W. A. BRICE.

BOAT-DETACHING APPARATUS.

No. 184,327. Patented Nov. 14, 1876.

Fig. 1.

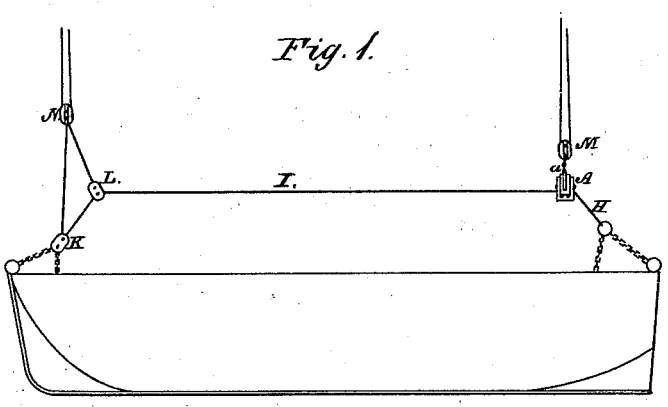


Fig. 2.

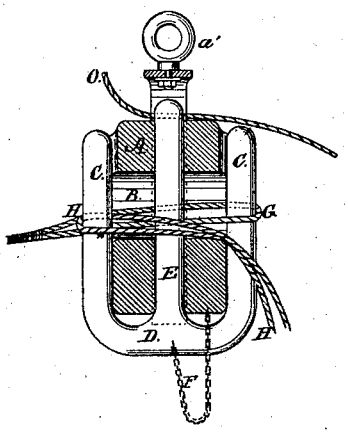
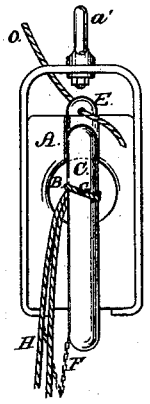


Fig. 3.



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WILLIAM A. BRICE, OF LONDON, ENGLAND.

IMPROVEMENT IN BOAT-DETACHING APPARATUS.

Specification forming part of Letters Patent No. **184,327**, dated November 14, 1876; application filed November 1, 1876.

To all whom it may concern:

Be it known that I, WILLIAM A. BRICE, of Middle Temple Lane, London, England, have invented a new and Improved 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, forming part of this specification.

This invention relates to a cheap and simple device for detaching ships' boats in a perfectly safe, reliable, and automatic manner as soon as the boat reaches the water, whereby accidents are entirely avoided.

The invention consists of an improved boat-detaching apparatus, that remains intact and locked as long as there is any strain upon the suspending-tackle, but is instantly released when the strain is taken off by the boat becoming water-borne.

This self-detaching device is also applicable for other purposes in which it is required to effect disconnections automatically—as, for example, for depositing mail-bags or parcels from trains at full speed, or for taking soundings at sea.

This invention consists of a block with horizontal aperture, across which two bolts pass at opposite sides. These bolts may be separate, or, preferably, united by a cross-bar at the lower end, and provided with a guide-rod.

I will describe the device as applied for detaching ships' boats.

The block is suspended at the upper part from the davit-tackle, so that the bolts are vertical, and the boat is suspended from the device by a loop of rope passed through the aperture in the block from one side, and over or round the hold at the opposite side, and another loop similarly passed through the aperture and round the other bolt from the other side. The strain on the two ropes thus tends to draw the bolts against the sides of the block and hold them in position, and they are thus held intact so long as the strain of either rope is upon them; but immediately they are relieved of the strain by the boat being completely water-borne. The bolts, being in a vertical position, fall by their own gravity and slip out of the loops, which are thus set free.

As applied to detaching ships' boats, the invention also comprises an arrangement of ropes in combination with the above-described device, whereby the boat is not released at either end if water-borne at one end only; but when completely water-borne the boat is automatically detached at both ends.

I have illustrated the invention in the annexed drawing, in which Figure 1 shows a boat suspended from the ship's davits by ropes, and connected with my improved self-detaching device. Fig. 2 shows a central vertical section of the said device separately and on a larger scale. Fig. 3 shows a side elevation of the same.

The same letters of reference indicate the same parts in all the figures.

A is the block, suspended by an iron strap, *a*, and ring *a'*, or otherwise, from the tackle of one of the davits. B is an aperture passing horizontally through block A from side to side, and C C are two vertical bolts passing across the aperture B at either side. These bolts are united at bottom by a cross-bar, D, provided with a guide-rod, E, passing up through the center of the block A.

F is a chain or other connection, attaching the cross-bar D to the block A, to prevent the bolts falling too far or being lost. G H are two loops of rope, passed through the aperture B from opposite sides, and each passed over, or having passed through it, the bolt C at the opposite side of the aperture to that at which it enters. The strain on these loops of rope is sufficient to hold the bolts in position, and immediately the strain is removed the bolts fall by their own weight out of the loops G H, as shown in Fig. 2, and the latter are set free.

O is a safety-line, passed through a hole in the upper end of rod E, to prevent the boat being accidentally detached before it is lowered sufficiently. This line may be attached to the davit or some other part above, and, being shorter than the distance the boat has to be lowered, it is drawn out automatically as the boat is lowered; or, instead of being attached, as described, it may be drawn out by some one in the boat.

In Fig. 1 but one of these self-detaching devices is used. It is attached to one of the lower blocks M of the boat-lowering tackle,

and the loop of rope H is attached to the slings at the stern of the boat, and the other loop, G, is at the end of a rope, I, which is attached to the other block, N, depending from the davit, and is passed through the ring K of the slings at the bow of the boat, and then through another ring, L, attached to the block N, and thence to the detaching devices, as shown.

By means of this arrangement the boat is not released at either end until it is wholly supported by the wave; and either end might be lifted independently without danger, as the bolt will not fall so long as the strain of either rope is upon it. Immediately the strain is taken off both ropes G H the boat is released at both ends, the rope I slipping freely through the rings K L. It will thus be seen that the boat cannot be relased at one end without being released at the other also, and thus all liability of dragging is avoided.

This arrangement of tackle allows the horizontal rope, as well as the detaching device, to be suspended at a convenient height above the heads of the persons in the boat.

What I claim as new is—

1. In an automatic detaching device or apparatus for disconnecting ships' boats and other purposes, the combination, with two self-releasing vertical bolts and a central guide-rod, of a block having a horizontal aperture, through which loops are passed from opposite sides and round the bolts, the latter retaining said loops so long as they are subject to strain, but instantly falling and releasing the loops when the strain is taken off, substantially as herein shown and described.

2. The combination, with one automatic detaching device, of ropes for connecting the boat to the davit-tackle, and insuring the simultaneous release of both ends of the boat, substantially as shown and described.

The above specification of my invention signed by me this 11th day of September, 1876.

WILLIAM ALEXANDER BRICE.

Witnesses:
J. J. WILSON,
H. BENNETT.