

(No Model.)

3 Sheets—Sheet 1.

W. H. WILSON & W. J. PIRRIE.
BOAT DISENGAGING GEAR.

No. 503,637.

Patented Aug. 22, 1893.

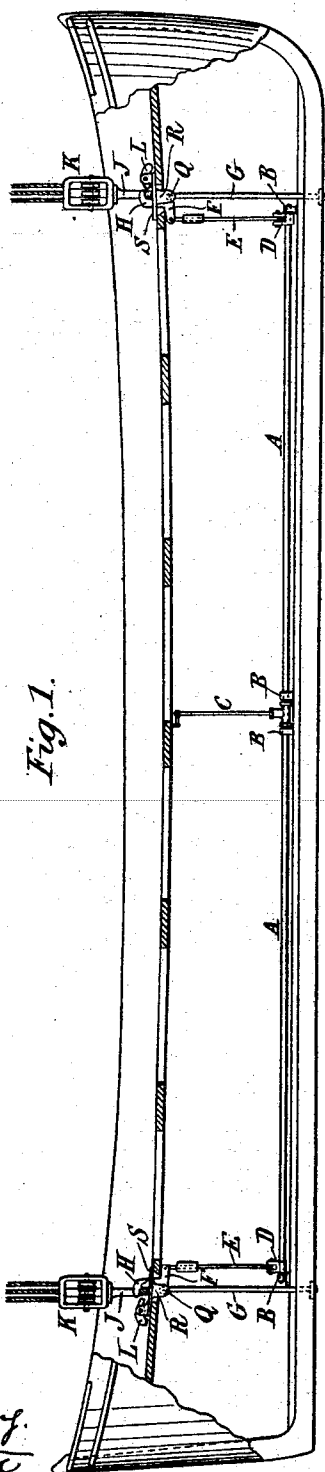


Fig. 1.

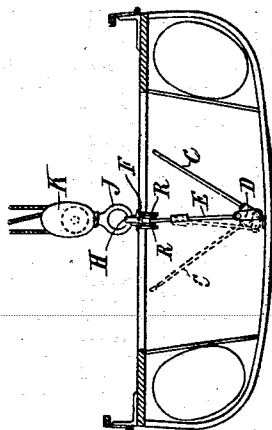


Fig. 2.

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Belmont, Davidson & Wright

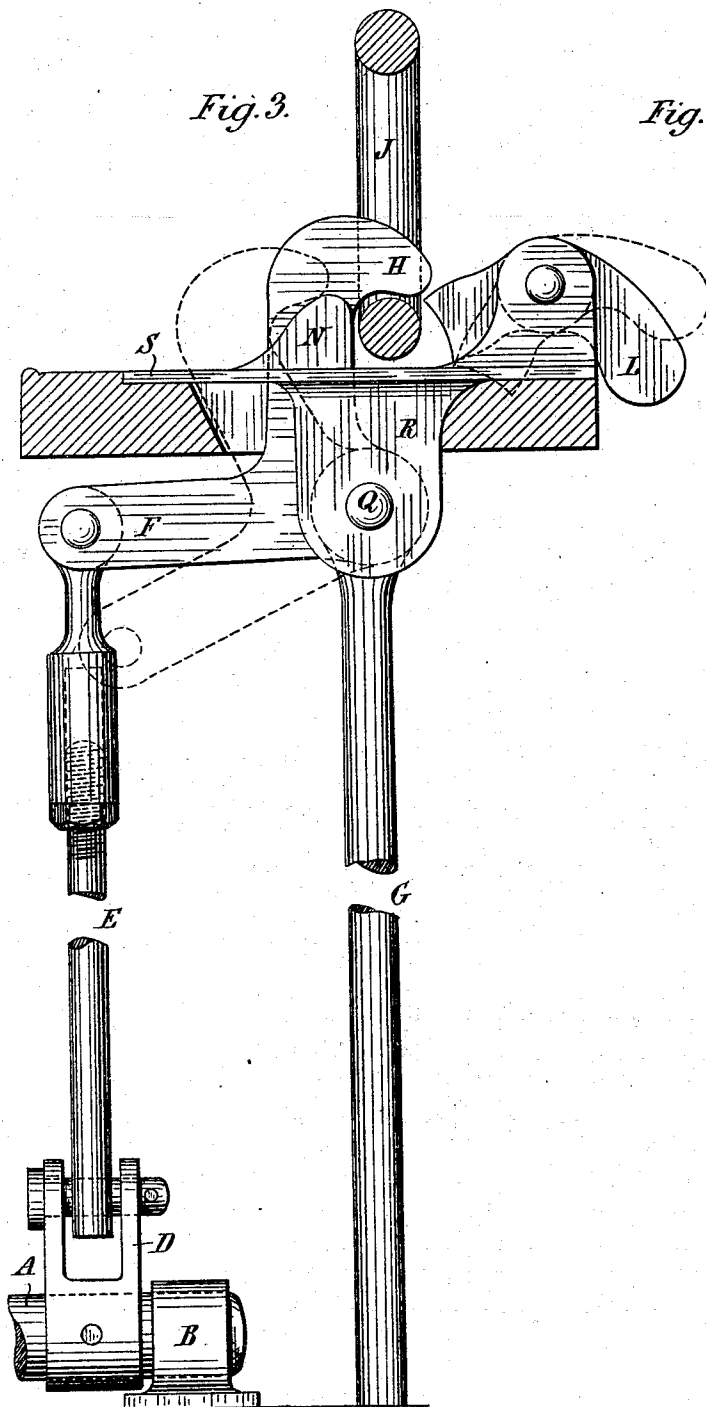
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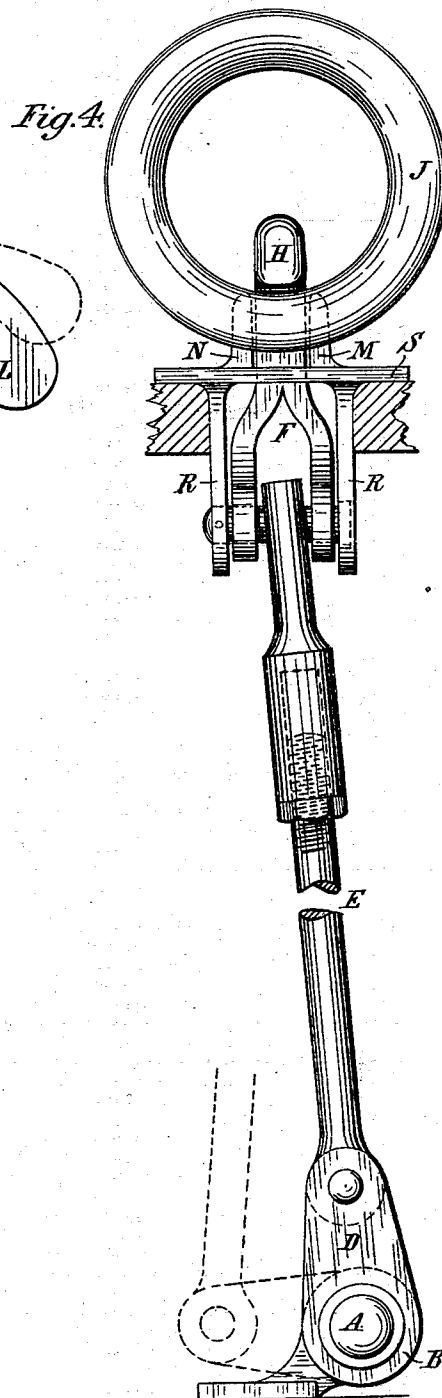
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Lyhurst Brun



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3 Sheets—Sheet 3.

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Fig. 5.

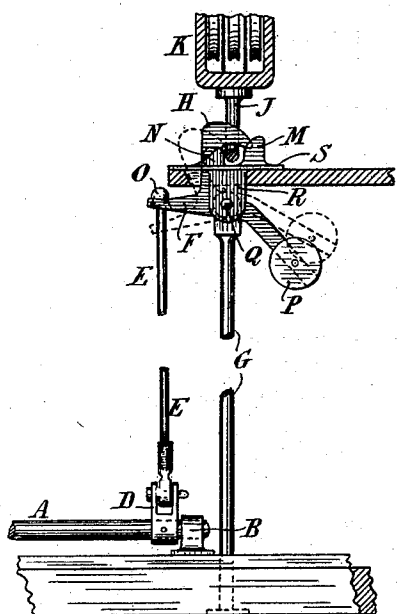
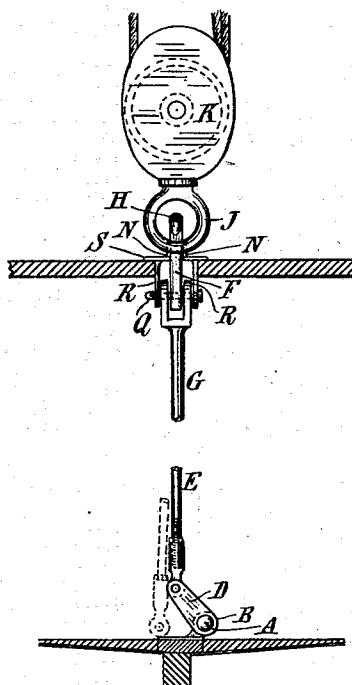


Fig. 6.



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UNITED STATES PATENT OFFICE.

WALTER H. WILSON AND WILLIAM J. PIRRIE, OF BELFAST, IRELAND.

BOAT-DISENGAGING GEAR.

SPECIFICATION forming part of Letters Patent No. 503,637, dated August 22, 1893.

Application filed December 13, 1892. Serial No. 455,005. (No model.) Patented in England June 1, 1891, No. 9,224.

To all whom it may concern:

Be it known that we, WALTER HENRY WILSON and WILLIAM JAMES PIRRIE, ship-builders, subjects of the Queen of Great Britain, residing at Queen's Island, Belfast, Ireland, have invented certain new and useful Improvements in Boat-Disengaging Gear, (for which we have received Letters Patent in Great Britain, No. 9,224, dated June 1, 1891,) of which the following is a specification,

In boat disengaging gear in which hooks at the two ends of the boat are used for connecting them to the falls and can when the boat is waterborne be released simultaneously by turning a longitudinal shaft within the boat—we make the disengaging gear so that after releasing the boat the shaft has only to be moved back again and all is ready for hooking on.

In the drawings annexed—Figure 1 is a longitudinal section of the boat with our disengaging gear. Fig. 2 is a transverse section of the same. Fig. 3 is a side elevation of the disengaging gear to a larger scale. Fig. 4 is an end elevation of the disengaging gear. Figs. 5 and 6 are similar views of a modified construction of the disengaging gear.

In the lower part of the boat and parallel to the keel a shaft A is arranged. It is mounted in suitable bearings B B and has a handle C upon it about midships by which it can be turned through an angle of forty-five degrees, more or less. Upon this shaft A there are two crank arms D D one near either end and from each crank a connecting rod E rises and is jointed to one arm of a right angle lever F. The lever F is jointed at the angle to the upper end of a bolt G which descends down through the keel and is securely fastened so as to be able to sustain the weight of the loaded boat. The pin Q which connects the lever F to the top of the bolt G also connects it to the projections R R on the under side of the plate S carrying the lugs M and N hereinafter mentioned. The other or upper end of the right angle lever F has a hook like head H and a ring J upon the lower block K of the boat lowering tackle is received under this head H. A weighted locking pawl L jointed to the thwart of the boat allows the ring J to be passed on to the hook H but so long as the hook H remains in place prevents its

escape. The form of the head of the hook H is also such that the ring cannot escape from it so long as the weight of the boat hangs by the hook. When however the weight of the boat is waterborne or nearly so, it becomes possible to move the lever handle C; the heads of the hooks H H then recede from the locking pawls L L and the rings J J of the tackle blocks are set free. To insure this lugs M N are provided upon the thwarts which prevent the rings J J being carried back by the hooks H H as they retire. The lever handle C does not necessarily require to be lashed as it cannot be moved at a wrong time without applying very great force, say of two men.

In Figs. 3 and 4 the disengaging mechanism is shown closed with the ring J engaged by the hook H. The ring J is released by turning the handle C making the lever F and hook H assume the position shown in dotted lines. After the ring J has been released the lever F and hook H are moved back to their former positions and the ring J can again be engaged by depressing the pawl L as shown in dotted lines. We may dispense with the locking pawl L and make the right angle lever F do two duties as in Figs. 5 and 6. In this case instead of fastening the end of the connecting rod E to the lever F, we make a countersunk hole at the end of the lever F in which a ball O at the end of the rod E works; and we also fix a weight P to the right angle lever F to bring the hook back to the engaging position when freed so that when it is wished to engage the ring J the weight P must be raised as shown in dotted lines Figs. 5 and 6 and the ring J placed between the lugs M and N; the weight P being then released the ring J is engaged by the hook H.

What we claim is—

1. The combination in boat disengaging gear of the pivoted suspending hooks adapted to engage with a pair of rings connected with the hoisting tackle, a shaft in the boat operated by a handle, connections between the shaft and the hooks, pivoted locking pawls arranged opposite the ends or points of the hooks for holding the rings on the hooks while the hooks remain in place, and lugs or stops on the opposite sides of the ends or points of the hooks to hold back the rings while the

hooks are being withdrawn from them, the organization being such that the rings may be separately attached to the hooks and may be simultaneously released therefrom.

- 5 2. The combination with a boat, of a pair of suspending hooks adapted to engage with rings connected with the hoisting tackle, a shaft mounted in bearings in the boat and adapted to turn axially therein, a handle for
10 operating the shaft, connections between the shaft and the hooks, whereby the hooks may be operated simultaneously, pawls arranged opposite the ends or points of the hooks to hold the rings in position in the hooks, and
15 which are free to move to allow the rings to be engaged with the hooks, while the hooks remain stationary, and stops for holding the rings against lateral movement while the hooks are being moved.

3. The combination with a boat of a pair of 20 suspending hooks having laterally projecting arms F, said hooks adapted to engage rings connected to the hoisting tackle a shaft mounted in bearings in the boat in which it is free to turn axially, rods connecting the shaft with 25 the arms F, whereby the hooks may move simultaneously, stops for holding the rings attached to the hoisting tackle in engagement with the hooks, and lugs or stops for preventing the lateral movement of the rings while 30 the hooks are being moved.

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