F. G. ERRICSON.

LIFE BOAT GRIP.

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1,264,782.

Patented Apr. 30, 1918.

Fig. 1.

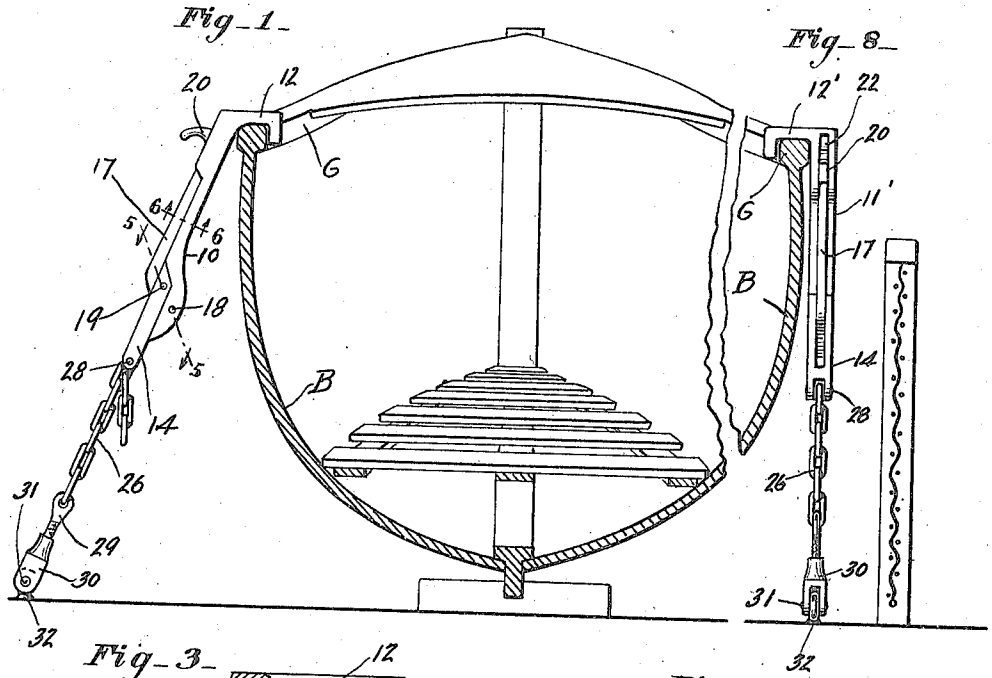


Fig. 8.

Fig. 3.

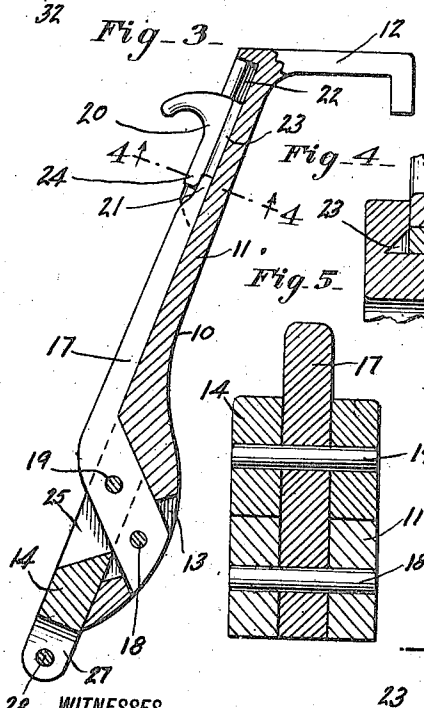


Fig. 4.

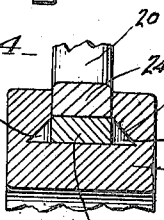


Fig. 5.

Fig. 2.

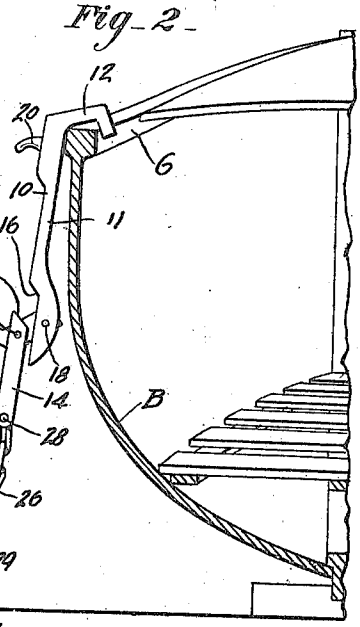


Fig. 7.

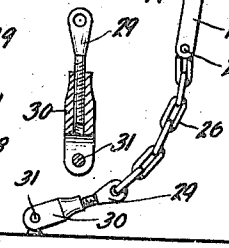
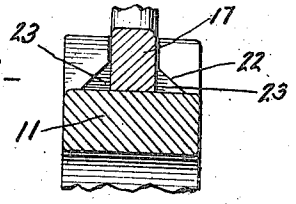


Fig. 6.



WITNESSES

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LIFE-BOAT GRIP.

1,264,782. Specification of Letters Patent. Patented Apr. 30, 1918.

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To all whom it may concern:

Be it known that I, FRANK G. ERRICSON, a citizen of the United States, and a resident of Green Creek, in the county of Cape May and State of New Jersey, have invented a new and Improved Life-Boat Grip, of which the following is a full, clear, and exact description.

This invention relates to ships and has particular reference to grips or devices employed for lashing or securing life boats or the like on ships' decks, but preventing them from swaying, tilting, or swinging with respect to their davits or other overhead supporting means.

Among the objects of the invention is to provide a grip that primarily will hold the boat with absolute security, and which from the very nature of the employment or adaptation thereof is required to be easily and quickly released so that in the event of emergency requiring the launching of the boat no time shall be lost in freeing the boat from its anchorage on the deck or other place of support.

A still further object of the invention is to provide a grip so constructed that its release shall not be interfered with by snow, ice, or any other weather condition.

And yet an object is to provide grips for life boats that are adapted to be released readily from the boats by any passenger or occupant of the same.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a vertical transverse section of a boat supported in position upon a deck by my improvement.

Fig. 2 is a view corresponding to the left side of Fig. 1, but indicating the grip in its released position.

Fig. 3 is a vertical sectional view of the main part of the improvement showing particularly the relation of the lever to the trigger or catch.

Fig. 4 is a horizontal sectional detail on the line 4—4 of Fig. 3.

Fig. 5 is a sectional detail on the line 5—5 of Fig. 1.

Fig. 6 is a transverse sectional detail on the line 6—6 of Fig. 1.

Fig. 7 is a detail view of the shackle making connection with the deck; and

Fig. 8 is a view corresponding to Fig. 1, but indicating a slight modification in design of my improvement, fully described below.

Referring now more particularly to the drawings, I show my invention as comprising a main body portion indicated as a whole at 10 and comprising four main parts as follows: A shank member 11 having a hook 12 at its upper end adapted to engage over and securely hold upon the gunwale G of the boat B and having at its lower end a socket 13; a bar member 14 having its upper end beveled at 15 for direct coöperation in a recess 16 of the shank member when the bar member lies in longitudinal alinement with or as a continuation of the main portion of the shank member in the locking or holding position of the grip; a lever member 17 having pivotal connection at 18 and 19 with the socket and bar members respectively and having a longer arm adapted to lie against the outer face of the main straight portion of the shank in holding, and a catch member 20 movably connected to the upper end of the shank member and adapted to engage over the otherwise free upper end 21 of the lever.

Noting now these several parts with some particularity, it will be observed that the upper portion of the shank member at its outer face is provided with a dovetailed channel 22 along which the catch 20 is adapted to slide, laterally projecting flanges 23 of the catch member having interlocking engagement in the channel 22 preventing outward or lateral displacement of the catch from the shank but permitting easy endwise movement of the catch. The lower end of the catch member consists of a lug 24 which projects below the flanges 23 where it overlaps the end 21 of the lever. See Fig. 3. The short arm or pivot portion of the lever extends at an oblique angle from the longer arm portion thereof, the end of the shorter arm projecting into the socket 13 through which the pivot 18 pro-

jects. Said shorter arm also lies within a socket 25 formed in the upper end of the bar member and through which the pivot pin 19 projects parallel to the pivot 18. The hook 12 may be of any desired form or construction adapted, however, to conform with the shape of the gunwale but having reliable engagement thereover preventing any possibility of release of the body prematurely.

Any suitable flexible connections may be made between the bar 14 and the deck or other point of anchorage for the grip. The means I indicate for this purpose includes a short chain 26 any link of which is adapted to be secured in the socket 27 at the lower end of the bar member and held by a pin 28, while the lower link of the chain is connected to the threaded bolt 29 of the shackle, the body of which 30, is pivoted at 31 to a cockeye 32, or the like fixed to the deck. The construction of the shackle indicated best in Fig. 7 adapts it for accurate adjustment as to length of the flexible connection, the approximate length thereof being determined by selection of the link secured at the pin 28. In other words with the shackle fixed to the deck the operator in fitting the grip to the boat B will approximate the desired length of the shank by the selection of the desired link to the chain 26 and then he will accurately adjust the length by a rotation of the bolt 29 in the body portion of the shackle so as to cause the grip to be taut when the lever 17 is swung up to its locking position as shown in Figs. 1 and 3.

By comparison now of Figs. 2 and 3 the action of the device will be readily understood in the release of the boat. In the locking or holding position of the grip the swinging of the lever 17 around the pivot 18 into locking position carries the pivot 19 from a point below the pivot 18 to a point well above the same. In other words that portion of the lever between the pivots 18 and 19 constitutes in effect a link between the other two main portions of the grip, said link being effective to make a decidedly longer connection when the lever is loose than when the lever is locked. From this it follows that with the grip snug or taut in the locking position of the lever in Figs. 1 and 3 upon release of the lever it will swing freely around the pivot 18, such swinging movement being initiated by and made effective by the tension set up in the grip during the locking thereof. Hence when the lever is released and the link portion thereof between the two pivots is hanging pendent from the pivot 18 the grip as a whole between the gunwale and the shackle is immediately made so loose that the hook 12 may be passed easily over the gunwale and freed therefrom.

While the strain or tension on the grip incident to the setting or locking thereof in the normal or holding position may be considerable, such strain is borne primarily on the two pivots 18 and 19 but with a secondary moment tending to swing the lever around the pivot 18. The secondary moment is resisted with relatively slight pressure of the lug 24 upon the point 21 of the lever, therefore, the strain tending to swing the upper end of the lever outwardly from the shank is comparatively insignificant with respect to the force required to slide the catch 20 upwardly along the channel 22 which may be easily done by a finger of either hand of the operator when the boat is to be released. In the practice of my invention I preferably fill the joints or crevices of the shank and lever members with tallow, or its equivalent, for the purpose of excluding rain which might freeze and otherwise interfere with the freedom of movement of the parts at the time a release of the boat may be required.

In the preferred form or adaptation of the invention I indicate the lever 17 as movable around the pivot 18 in a plane transverse to the longitudinal axis of the boat. In some instances, however, this adaptation is not expedient, especially where there is an obstacle such as a rail, another boat or other obstacle placed in close priximity to that portion of the gunwale or boat to be anchored or lashed. To this end I show in Fig. 8 a slight modification in form of the shank structure wherein the hook 12′ is indicated as projecting laterally from the upper portion of the shank 11′, the arrangement being such that the lever 17 will swing freely in a plane close and parallel to the side of the boat. In every other respect the grip is essentially the same as has already been fully set forth.

I claim:

1. The herein described life boat grip comprising a shank member having a rigid hook to engage over the gunwale, a bar member, a lever pivotally connected to both the shank and the bar member and serving as a link to increase the effective length of the device in one position while in its normal locking position it serves as a tightener, catch means slidable along the shank member to hold the lever in holding position, and flexible connections between the bar member and the deck.

2. In a life boat grip the combination of a main body portion having a rigidly connected hook to engage over the gunwale of the life boat, and flexible connecting means between said body portion and the deck, said connection serving to permanently connect the body to the deck and including means to accurately adjust the length of the device, said body member including a pivoted hand controlled lever comprising a link

for quickly extending the length of the body portion to free the hook from the gunwale.

3. In a life boat grip, the combination of a body portion comprising a shank, a bar member in longitudinal alinement therewith, a lever pivotally connected to both the shank member and the bar member and constituting a connecting link between the shank and bar members, and a movable catch coöperating with the free end of the lever to hold the bar member in locking position with the body member thereby contracting its length, said body member including a hook to engage over the gunwale, and flexible means connecting the bar member to the deck.

FRANK G. ERRICSON.

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