

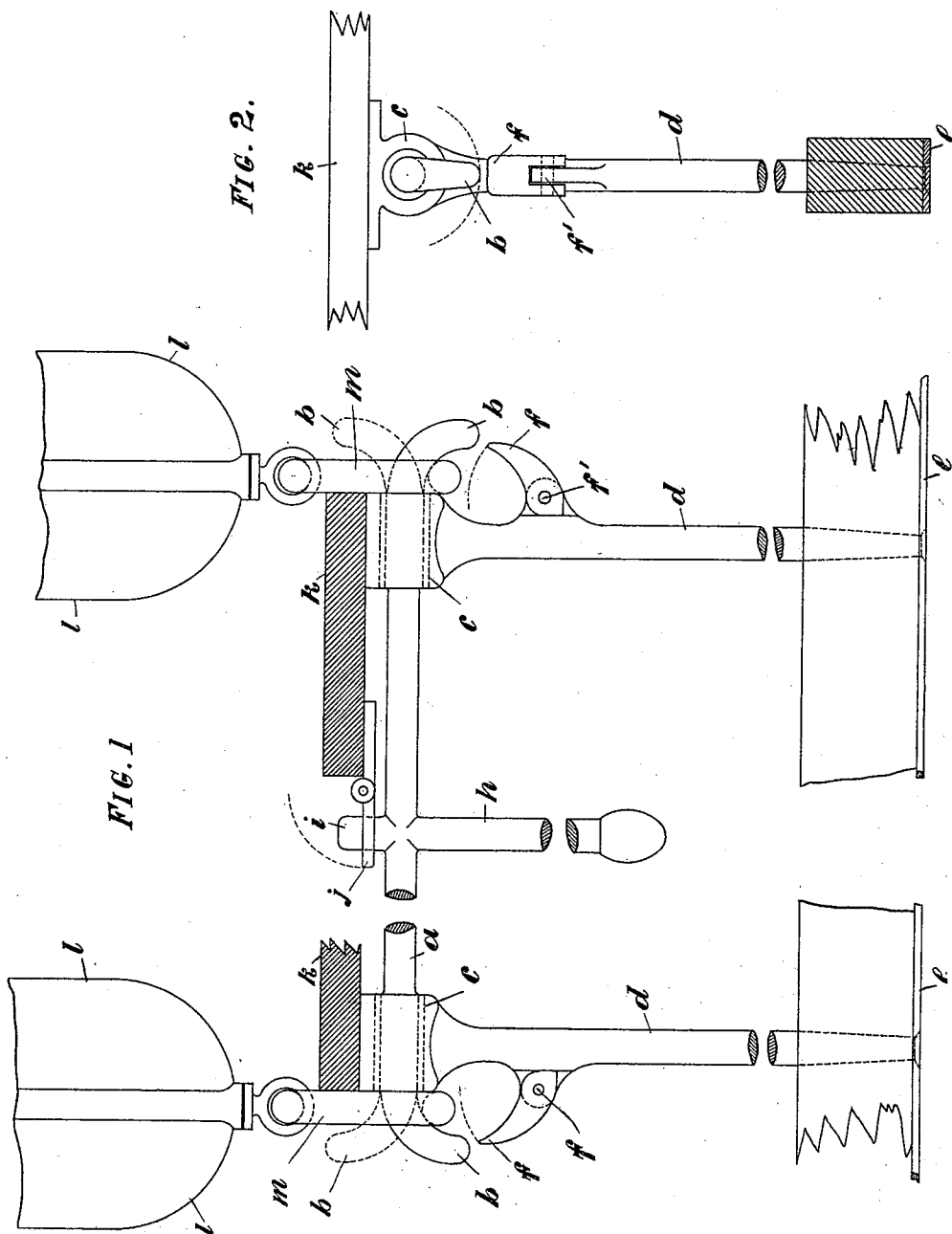
(No Model.)

2 Sheets—Sheet 1.

H. J. SIMPSON.
SHIP'S BOAT DISENGAGING GEAR.

No. 463,957.

Patented Nov. 24, 1891.



Witnesses.
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J. H. Daly

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FIG. 3.

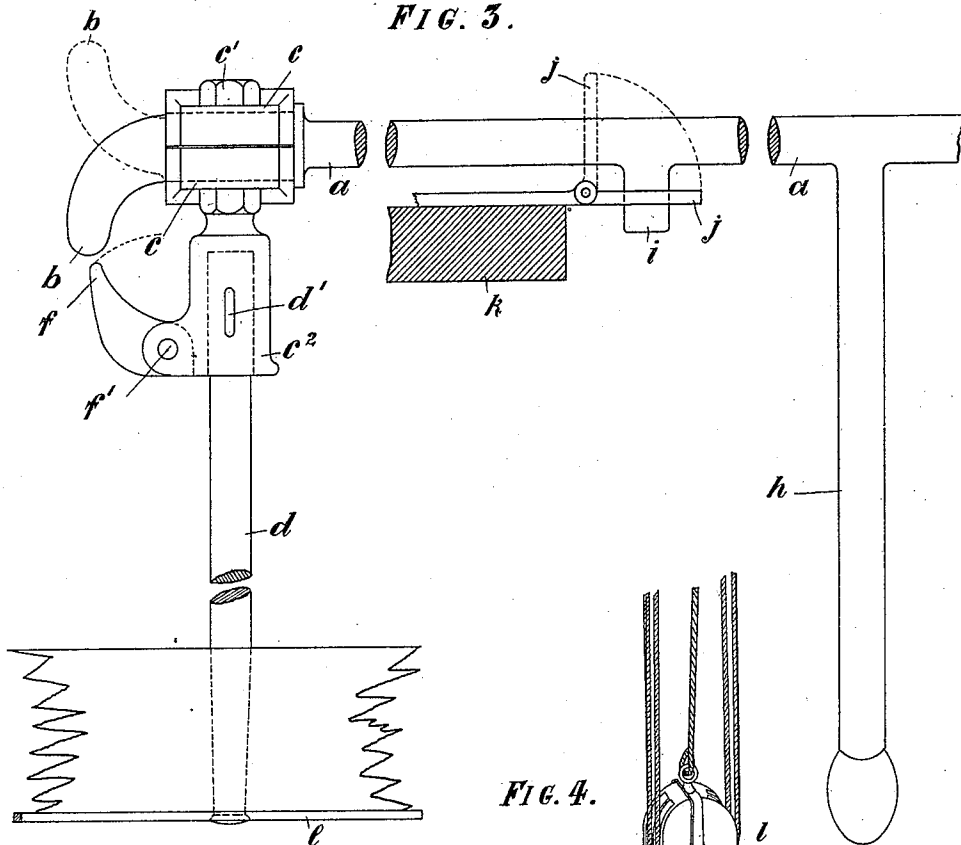
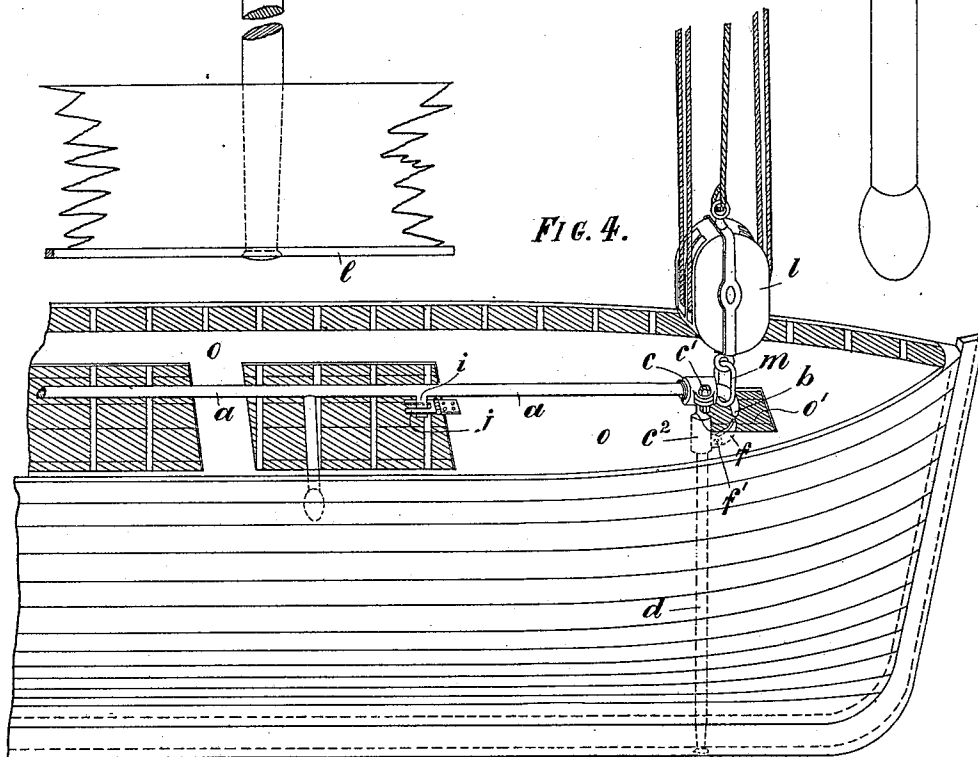


FIG. 4.



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UNITED STATES PATENT OFFICE.

HENRY JOHN SIMPSON, OF LIVERPOOL, ENGLAND, ASSIGNOR OF ONE-HALF
TO HAROLD HERON HOSACK, OF SAME PLACE.

SHIP'S BOAT-DISENGAGING GEAR.

SPECIFICATION forming part of Letters Patent No. 463,957, dated November 24, 1891.

Application filed July 7, 1891. Serial No. 398,691. (No model.)

To all whom it may concern:

Be it known that I, HENRY JOHN SIMPSON, a subject of the Queen of Great Britain and Ireland, residing at Liverpool, in the county of Lancaster, England, have invented certain new and useful Improvements in Ship's Boat-Disengaging Gear; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that kind of gear by which ships' boats are disengaged or disconnected from the tackle by which they are supported and lowered from the davits or by which they are raised. According to this invention the gear or means by which ships' boats are disengaged from their lowering or raising gear connected with the davits consists of two hooks, one at each end of the boat, and connected or coupled together by a rod or tube, said hooks being mounted in bearings and adapted to be turned therein. The backs of the hooks are inclined in such a manner that when the rod which connects said hooks together is turned they press the hooks or rings which they are in gear with away and so free themselves therefrom.

In the drawings which serve to illustrate this invention, Figure 1 is a view illustrating the invention in elevation, Fig. 2 being an end view of same. Fig. 3 is a detail illustrating the invention according to a modified construction, and Fig. 4 is a perspective view illustrating the invention as applied to a boat having a partial deck.

With reference to the drawings, *a* is a longitudinal bar having at each end a hook *b*.

c is a bearing in which the hooks and ends of the bar *a* are supported and work.

d is a rod or bar fixed at its lower end to the keel *e* of the boat and supporting the bearing *c*.

f is a stop-arm pawl projecting upward and hinged at *f'*, such pawl being adapted to move about its hinge inward toward the bearing *c*, but not farther outward than the position shown in the figures.

h is a handle formed on the bar *a* by which it is turned in its bearings.

i is a projection on the bar *a* by which said bar is held in position.

j is a latch adapted to engage with the projection *i*, said latch having movement in an upward direction, as shown in dotted lines in Fig. 3.

k represents the thwarts of the boat.

l represents portions of the lower blocks of the raising and lowering tackle by which the boats are lowered from or raised toward the davit-heads.

m are rings secured to the blocks *l*, as shown in Fig. 1, and which are engaged by the hooks *b* of the disengaging-gear and by which the boat is suspended.

With reference mainly to Fig. 1, the position of the hooks *b* and pawls *f* when the boat is suspended by the rings *m* from the davit-tackles will be seen—that is to say, the hooks *b*, in conjunction with the pawl *f*, keep under all circumstances the rings *m* from becoming disengaged of themselves. When, however, the bar *a*, in the act of releasing or disengaging, is rotated by moving the handle *h* upward (the locking-latch *j* having of course been first raised off the projection *i*) until the points of the hooks *b* are approaching or past the horizontal plane in which the axes of the bearings *c* lie, then the rings *m* will naturally tend to move off the hooks *b*, and the weight of the boat on the hooks will instantly turn them up and complete their disengaging movement, and they will release themselves from the tackle-rings *m*. This completes the operation of disengagement.

It will be seen that the construction of the details or parts can be carried out in various different ways—as, for instance, in Fig. 1 the bearing *c* is solid, having a bush of gun or other suitable metal in it, so as to prevent the bar *a* from corroding up in its bearings and rendering the operation defective. In Fig. 3 the bearing *c* is a divided one, the two parts being connected together by bolts *c'*. In the application shown in Fig. 4 the bearings are divided and of the form shown in Fig. 3, the invention being in this case applied to a boat having a partial deck *o*, with a hole *o'* thereon, through which the ring *m* of the tackle-blocks *l* is passed when shipping the tackle-

rings *m* onto the hooks *b*. The joint of the pawl *f* at *f'* is an ordinary pin knuckle-joint, it being of such a construction that it is free to move inward about such joint, but not farther outward than shown in the drawings. The bar *a* may be in one continuous length, or of parts coupled up in any suitable way, and may be disposed either under or over the said thwarts accordingly as the different application of the invention may render it desirable or necessary. The bearing in Fig. 3 is connected to the bar *d* by a cotter *d'*, a sleeve *c*², formed on the under side of the bearing *c*, being provided and shipping over the upper end of the bar. To this portion *c*² in this case the hinged pawl *f* is mounted.

The advantages attending the use of this invention are that when a boat is released both blocks of the tackle which suspend the boat must of necessity be released simultaneously, and when the rings or hooks *m*, as the case may be, of the tackle-blocks are in position—that is, engaged with the hooks *b*—it is impossible for such rings to become disengaged of themselves. Further, the gear is simple, cheaply made, safe, and very easily worked.

In lieu of the stop arms or pawls *f*, the hooks *b* may be so arranged and constructed in connection with a thwart or other stop that when they are turned down and the ring or hook *m* is engaged with such hooks or rings the rings cannot of themselves pass the ends of the hooks and become disengaged. In such cases, in the action of disengaging the rings from the hooks *b*, such rings will have to be placed in position under the hooks and then the hooks turned down.

It will be noticed that in the drawings given herein the under side of the hooks *b*, on which the inner surfaces of the rings *m* bear, lies below the axis of the bar *a*—that is, the center of the bearings of said bar. This construction, however, may be modified, if desired, and carried above said axis, in which case the operation of releasing the boat would require a certain amount of force to be exerted upon the lever *h* to accomplish it. It will be seen that in the action of releasing—i. e., when the bar *a* is rotated—the inclination of the back of the hooks *b* tends to press and causes the ring to move toward the point of the hook, and so, as it were, automatically press the rings out of gear with them. The inclination of the backs of the hooks is intentionally so formed as to effect this result.

What I claim in respect of the herein-described invention is—

1. The combination, with a ship's boat, of a bearing *c*, supported thereby, a horizontal bar *a*, pivotally sustained by the bearing and having hooks *b* at its ends, the axes of which are fore and aft in the horizontal plane, pivoted stops *f*, located below the hooks and having their points or free ends lying in close proximity to the points of the hooks when the latter are turned downward to their engaging position, and means for rotating the horizontal bar to simultaneously turn the hooks, substantially as described.

2. The combination, with a ship's boat, of bearings *c*, supported thereby, a horizontal bar *a*, pivotally supported by the bearings and having hooks *b* at its ends, the axes of which are fore and aft in the horizontal plane of the bar, a lever *h*, connected with the bar for rotating the same, and pivoted stops *f*, located below the hooks and having their points or free extremities lying in close proximity to the points of the hooks when the latter are turned down to their engaging position, substantially as described.

3. The combination, with a ship's boat, of bars or posts *d*, the bearings *c*, supported by the bars or posts, the horizontal bar *a*, pivotally sustained by the bearings and having hooks *b* at its ends, the axes of which are fore and aft in the horizontal plane, a lever *h*, connected with the horizontal bar for rotating the latter, and pivoted stops *f*, arranged on the bars or posts below the hooks, with their points or free ends lying in close proximity to the points of the hooks when the latter are turned down to their engaging position, substantially as described.

4. The combination, with a ship's boat, of bearings *c*, supported thereby, a horizontal bar *a*, pivotally sustained by the bearings and having hooks *b* at its ends for engaging the rings of a tackle, a lever *h*, connected with the horizontal bar for turning the latter to simultaneously operate the hooks, and a latch for engaging a part of the horizontal bar to hold it stationary, substantially as described.

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

HENRY JOHN SIMPSON.

Witnesses:

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Both of 15 Water Street, Liverpool.