C. RYDELL.

BOAT RELEASING AND RESTRAINING DEVICE FOR BOAT LAUNCHING APPARATUS.

APPLICATION FILED JAN. 19, 1917.

1,253,101. Patented Jan. 8, 1918.

Inventor
Carl Rydell.

By Victor I. Evans
Attorney
To all whom it may concern:

Be it known that I, CARL RYDELL, a citizen of the United States, residing at Manila, in the Philippine Islands, have invented new and useful Improvements in Boat Releasing and Restraining Devices for Boat-Launching Apparatus, of which the following is a specification.

This Invention relates to a boat releasing and restraining device for boat launching apparatus, and, while susceptible of general use, is particularly designed to be employed in connection with the type of life saving apparatus disclosed in my prior Patent No. 1,158,319, dated May 4, 1915, and in my prior application filed July 8, 1915, Ser. No. 37,906, the present application being a continuation in part of my aforesaid application.

The primary object of the present invention is to provide a novel and improved means, associated with the fall rope or cable, for supporting and automatically releasing the boat when it reaches the surface of the water, and for holding the boat away from the sides of the vessel in its descent.

A further object of the invention is to provide a fall block and coacting restrainer of novel construction whereby, during the operation of lowering the boat, the fall block will be held properly centered to prevent casual disconnection of the boat therefrom, and the boat also guided positively in its descent and prevented from swinging either against or away from the side of the vessel.

With these and other objects in view, the invention consists of the features of construction, combination, and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawing in which:

Figure 1 is an end elevation showing one of the devices applied to one end of the boat, which has been partly lowered, the adjacent side of the ship appearing in cross section.

Figure 2 is a perspective view of the fall block on an enlarged scale, showing in full and dotted lines the normal and releasing positions of the hook.

Figure 3 is a fragmentary perspective view of the restrainer, showing particularly the construction of the sliding shoe.

Figure 4 is a detail section on line 4-4 of Figure 1.

Referring now more particularly to the drawings, I designates a fall rope or cable, which is designed to be operated and controlled from a suitable davit, and which passes around the pulley 2 carried by a fall or hook block 3. This block is hollow and composed of a pair of connected side plates between which the pulley is journaled. The side members of the block are spaced apart at their upper edges and are connected at points between the upper edges and the sides, as shown at 3'. At the lower end of this block is pivoted a supporting hook 4 which is normally held in the retracted position shown in dotted lines in Figure 2 by a spiral spring 5 carried upon a transverse pin 6 secured in ears 7 extending laterally from the side plates. The hook is adapted to engage an eye 8 upon the boat, but is normally held by the spring 5 and beyond one side of the central vertical line of the block.

When the hook is engaged with the eye 8 and the weight of the boat falls thereon, the hook will be brought to the vertical or engaging position shown in full lines in Figure 2 against the resistance of the spring 5. Just as soon, however, as the boat comes in contact with the water and floats thereon, the weight will be relieved from the hook and the spring will act to retract the hook and disengage the same from the eye 8, and thereby permit a quick cast-away from the side of the ship without the use of a man at each end of the boat to disconnect the block.

With this type of construction the men here-tofore employed to disconnect the hooks may be used to hold the boat away from the ship at the moment of embarking or to man the oars. It will, of course, be understood that while I have shown but one set of boat releasing and restraining devices used in connection with a full line attached to one end of the boat, a similar set of devices will be employed for supporting the opposite end of the boat, the two sets of devices being used in conjunction with a pair of davits.

A link 9 is pivoted to the block 3 in such position as to be swung downward over and engaged with the bill of the hook 4, whereby the entrance to the hook may be closed, the link when thus disposed in closed position being held from displacement by a detachable pin 10 passing through the hook. The purpose of employing this closure link is to hold the hook from slipping out of engagement with the eye 8 in hoisting the boat on board at times when the water is rough and it is difficult to keep the fall line taut.
In lowering a boat this link 9 is swung back out of operative position to permit of the automatic release of the hook from the eye as previously described.

I provide a means for holding the fall block 3 centered and the block and boat properly spaced from the side of the ship, whereby the boat is lashed to the ship and restrained from swinging toward or from the same while being lowered. To this end I employ a restraining device 11 in the form of a rod 18 of sections 13 and 19 threaded at their inner ends to receive a turn buckle 14, whereby the length of the rod may be varied as required. The outer end of the rod section 12 is provided with a hook 15 to engage an eye 16 on the fall block 3, while the relatively outer end of the rod section 13 is provided with an eye 17 pivotally engaging a coupling member or staple 18 on a shoe or sliding plate 19. This shoe or sliding plate 19 is bifurcated at its ends to receive friction rollers 21 journaled thereon and is shouldered, as shown at 21, so as to be engaged with and retained within a channeled track 22 secured to the side of the vessel and extending from the deck to the water line of the vessel. The restraining device is raised and lowered with the fall block and its sliding shoe or plate slides in the truckway to accommodate such movements, the two restrainers employed at the opposite ends of the boat serving to hold the fall blocks properly centered from vertical displacement and the boat from swinging either toward or from the side of the vessel, the advantages of which will be apparent.

It will be seen from the foregoing description that my invention provides a fall block which is adapted when desired to effect the automatic and quick release of a boat which is being lowered as soon as it reaches the water, but which may be by the use of the throat latch or link held in engagement with the boat to secure safety against the release of the boat while the latter is being hoisted aboard. It will also be seen that my invention provides a means for securing greater efficiency of the fall block by maintaining it in a center position, and at the same time preventing the boat from swinging out of a direct vertical path while being hoisted or lowered.

I claim:

1. In a boat hoisting or lowering apparatus, a fall block, a hook pivoted thereto, means for automatically controlling the position of the hook, and an adjustable restraining device forming a rigid guiding arm adapted to have connection with the side of a vessel and with said block.

2. In a boat hoisting or lowering apparatus, a fall block, a hook pivoted thereto, means for automatically controlling the position of the hook, and an adjustable restraining device forming a rigid guiding arm adapted to have connection with the side of a vessel and with said block.

3. In a boat hoisting or lowering apparatus, a fall block having a hook to engage the boat, and means for movably connecting the block with the side of the vessel for centering the block and holding the boat from swinging movement, said means including a slideable member and means of variable length for connecting the latter with the block.

4. In a boat hoisting or lowering apparatus, a fall block including a plurality of members spaced apart at their upper edges providing an opening for a cable and connected at points adjacent the spaced portions, permitting the cable to pass between the connected portions, a hook pivotally connected with the block at a point immediately below said opening for the cable, and means for moving the hook to releasing position when pressure is removed therefrom.

5. In a boat hoisting or lowering apparatus, a fall block, a pivoted hook thereon, a spring for shifting the hook to boat releasing position, a latch link for holding the hook in retaining position against the action of the spring, and means for retaining said latch device in engagement with the hook.

6. In a boat hoisting or lowering apparatus, a fall block, a guide upon the side of the ship, and a restraining device slidably engaging the guide and coupled to the fall block, said restraining device including an adjustable member and said device being mounted for retaining a position substantially perpendicular to the guide and to the direction of movement of the block.

7. In a boat hoisting or lowering apparatus, a fall block provided with boat engaging means, a channel guide upon the side of the ship, a restraining device slidably engaging the guide and coupled to the fall block, and means forming part of said device for engaging the broad surface of the channel and the flanged portion thereof.

8. In a boat hoisting or lowering apparatus, a fall block having an eye and boat engaging means, a guide upon the side of the ship, a member slidably mounted in said guide, and a restraining rod pivoted to said sliding member and detachably coupled to the fall block.

CARL RYDELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."