W. W. Andrews.

Boat Detaching.

No. 37,799. Patented Mar. 3, 1863.

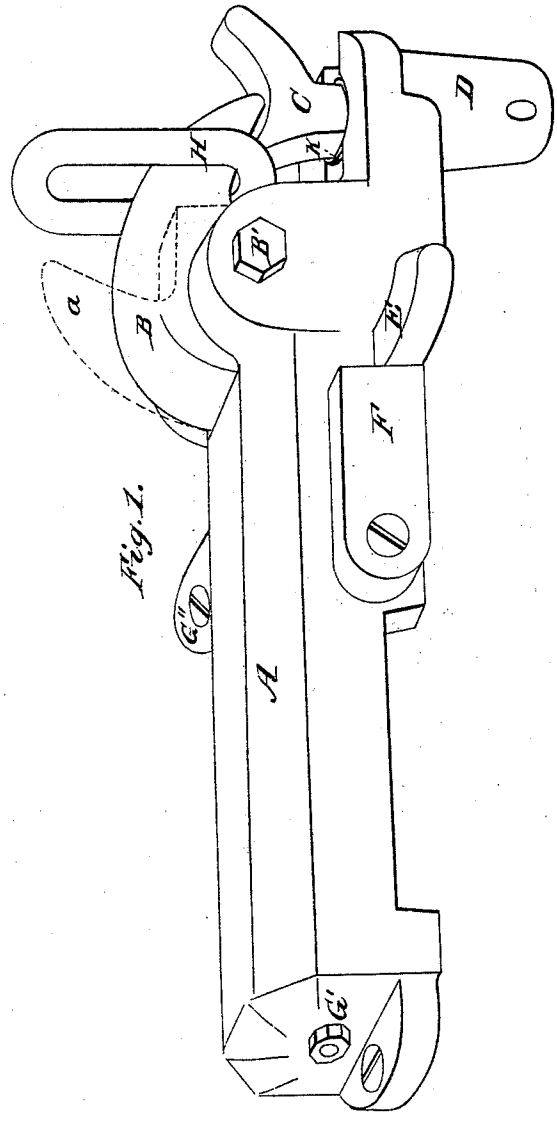

Fig. 1.

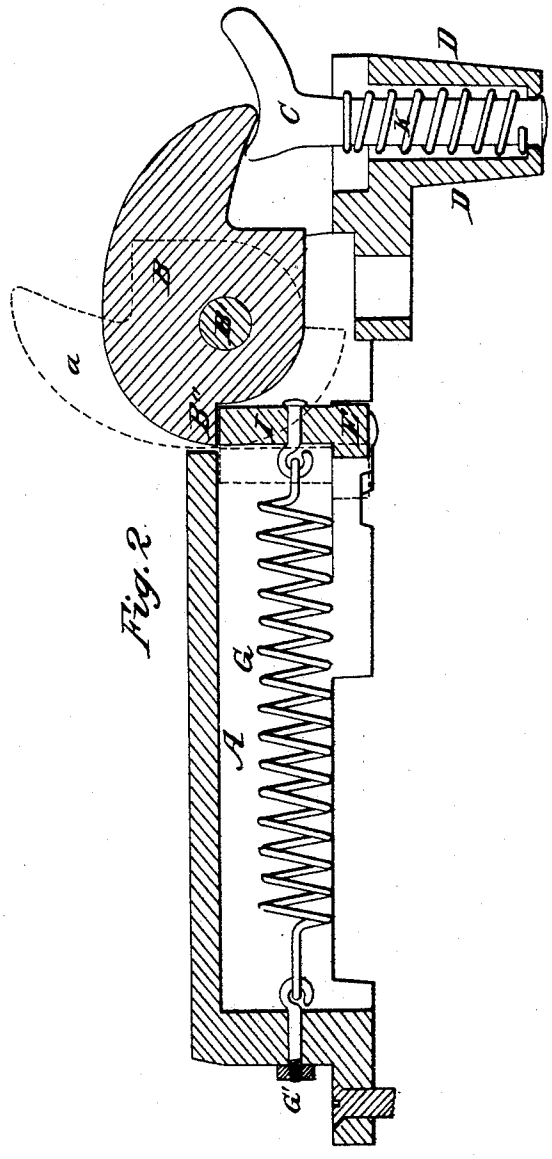

Fig. 2.

Witnesses.
J. Braun.
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UNITED STATES PATENT OFFICE.

WILLIAM WATSON ANDREWS, OF WARRENSVILLE, OHIO.

IMPROVED BOAT-DETACHING HOOK.

Specification forming part of Letters Patent No. **37,799**, dated March 3, 1863.

To all whom it may concern:

Be it known that, I, WILLIAM WATSON ANDREWS, of Warrensville, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Davit Hook and Eye Bolts; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 is a longitudinal section showing the interior construction.

The nature of my invention relates to such a construction of a davit hook and eye bolt that when the boat is suspended upon the davits the weight of the boat shall keep the hook closed, and thus hold the boat secure, but so constructed and arranged that the moment the boat floats upon the water the hook is cast loose by a spring.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

I hoist and lower boats in the usual way; but in order to obviate the difficulties and danger attendant on detaching boats by hand, I have constructed the davit hook and eye bolt hereinafter described. This consists of the following-described parts:

A A, Figs. 1 and 2, represent an iron case or frame, about thirteen inches in length, two and a half inches in breadth, and three and a quarter inches in its greatest heighth. The under side is flat, and the whole case or frame is bolted to the bottom of the boat, one at the bow and another at the stern. The body of the case is hollow, as shown in Fig. 2, in which is placed the spiral spring G, hereinafter to be described.

B, Figs. 1 and 2, represents a hook, which freely turns upon the pin B.′

C represents a dog, which is pressed upward against the point of the hook B, to prevent the rope or ring from slipping off from the hook when the boat is suspended from the davits, The dog C has a coiled spring, K, around its shank, by means of which the dog is pressed upward, as above described. Both the shank and spring are inclosed in the cylindrical cavity D. When the hook B is set, as hereinafter described, the dog C can be pressed downward a sufficient distance to admit the introduction of the link H, by which the boat is suspended.

G represents a coiled spring, one end of which is secured to tail-end of the frame A, as seen at G′. The other end is secured to a stud, I, which projects upward from a lever, E, which lever E lies upon the under side of the case A, and transversely thereto. This lever is pivoted to a projection, G″, on the side of the frame, as shown in Fig. 1. The hook B has a shoulder, B″, upon its heel, which rests upon the stud I when the lever E is shoved forward, as seen in Figs. 1 and 2. This lever can be held in the position shown by means of a catch, F, so that when this catch is set, as seen in Fig. 1, the point of the hook cannot be thrown back; but if the catch F is turned back, then the contraction of the spring G draws the stud I from under the shoulder B″, and a pressure upward upon the point of the hook will turn the hook back to the position indicated by the dotted lines *a a*, and the link H is released.

The operation of this davit hook and eye bolt is as follows: As hereinbefore stated, one is secured to the bottom of the boat at its stern and one at its bow. The stud I is set as seen in Fig. 2, and the catch put down, as seen in Fig. 1. The link H from the suspending-ropes is now passed over the point of the hook B, and the boat hoisted, so that its whole weight is supported by the hooks B. In this condition the catch can be turned back from the lever E; but the pressure of the shoulder B″ upon the stud I prevents the spring G from drawing back the lever E with the stud I, and the boat will remain suspended as long as the pressure is continued upon the stud I, as described, and can thus be swung over the side of the vessel and lowered away, and the boat's crew in the boat only renders it more secure by increasing the pressure upon the stud I; but the instant the boat touches the water, thus releasing the pressure from the heel of the hook, the spring G draws the stud I from beneath the shoulder B″, and the points of the hooks fly upward, as at *a*, and the boat is instantly released.

In the construction of the mechanism herein described I do not intend to confine myself

to the precise arrangement of parts as shown in the drawings. The lever E may be placed upon the top of the case, instead of the side, and the spring G may be elliptical, volute, or of any other form whereby the same ends are obtained. The dog C, the office of which is to prevent the premature unhooking of the bolt, may be held in contact with the point of the hook by means of a spring, or by means of a weighted lever, the effect in both cases being identical.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The combination in a mechanical apparatus, of the hook B, shoulder B″, stud I, lever E, spring G, catch F, and dog C, the several parts being arranged substantially as and for the purpose herein specified.

WILLIAM W. ANDREWS.

Witnesses:

SEWEL G. THAYER,

SAMUEL G. HURLBUT.