

(Model.)

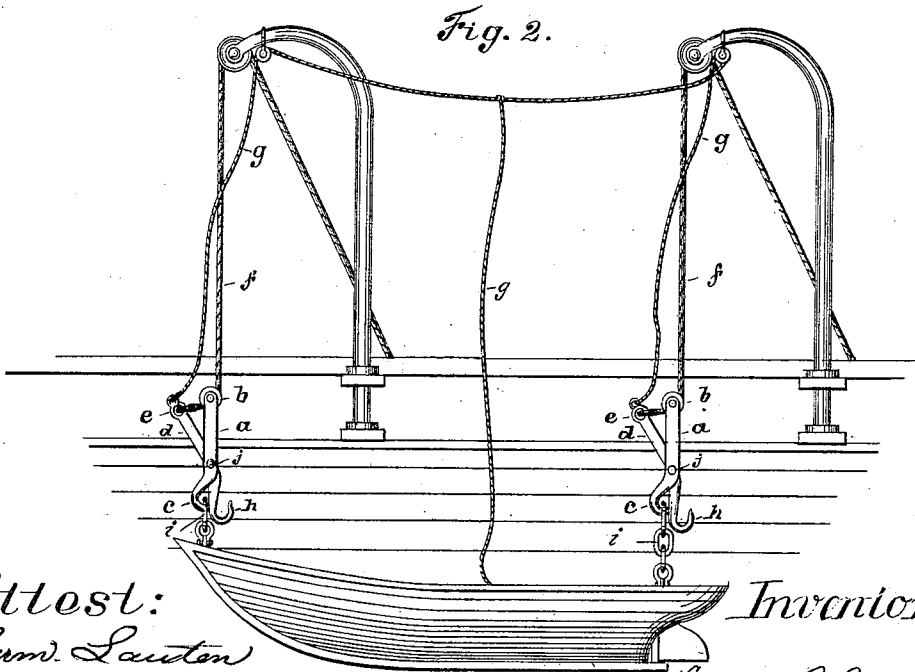
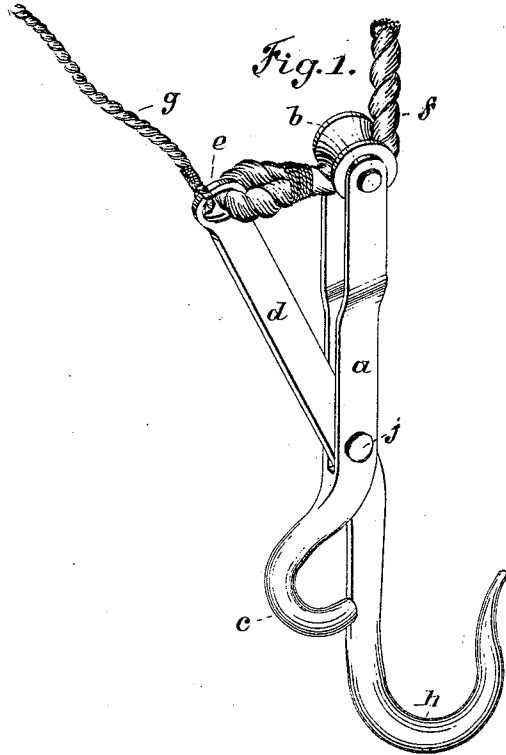
2 Sheets—Sheet 1.

H. R. JUSTICE.

Safety Jaw Block and Boat Detacher.

No. 242,541.

Patented June 7, 1881.



Attest:
 Herm. Lauten
 Geo. M. Inghel

Inventor:
 Howard A. Justice,
 by his Attorney,
 Wm. H. Finckel

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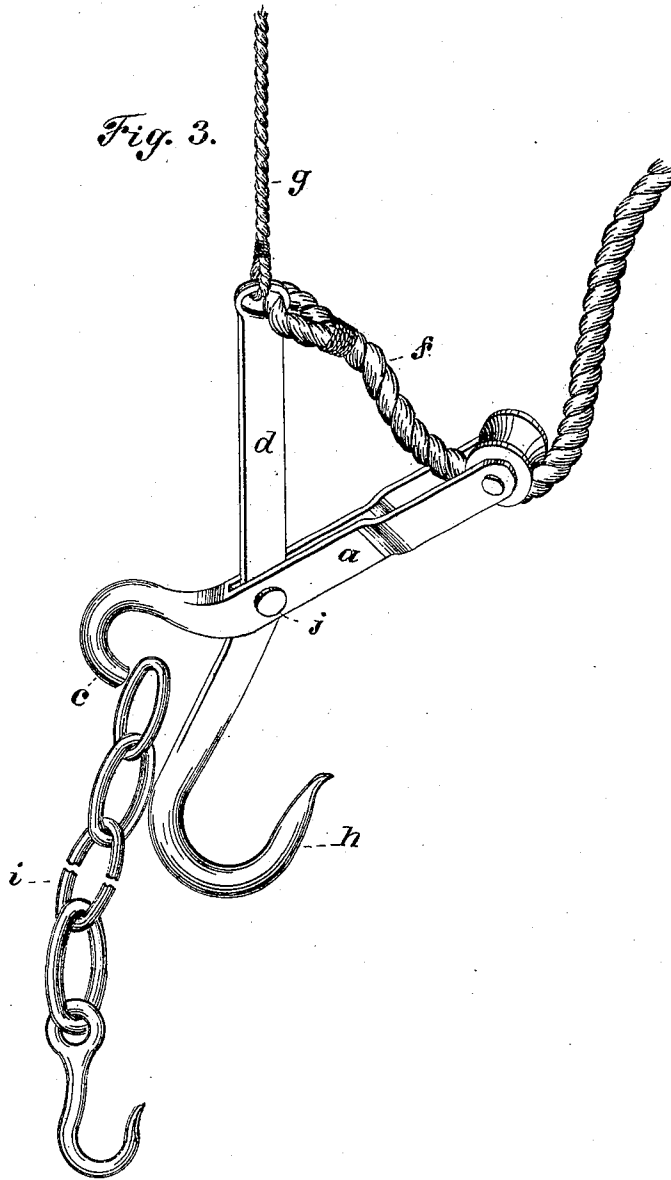
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UNITED STATES PATENT OFFICE.

HOWARD R. JUSTICE, OF PHILADELPHIA, PENNSYLVANIA.

SAFETY JAW-BLOCK AND BOAT-DETACHER.

SPECIFICATION forming part of Letters Patent No. 242,541, dated June 7, 1881.

Application filed February 21, 1881. (Model.)

To all whom it may concern:

Be it known that I, HOWARD R. JUSTICE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Safety Jaw-Blocks and Boat-Detachers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to a device for insuring the safe, expeditious, and certain unloading of cargoes, and for "casting off" boats from vessels, &c.

The invention consists in a jaw-block and boat-detacher composed of two pivoted jaws, one containing a sheave or other suitable device at one end, and a hook at the other end, and the other having an eye, in which a supporting rope or chain is fastened, said rope or chain passing thence about the sheave in the other jaw to the point of securing or suspension, said jaw also, if desired, having a hook to hold the slings when not in use, or for returning them to point of delivery, and also having attached in its eye a trip-cord, by which the jaws are parted to release the slings held by the hook on the first-named jaw while retained in contact with the second jaw, the jaws being always held in this locked position until positively released by force applied through the trip-cord.

In the accompanying drawings illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of my safety jaw-block and boat-detacher. Fig. 2 is a view in side elevation, illustrating the application of my invention to ships' davits for lowering or casting off a boat; and Fig. 3 is a perspective view of my device in position when operated by the trip-cord to release the slings and discharge its load.

The letter *a* designates a jaw, having in one end a sheave, *b*, or other suitable device, and at the other a hook, *c*. Pivoted within or to this jaw is another jaw, *d*, having an eye, *e*, in which a rope or chain, *f*, is fastened, said rope

or chain passing thence about the sheave *b* to the point of suspension, this rope or chain extending in a right line from the jaw *a*, so as to suspend the jaw in a perpendicular position.

g is a trip-cord attached in the eye of jaw *d*, and serving to separate the two jaws, as indicated in Fig. 3.

h is a hook on the lower end of jaw *d*, which may be used to support the slings when not in use, or to return them to the point of delivery.

To illustrate one application of my invention I have shown in Fig. 2 the davits of a vessel, over pulleys in which are passed the ropes or chains *f f*, bearing my safety jaw-blocks, in which the slings *i* are securely held. The trip-cords *g g* of the two are passed up over separate sheaves on the davits and spliced, and the spliced ends run inboard or down into the boat to be lowered, so that but one man is required to operate the bow and stern slings, whereby the boat is certainly cast off, being released at both ends simultaneously. It will be borne in mind that even when the boat is water-borne the supporting-slings will not be released, save by the manual operation of the trip-cords upon the jaws, and this pulling upon the trip-cords serves to draw the jaws apart, so that, the hook *c* being no longer in close contact with the jaw *d*, the slings *i* are free to slip therefrom, the jaws being tilted somewhat to insure the exit of such slings and the consequent releasing of the load. The separation of the jaws by the trip-cord to release a load or burden is effected when such load or burden is landed or water-borne, or otherwise supported from beneath. The load in the slings puts such a tension upon the ropes or chains *f* that the jaws are brought more firmly in contact, and hence more securely retain the slings in proportion to the weight of such load. Accidental releasing of the slings, or the releasing of one before the other, is impossible with my blocks when the trip-cords are spliced and to be operated by one man.

My jaw-block may be rigged to a crane ashore for unloading or loading vessels, &c., or may be arranged otherwise upon a boom or other part of a vessel for taking on or discharging its cargo, and may be worked singly or otherwise, as desired.

To bring the eye of the jaw *d* in line with the sheave in jaw *a* the latter jaw may be slotted, as shown, and the jaw *d* pivoted at *j* within said

slot, the suspending rope or chain *f* then being in a right line with the jaws, and so obviating cramping and insuring easy working.

In operation a link or eye of a sling, *i*, is placed within the hook *e*, and tension being put upon the rope or chain *f*, the two jaws are drawn together until the hook comes into close contact with the jaw *d*, and so incloses the sling and securely retains it. When the load in the sling is landed the trip-cord is drawn in, whereby the hook *e* is parted from the jaw *d*, and the sling slips out and so discharges the load. The sling may then be hung on hook *h* and the device sent after another load.

In loading or unloading articles such as iron pigs, they may be piled on a sling, a link at one end of such sling being engaged by hook *e*, and the other terminal link or hook being slipped on hook *h*. The load is discharged by releasing the sling from the hook *e* and allowing it to hang from and be returned by hook *h*. During the transit of the load to its place of discharge the stevedore or other employé may be engaged in loading up a second sling, and when the block and first sling are returned the latter may be detached and the loaded second sling engaged with the hooks *e* and *h*, so that no loss of time may occur.

Instead of a sheave, *b*, in the arm *a*, I may use simply an eye or a roller; or the ends of the arm may be joined at that point to form a loop to receive the rope or chain *f*.

What I claim is—

1. The combination of the pivoted jaws *a d*, connected by a suspending cord or chain, *f*, a hook, *e*, on the jaw *a*, to engage a sling or other load-securing means, and a trip-cord, *g*, attached to the jaw *d*, to separate the jaws and disengage said hook and sling to release or discharge the load, substantially as described.

2. A jaw, *a*, suspended from one end and provided with a hook, *e*, at the other end, combined with a second jaw, *d*, and a rope or chain, *f*, fixed to the jaw *d*, and movably connected with the jaw *a*, to lock the hook against the jaw *d*, to adapt said hook to hold a load, substantially as described.

3. Two connected pivoted jaws, *a d*, provided with a suspending cord or chain, *f*, attached to one jaw, and passing thence through the other to the point of suspension, whereby the said jaws are normally held in the closed or locked position to sustain a load, combined with a tripping mechanism for unlocking said jaws to discharge the load, and with a hook, *h*, to return the sling, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HOWARD R. JUSTICE.

Witnesses:

J. HOWARD MITCHELL,
PATRICK McGETTIGAN.