents the two ends of a boat with their respective gears drawn to a larger scale, the hooks being attached to the boat in different ways. Figs. 4 and 5 show side and edge views of slightly different forms of hooks. Figs. 6 and 7 represent face views of alternative forms of hook-links by which the ring, link, or shackle is connected to the tackle-block. Fig. 8 shows a side view and horizontal sections of one of the forms of hooks above described with a safety device applied.

A is the hook, B the ring-link or shackle, and C the hook-link. A hook A is attached at each end of the boat by a keel-bolt, as in Figs. 1 and 2, or by a crutch-bolt, as at the stem end, Fig. 3, or by slings, as at the bow end in the same figure. Each hook A is placed in an inverted position, with its point toward the middle of the boat. It is connected to the bolt or sling by which it is attached to the boat preferably by a pivot-joint at, A′, upon which it is capable of movement in the direction of the plane of the hook to an extent not exceeding fifteen or twenty degrees. These hooks may be of slightly different forms to accomplish the same object, and according to the form of ring, link, or shackle used in connection therewith. In Fig. 4 the top of the hook is forged with a pair of upwardly and laterally projecting horns, *a*, these horns being made shorter or longer, according as a ring, link, or shackle is used. In Fig. 5 a cross-pin, *a*, is passed through a hole in the head of the hook and projects at either side to serve the same end.

To prevent the ring, link, or shackle from becoming prematurely disconnected before the boat is properly lowered, a locking-claw may be jointed to the back or side of the hook, so as to work horizontally and pass round beneath the point of the hook, so as to prevent the ring from falling out until it is withdrawn; or the claw may be double and pivoted, so as to work up and down on each side of the hook, and it may be so weighted at the back as to be made to act automatically.

Instead of a locking-claw, a safety-pin or key may be thrust through a hole in the bottom part of the hook, thereby closing it after the ring is inserted. This is the device we prefer; but the same end may be accomplished by means of a piece of rope of suitable form.

It is obvious that the hook and ring above described may be used for the lowering and detachment of packages or objects of any kind.

As intimated, various forms of link or shackle may be used in connection with hook A, the said hook being slightly modified to conform to the shape of the link or shackle.

Fig. 7 shows the old form of hook-link C with but one downwardly-curved hook *c* for the attachment of the fore-and-aft line *d*. Fig. 8 shows the improved hook-link with two such hooks *c*, one at each side; and the object of having hooks on either side is to avoid the necessity of turning the boat around to hook on the fore-and-aft line.

The operation of our invention is as follows: The hooks are attached to the ends of the boat in an inverted position by a rigid or slightly-jointed connection, and their ends pass partly within the eyes of the rings, links, or shackles. These latter are joined to the hook-links, they in turn fastened in any suitable manner to the davits, and the latter connected, through the medium of the inside hooks of the hook-links, by the safety-line. The boat, being thus hung

upon said davits, may be raised to the ship's side and there secured in the usual manner; or from thence it may be lowered to the water-level and the two hooks simultaneously liberated by a jerk upon the safety-line.

Having described the nature of our invention, what we claim is—

In a boat lowering and detaching apparatus, the combination of a hook formed with horn-like projections or stops, as described, and fixed in an inverted position to a ship's boat, with a link attached to the boat-lowering tackle and engaging said hook and bearing against the projections or stops, substantially as and for the purpose specified.

The above specification of our invention signed by us this 23d day of May, 1881.

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