

R. GREENWELL.

BOAT DETACHING APPARATUS.

No. 183,663.

Patented Oct. 24, 1876.

Fig. 1.

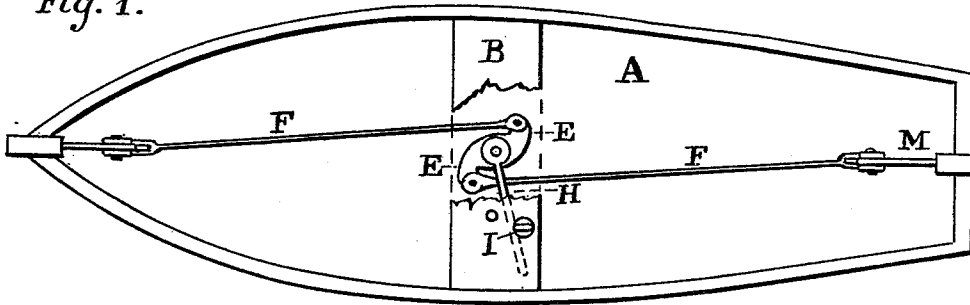


Fig. 2.

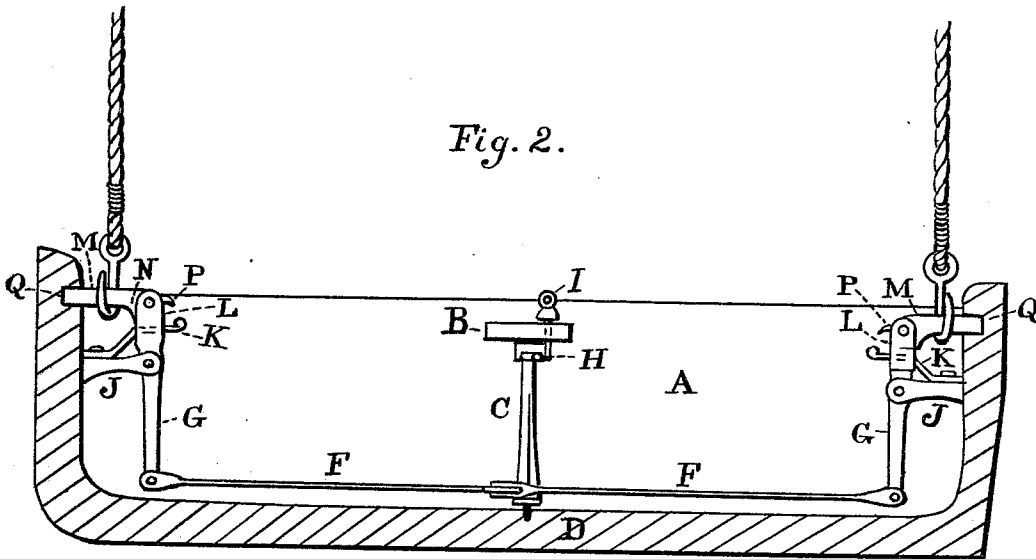
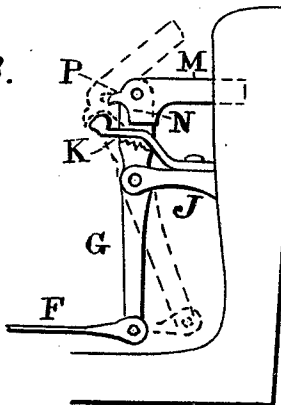


Fig. 3.



Witnesses :
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UNITED STATES PATENT OFFICE.

ROBERT GREENWELL, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO HIMSELF AND CONRAD WEGEFARTH, OF MEADVILLE, PENNSYLVANIA,
AND CHARLES F. WISE, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN BOAT-DETACHING APPARATUS.

Specification forming part of Letters Patent No. **183,663**, dated October 24, 1876; application filed
October 2, 1876.

To all whom it may concern:

Be it known that I, ROBERT GREENWELL, of the city of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Boat-Detaching Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a plan view of a boat having my improvements. Fig. 2 is a side elevation, a side of the boat being removed to show the mechanism. Fig. 3 is an enlarged view of the detaching apparatus at one end of the boat.

This invention relates to an improvement in boat-detaching apparatus; and consists of a bar pivoted in the upper end of a bifurcated lever, having its fulcrum in a horizontal arm secured to the end of the boat, and provided with a curved guide to raise the bar as it is withdrawn from a recess in the end of the boat, for the purpose of permitting the hooks that suspend the boat from the davits to easily loose their hold upon the pivoted bars, all of which will be hereinafter more fully described and claimed.

In the accompanying drawing, similar letters of reference indicate like parts in the invention.

The boat A has the usual seats, one, B, of which forms the upper bearing for the vertical rock-shaft C, its lower bearing being in the keel D or bottom of the boat.

Curved arms E are fixed to the rock-shaft C, near its lower bearing, and connecting-rods F lead from said arms to the lower ends of the bifurcated levers G. A hand-lever, H, is fixed to the rock-shaft C, near its upper bearing, and a pin, I, in the seat B holds it in place until withdrawn.

The bifurcated levers G have their fulcrums in the ends of the horizontal arms J, secured to the ends of the boat. Curved guides K are fixed to the arms J, and enter bifurca-

tions L of the levers G. Bars M are pivoted in the bifurcations L of the levers G, and are provided with cams N on their lower edges, directly beneath the pivots, which engage with the guides K when the hand-lever H is operated, and throw the bars M upward, to permit the hooks which suspend the boat from the davits to slip therefrom.

Stops P are made on the ends of the bars M, to prevent said bars from being carried too far over. They engage with the ends of the curved guides K, and are held at an angle that causes them to drop back to place when the hand-lever H is in its first position—that is to say, when the bars M are in the recesses Q in the ends of the boat.

When the boat is suspended by the ropes and hooks from the davits, the crew can take their places, and be lowered until within a few inches of the water, or, in a rough sea, until the water strikes the bottom of the boat, when the man in charge of the hand-lever H can turn it so as to instantly release the hooks at both ends of the boat, and permit it to float off with the water without the slightest danger of swamping the boat.

The connecting-rods F and curved arms E may be placed beneath the flooring of the boat, to keep them from coming in contact with obstacles that might prevent their successful operation.

Having thus described my invention, I claim—

The bar M, pivoted in the bifurcation L of the lever G, having its fulcrum in the horizontal arm J, secured in the end of the boat, and provided with the curved guide K, substantially as and for the purposes described.

In testimony that I claim the foregoing, as described, I have hereunto set my hand and seal this 2d day of October, 1876.

ROBERT GREENWELL. [L. S.]

Witnesses:

H. A. DANIELS,
THEODORE MUNGEN.