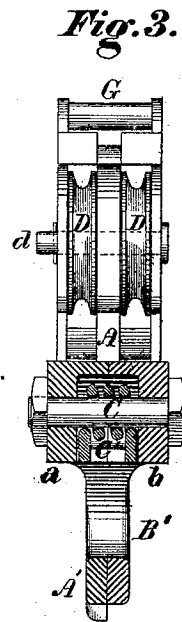
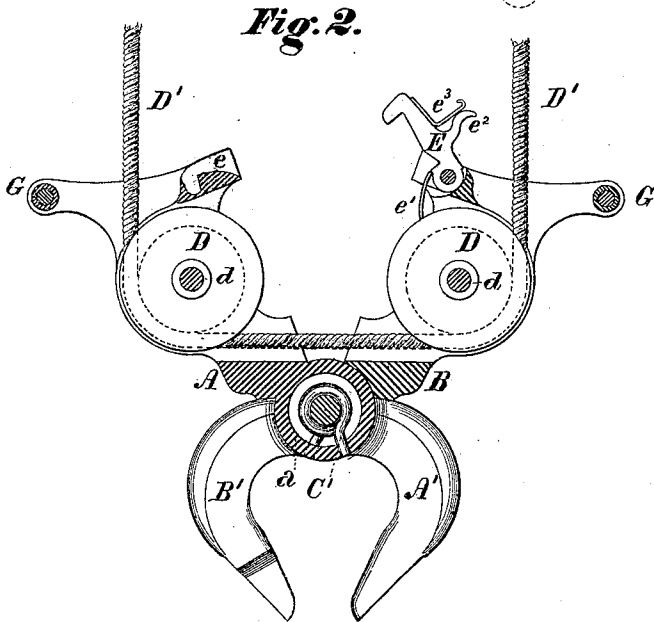
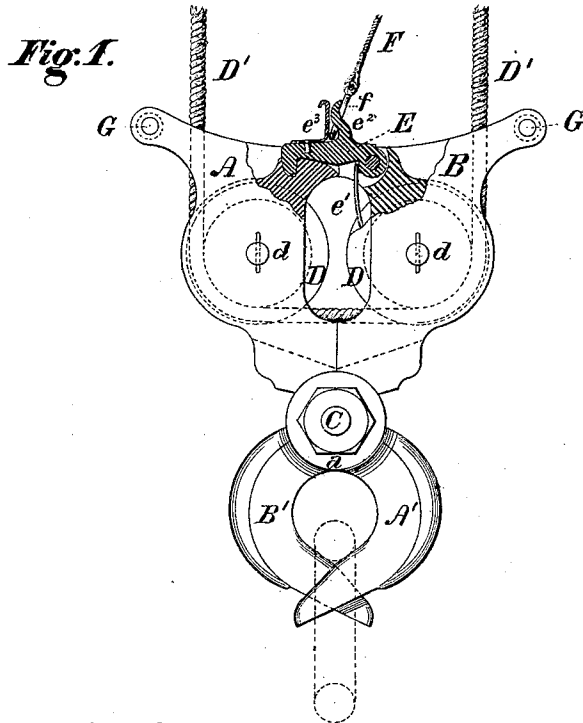


H. ASHFORD,
Boat-Detaching Apparatus.

No. 142,834.

Patented September 16, 1873.



Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY ASHFORD, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BOAT-DETACHING APPARATUS.

Specification forming part of Letters Patent No. **142,834**, dated September 16, 1873; application filed July 15, 1873.

To all whom it may concern :

Be it known that I, HENRY ASHFORD, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Devices for Lowering and Detaching Boats, of which the following is a specification:

The object of my invention is to provide simple and efficient means for automatically releasing a boat from the tackles by which it is suspended from the davits as soon as it touches the water, and thereby to prevent the accidents which so frequently occur in attempting to lower boats from a ship in rough weather; to which end my improvements consist in combining two blocks, each carrying a sheave or sheaves and a hook with a pin or bolt by which they are pivoted together, and a spring to throw the hooks apart when the tension resulting from the weight of the boat thereon is released; also, in a locking device to prevent the accidental disengagement of the hooks, all as hereinafter more fully set forth.

It is a fact familiar to navigators, as well as to other persons who travel by sea, that great difficulty is experienced in lowering a boat in a heavy sea, and numerous accidents of a more or less serious character occur in attempting to perform this operation. Boats are suspended from the davits at each end, and in order to lower them successfully it is necessary that both ends should be let go as nearly as possible at the instant that the boat touches the water. As the distance from the davits to the surface of the water constantly varies, it is almost a matter of impossibility to do this, and, even with the exercise of the utmost care and skill on the part of the crew, boats are often swamped and stove to pieces against the sides of the ship.

My improvement provides a device which is automatic in its operation, and releases the boat from the tackles by which it is suspended as soon as its weight ceases to bear thereon, by reason of its touching the water, and this irrespective of the distance it may have descended, and without requiring any attention or manipulation on the part of the crew.

To guard against any accidental detachment of the boat when suspended in its proper position upon the davits—as, for instance, by

contact with a large wave during a heavy sea, which would momentarily release the weight of the boat—I provide a spring-latch, which firmly holds the hooks together as long as the boat is not required for use. When the boat is lowered the latch is opened by means of a lanyard secured to one of the davits or to some other point upon the ship's deck, and the block is then ready to release the boat as soon as it strikes the water, as before stated. This feature is of great importance in the operation of hoisting the boat, as by putting down the latch the boat cannot become detached in the operation, an accident which often occurs with the tackle ordinarily used. I further provide guides for the tackles to prevent their entanglement, as well as to prevent the turning or twisting of the block.

In the accompanying drawings, Figure 1 is a view, partly in elevation and partly in section, of a tackle-block embodying my improvements, the parts being shown in the positions they occupy when the boat is suspended from the davits; Fig. 2, a vertical section of the same, the hooks being shown as disengaged to release the boat therefrom; and Fig. 3, a transverse section of the same.

My improved tackle-block is composed of two sections, A B, which are pivoted together by a pin, C, passing through cylindrical hubs or bosses *a b*, formed upon the sections A and B, respectively. Hooks A' B' are formed upon the sections A and B, below the bosses, being made to lap over each other at their lower ends, so that when closed they can retain a ring or link, as shown in Fig. 1. Sheaves D D are mounted on pins *d d* in the sections A and B, above the connecting-pin C, around which sheaves the tackles D', by which the device is suspended from the davits, pass. The hubs *a b* are each recessed, so as to form a chamber around the pin C, in which chamber a strong coiled spring, C', is placed, the ends of which bear against the sides of slots formed in the hubs *a b*. The effect of the pressure upon the sections A and B, developed by the tension of the spring, is to throw the hooks into the position shown in Fig. 2, when the ring or link which is connected to them will be of course released. From the relation of the hook to the pin and spring it is evident

that this tendency will be overcome by any weight bearing upon the hooks which is greater than the tension of the spring, and that the spring will act to separate the hooks as soon as the weight ceases to bear on them. The release of the boat is thus effected automatically at the precise moment that it is required—that is to say, as soon as it floats, and the boat can be hooked on with ease when ready to be hoisted up.

To clamp the sections together, and guard against accidental displacement, I provide a latch, E, pivoted to the section B, and taking into a recess, e, in the other section A. A spring, e¹, bears against one of two recesses in the lower side of the latch, so that the latch will remain either raised or lowered, as the case may be, until moved by hand. When the boat is hung upon the davits, a ring, f, attached to the end of a lanyard, F, is passed around an arm, e², on the latch E, being retained in position by a spring, e³.

The lanyard is made fast to one of the davits, or to some other convenient point on the ship's deck, and is made of such length that, as soon as the boat has been lowered a determined distance it will raise the latch, and the spring e³ will then allow the ring to free itself from the arm e², when the block will be in condition

to release the boat when it strikes the water. To prevent the turning of the block and entanglement of the tackles I provide a guide, G, on each section of the block, extending from one to the other of its outer plates. The tackles pass inside of the guides, which tend to prevent their displacement from the sheaves, and correspondingly prevent their fouling or entanglement.

I am aware that self-releasing tackle-hooks, operated by a weight or spring, have been heretofore known, and do not, therefore, broadly claim such devices.

I claim as my invention—

1. In a tackle-block, the combination of two sections pivoted together, and each carrying a sheave or sheaves and a hook, with a connecting-pin uniting the sections, and a spring, the ends of which bear against the sections at or near the connecting-pin, substantially as set forth.

2. The combination of the pivoted sections A B, the connecting-pin C, the spring C', and the spring-latch E, substantially as set forth.

HENRY ASHFORD.

Witnesses:

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