March 28, 1944. J. SZODOMKA 2,345,366

AUTOMATIC RELEASING HOOK FOR LIFE SAVING CRAFTS

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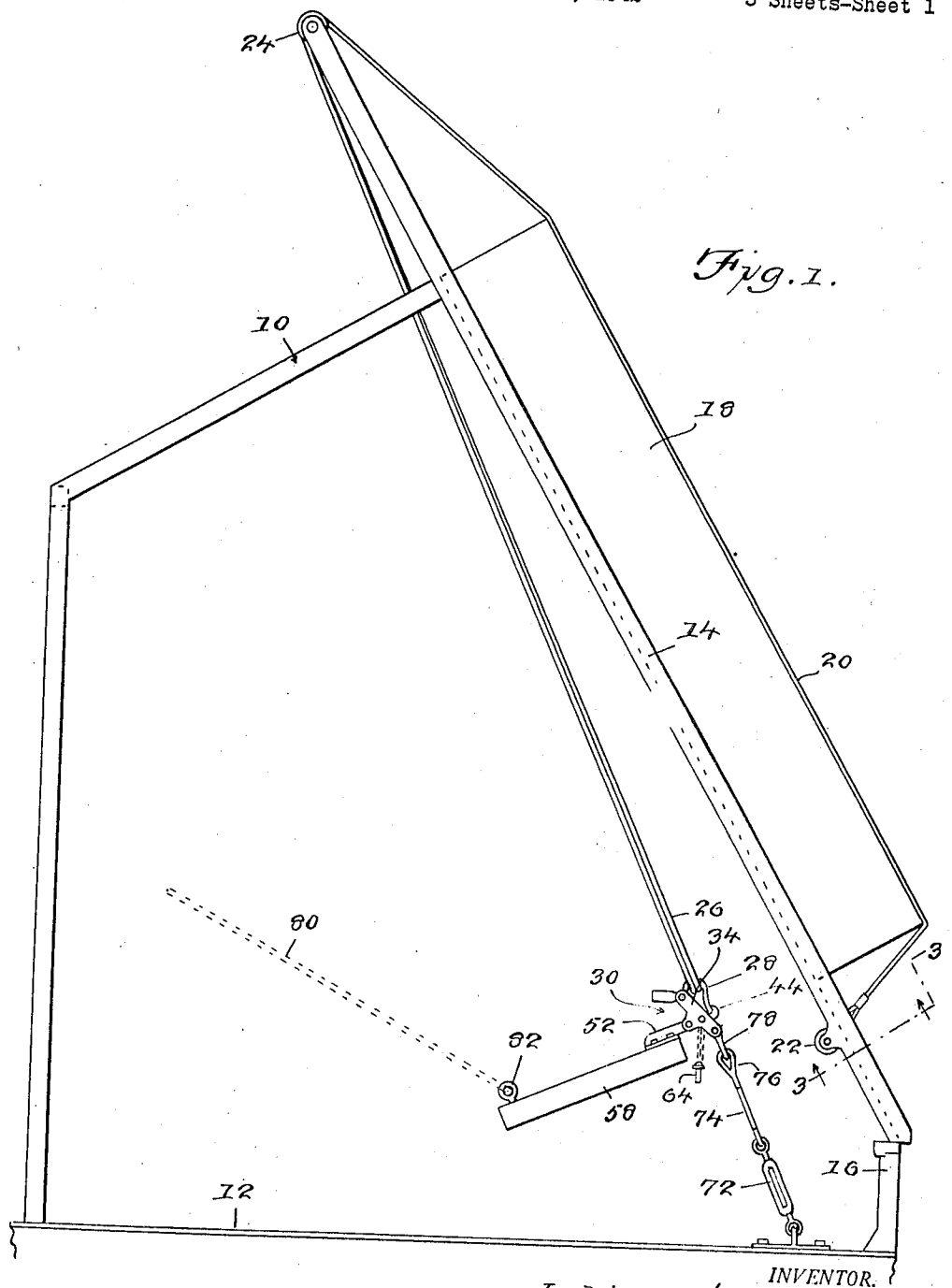

Fig. 1.

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Fig. 2.

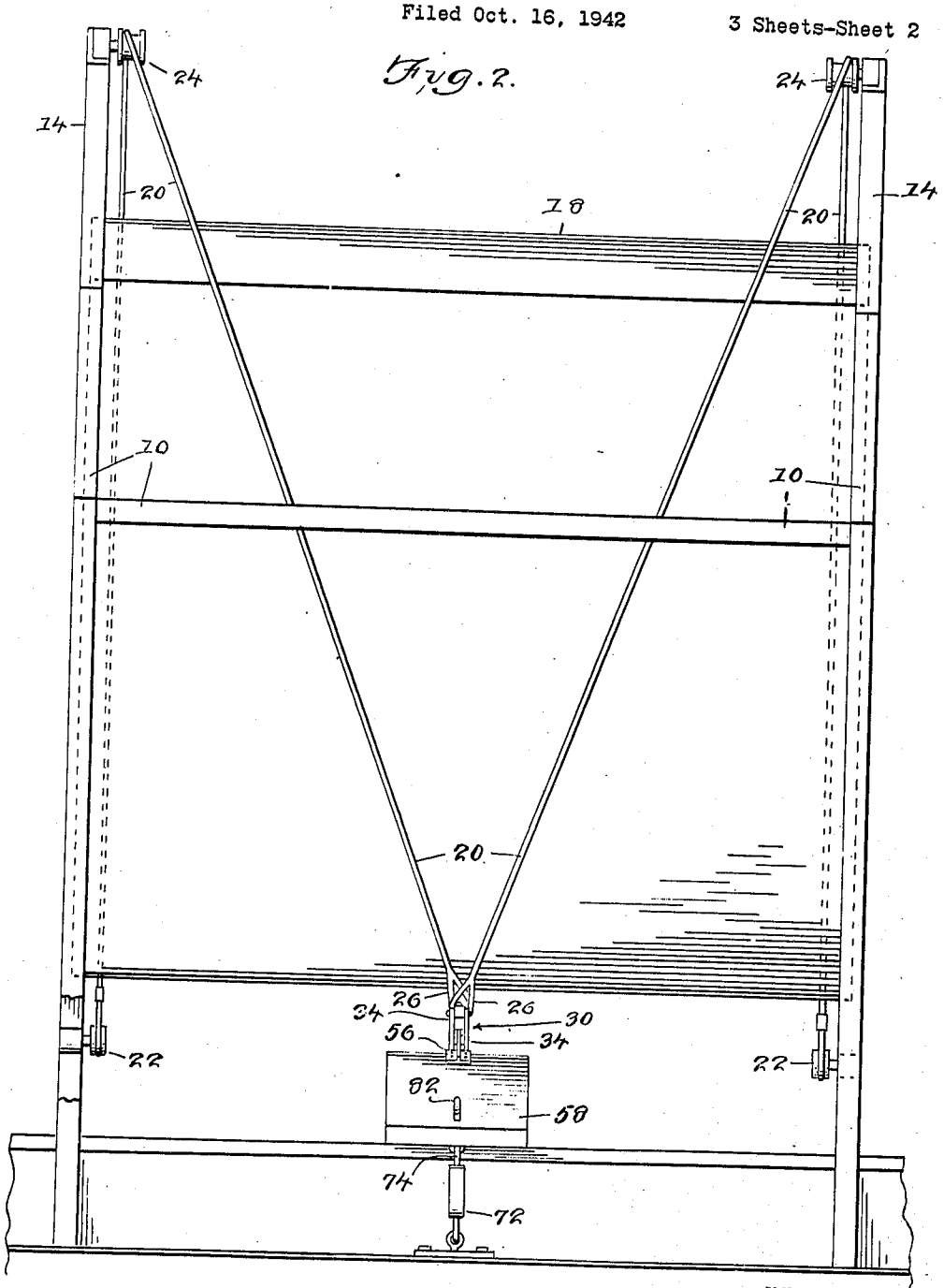

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Fig. 3.

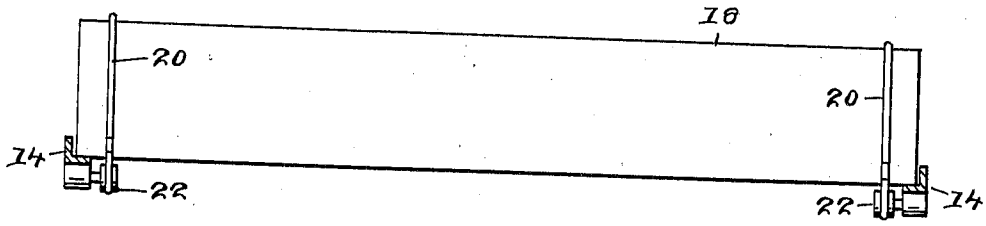

Fig. 4.

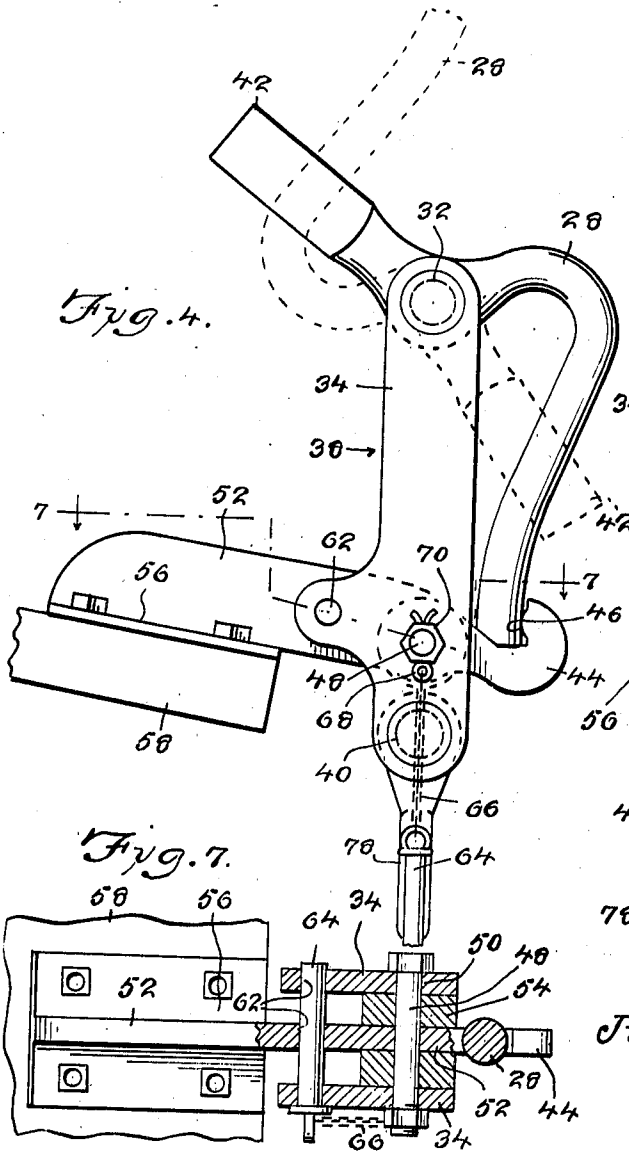

Fig. 5.

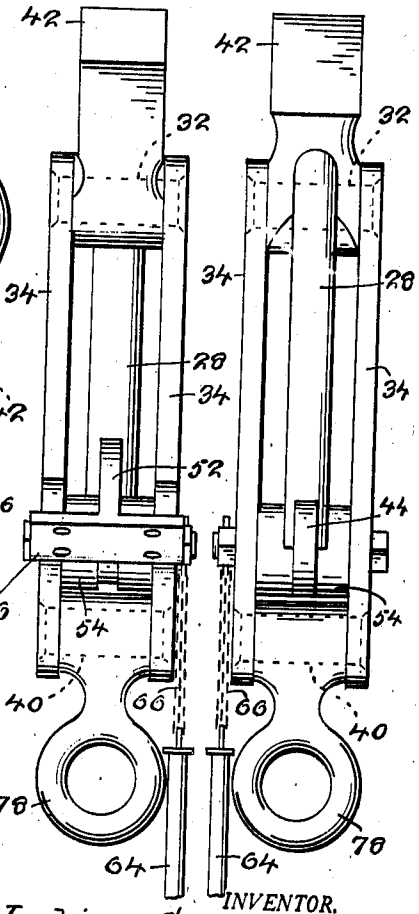

Fig. 6.

Fig. 7.

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Patented Mar. 28, 1944 2,345,366

UNITED STATES PATENT OFFICE

2,345,366

AUTOMATIC RELEASING HOOK FOR LIFE-SAVING CRAFTS

Julius Szodomka, New Orleans, La.

Application October 16, 1942, Serial No. 462,297

4 Claims. (Cl. 9—23)

My invention relates to life saving devices, such as life rafts, life boats, and the like, and has among its objects and advantages the provision of an improved hook which is self-opening to release the life saving craft as when a ship sinks to a predetermined level.

In the accompanying drawings:

Figure 1 is a view illustrating a life craft mounted on a ship with the hook arranged to release the life saving craft when the ship sinks sufficiently far to bring the hook actuator float into the water.

Figure 2 is a view taken as when standing on the deck of the ship.

Figure 3 is a sectional view along the line 3—3 of Figure 1.

Figure 4 is a side view of the hook.

Figure 5 is a face view.

Figure 6 is a view of the opposite face of the hook, and

Figure 7 is a sectional view along the line 7—7 of Figure 4.

In the embodiment of the invention selected for illustration, Figures 1 and 2 illustrate a life craft stanchion 10 mounted on the deck 12 of the ship. Two angles 14 are supported on the ship rail 16 and the stanchion 10. These angles are inclined to the vertical and are arranged in parallelism to constitute rails for supporting a life saving craft 18, such as a raft.

Cables 20 are connected at their lower ends with attaching devices 22 mounted on the rails 14 and extending upwardly around grooved wheels 24 mounted at the upper ends of the two rails. The cables pass downwardly and are provided with loops 26 at their lower ends releasably connected with a pelican hook 28 of an automatic cable releasing device 30. Thus disconnection of the loops 26 from the hook 28 releases the craft 18 and permits the latter to slide into the water.

In Figures 4 through 7, the hook 28 is pivotally mounted on a pin 32 connecting the upper ends of two spaced and parallel straps 34 of a frame 38, the straps being connected at their lower ends by a rivet 40. The hook 28 is counterweighted at 42 to swing in a counterclockwise direction when released by a catch 44.

The catch 44 is provided with a rounded face 46 which normally engages the lower end margin of the hook 28 to hold the latter in the position of Figure 4, at which time the loops 26 connected therewith are anchored until such time as the catch 44 is pivoted in a clockwise direction and out of holding engagement with the hook. The hook 44 is pivotally mounted on a bolt 48 extending through openings 50 in the straps 34. The bar 52 of the hook is loosely positioned between washers 54 mounted on the bolt 48 and is of sufficient length to provide support for a plate 56 to which a float member 58 is bolted or otherwise attached thereto.

While the ship is in port, the catch 44 may be latched against accidental movement by a pin 64 extending through aligned openings 62 in the straps 34 and the bar 52. At seat, the pin 64 is suspended from a chain 66 attached to a cotter pin 68 passing through the bolt 48 and a nut 70 on the bolt.

At the present time, life boats and life rafts are secured in place by various types of hooks, all having collars which slip over the locking devices. Such collars, due to forces effective on the hook are especially difficult to slip off and frequently requires considerable time for dislodging purposes. This may result in partial release only of the life saving crafts when the crew and passengers are forced to abandon the ship. In the instant case, the float 58 is spaced slightly above the deck 12 and is so arranged as to pivot the hook 44 out of holding engagement with the pelican hook 28 when the water rises to a point which causes the float to pivot the hook in a clockwise direction, as when viewing Figures 1 and 4.

The cables 20 are anchored to the deck 12 through the medium of a turnbuckle 72 attached to a short line 74 having a loop 76 connected with an eye 78 mounted on the lower rivet 40. When the pelican hook 28 is released, the weight of the craft 18 exerts a pull on the cables 20 to disconnect the loops 26 from the pelican hook, thus permitting the life craft to slide into the water.

In Figure 1, the craft 18 may intentionally be released by exerting a pull on a line 80 attached to an eye 82 connected with the float 58.

Without further elaboration, the foregoing will so fully explain my invention, that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

1. In a vessel having an inclined support and a life craft mounted on the support, the combination of a flexible life craft supporting line means having its ends fixedly related to the vessel and looped about the life craft and the support to hold the life craft on the support, a float actuated releasing means interposed in said line means for disuniting the latter and releasing

the life craft when the float is brought into the water, and means for latching said releasing means against accidental life craft releasing operation.

2. In a vessel having an inclined support and a life craft mounted on the support, the combination of a flexible life craft supporting line having one of its ends fixedly related to the vessel and looped about the life craft, the other end of said line being provided with loop means, a frame fixedly related to the vessel, a hook pivotally mounted on the frame and extending through said loop means, a pivoted catch normally latching said hook, a float carried by the catch, said hook being counterweighted to swing to an open position when released by said catch, and means for latching said catch against accidental pivotal movement.

3. An automatic releasing hook for life saving crafts comprising two spaced straps, rivets at the ends of the straps fixedly relating one to the other, a counterweighted pelican hook pivotally mounted on one of said rivets, a bolt extending through said straps, a catch pivoted on said bolt and normally engaging said pelican hook to hold the latter in a closed position, an anchoring eye connected with the other of said rivets, a bar on said catch, a float attached to said bar for pivoting the catch to a releasing position with respect to said pelican hook, and means acting on said straps and said bar to latch the catch against accidental pivotal movement.

4. An automatic releasing hook for life saving crafts comprising a substantially upright frame, means connected to the lower end of the frame for connecting the frame to the deck of a ship, a pelican hook located at one side of the frame and having its upper end pivoted to the frame, a counterweight fixed to the pivoted end of the hook and located at the opposie side of the frame, a bar extending through the frame near the lower end of the hook and pivoted to the frame to provide short and long arms, the short arm of the bar extending beyond the said first side of the frame and formed to provide a catch engaging the lower end of the hook, the long arm of the bar extending beyond the opposite side of the frame, and a float member secured to the long arm of the bar.

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