

Jan. 19, 1932.

L. EDWARDS

1,842,014

SELF RELEASING GEAR

Filed Feb. 14, 1931

2 Sheets-Sheet 1

Fig. 1.

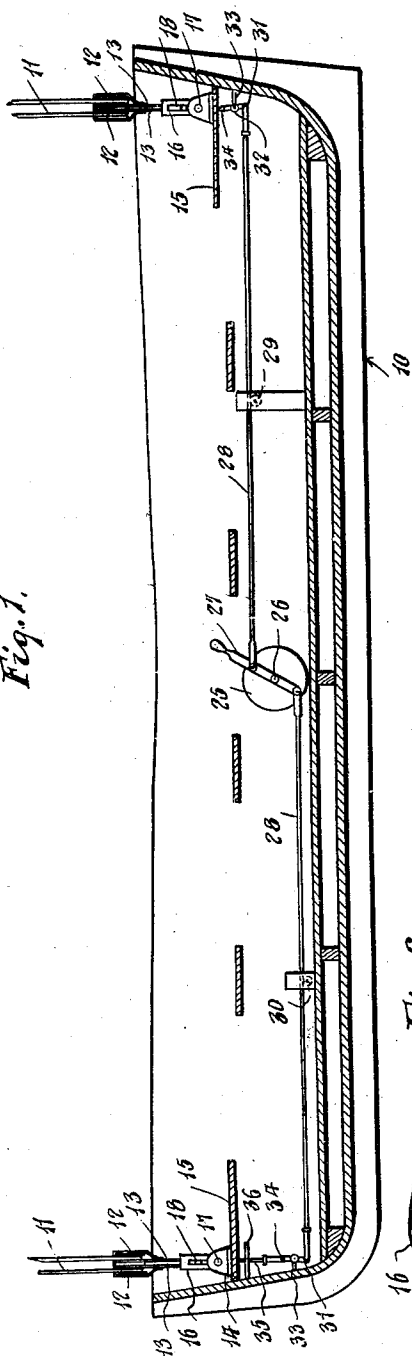


Fig. 2.

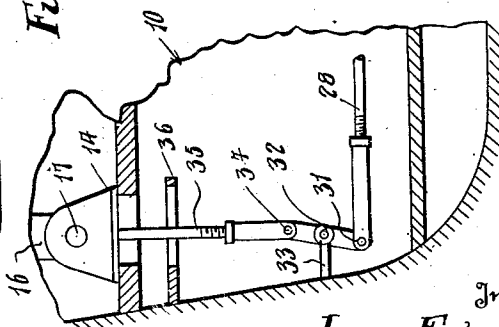
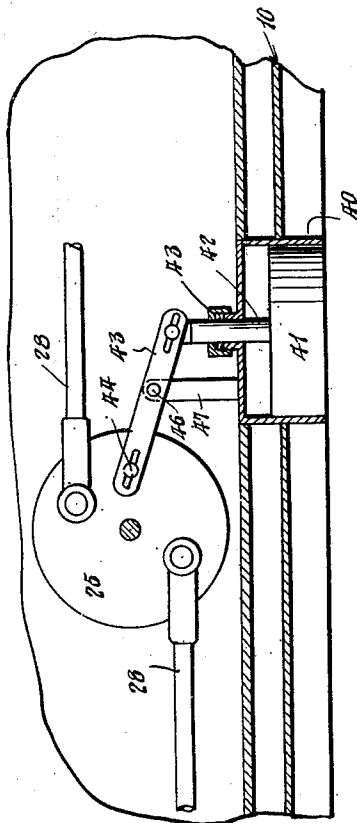


Fig. 3.



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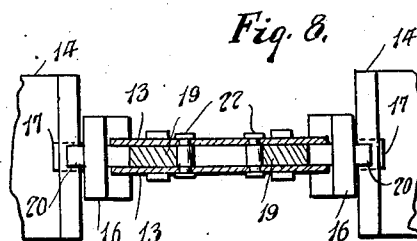
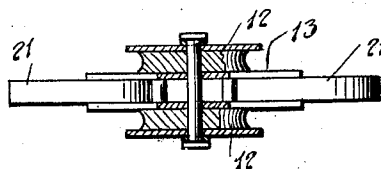
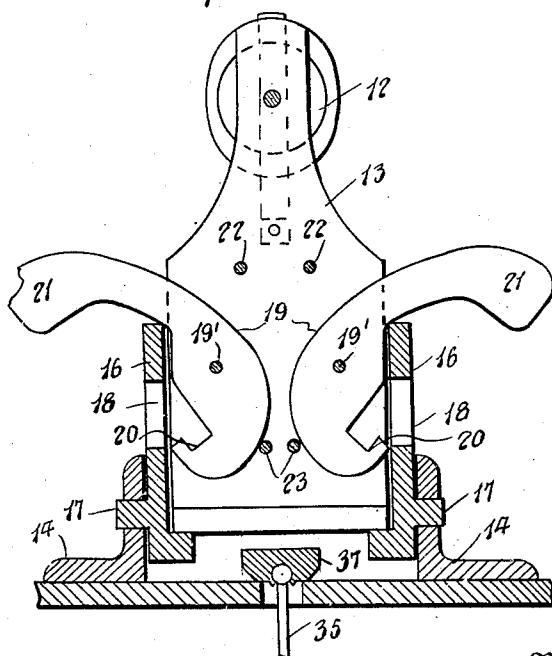
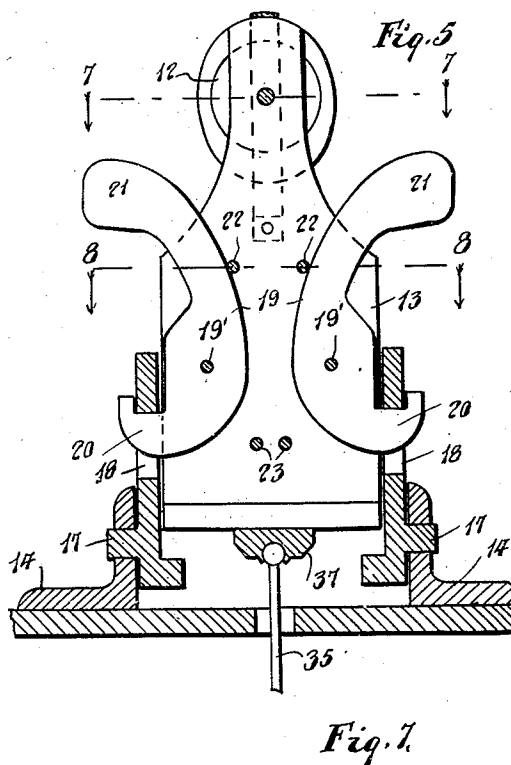
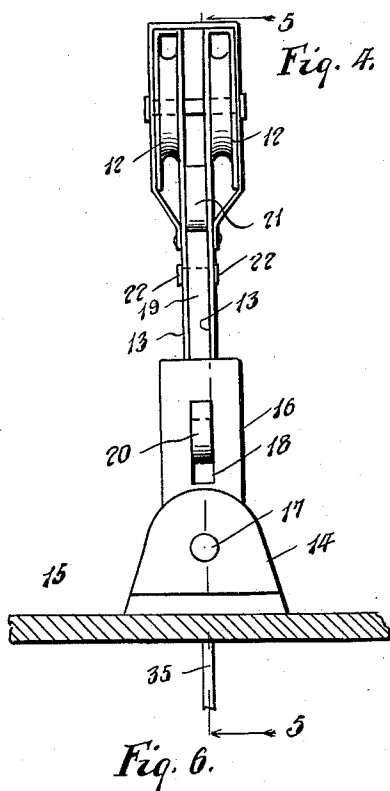
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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SELF-RELEASING GEAR

Application filed February 14, 1931. Serial No. 515,858.

This invention relates to mechanism whereby a lifeboat or other vessel may be releasably connected to the hoisting and lowering tackle of a main vessel or davit.

5 An important object is to provide a means which will accomplish the releasing action automatically upon the boat engaging the water.

10 It is also aimed to provide a novel connecting means between the tackle and the boat.

15 The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:—

20 Figure 1 is a longitudinal sectional view through a boat equipped with my improvements,

Figure 2 is an enlarged longitudinal sectional detail,

Figure 3 is an enlarged longitudinal sectional detail taken through a modified form,

25 Figure 4 is an enlarged side elevation of one of the connections between the tackle and the boat,

Figure 5 is a vertical sectional view taken on the line 5—5 of Figure 4,

30 Figure 6 is a view similar to Figure 5 but showing the parts in released condition,

Figure 7 is a cross sectional view taken on the line 7—7 of Figure 5, and

35 Figure 8 is a cross sectional view taken on the line 8—8 of Figure 5.

Referring specifically to the drawings, 10 designates a conventional boat, such as a lifeboat or the like adapted to be carried on a larger vessel and suspended by tackle such as that designated 11, suitably carried by the main vessel and usually by the davits.

40 Such tackle 11 by means of pulleys or sheaves 12 carry connecting blocks or plates 13 which are adapted to be releasably connected or attached to the boat 10.

45 To this end, spaced apart brackets 14 are suitably fastened on gunwales or other supporting parts 15 which in turn carry keeper members 16, which may be either rigidly or

50 pivotally connected to the brackets 14 by

means of lugs 17. The keepers 16 have openings 18 which are adapted to be releasably engaged by latch members 19 pivotally mounted as shown at 19'. In the connected position of the parts, they appear as in Figure 5. Such latches 19 have hook portions at 20 which extend through the openings 18 and engage adjacent portions of the keepers 16. Latches 19 also have their upper ends extended outwardly of the hooks 20 to provide weighted ends 21, which are also capable of use as handles. The blocks or plates 13 are vertically slidable. The weight of the boat 10 holds the parts connected or locked as in Figure 5, aided by the engagement of pins 22 carried by the plates or bodies 13 and engaging the latches 19. However, upon relative movement occurring between the boat 10 and plates 13, due to the weight of the latches 19, they will move to the release position shown in Figure 6, their inward movement being limited by pins 23 carried by the plates 13.

The release of the latches is accomplished automatically.

75 As shown in Figures 1 and 2, a disk 25 is provided to operate on a horizontal axis 26. Rigid with the disk is a hand lever 27, from which pitmen 28, pivoted thereto, extend, being suitably guided as at 29 and 30. Such pitmen connect with levers 31 which are pivotally connected to the pitmen and at 32, pivotally connected to the boat at 33 and at 34, pivotally connected to releasing rods 35 which are suitably guided by brackets 36 secured to the boat, and extend through the gunwales 15 and at their upper free ends carry universally connected heads 37, which abut the lower ends of the plates or blocks 13. It will be noted that the levers 31 are preferably at a downward and outward angle, so that downward pressure will not tend to operate the disk 25 or lever 27.

80 It will be understood that when the boat 10 is secured to tackle 11 hooks 20 will be held in engagement with keeper members 16, through the openings 18 by moving lever 27 to hold heads 37 in engagement with the blocks 13, in the position shown in Figure 5. When the boat is over the side of the vessel

lever 27 will then be moved in the opposite direction to free engagement of the heads with the blocks 13, so that when the boat is lowered to the water the weight of the blocks will cause them to move downwardly to the position shown in Figure 6 and the weighted ends 21 of latch members 19 will move the hooks 20 inwardly of the casings forming the blocks 13.

In addition to accomplishing the said end manually through operation of lever 27, it may be accomplished automatically as shown particularly in Figure 3. In said figure, the hand lever 27 is dispensed with and in lieu thereof, a chamber 40 is provided which mounts a plunger 41, adapted to impinge upon the surface of the water upon which the vessel 10 is launched. Such plunger 41 has a stem 42 rising therefrom and passing through a water-tight stuffing box 43 in the bottom of the vessel. The rod 42, within the vessel, is pivotally connected to a lever 43, and also pivotally connected at 44 to the disk 25. The lever is fulcrumed at 46 on a standard 47 within the vessel.

In this latter construction the weight of plunger 41 serves to hold heads 37 engaged with blocks 13 until the boat reaches the surface of the water when the water entering chamber 40 will raise the plunger, acting as a float, and the heads 37 will be moved downwardly to permit automatic release of the hooks 20 in the same manner as above described.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:—

1. A device of the class described comprising spaced keepers, a block slidably mounted between the keepers, latch members pivoted to the block and engageable with the keepers.

2. In combination, a vessel, suspending means having plates, latch means on the plates engaging the vessel and held engaged therewith by the weight of the vessel, actuating rods for the plates, and a common means to move said rods.

In testimony whereof I affix my signature.

LOWI EDWARDS.