O. J. McGOWAN.

DEVICE FOR SUSPENDING SHIPS' BOATS FROM DAVITS.

APPLICATION FILED MAY 22, 1918.

1,275,987.

Patented Aug. 13, 1918.

2 SHEETS—SHEET 1.

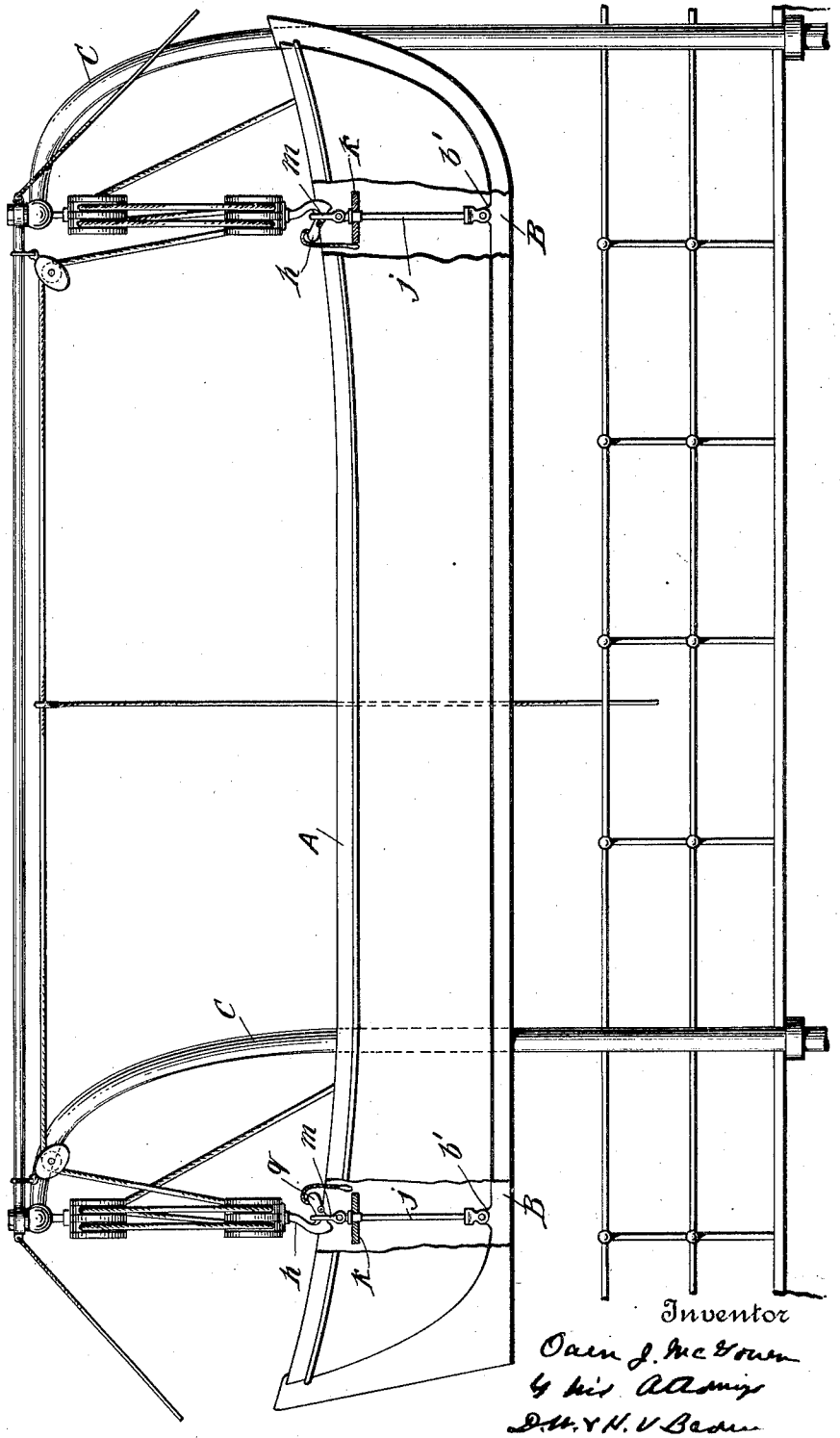


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 4.

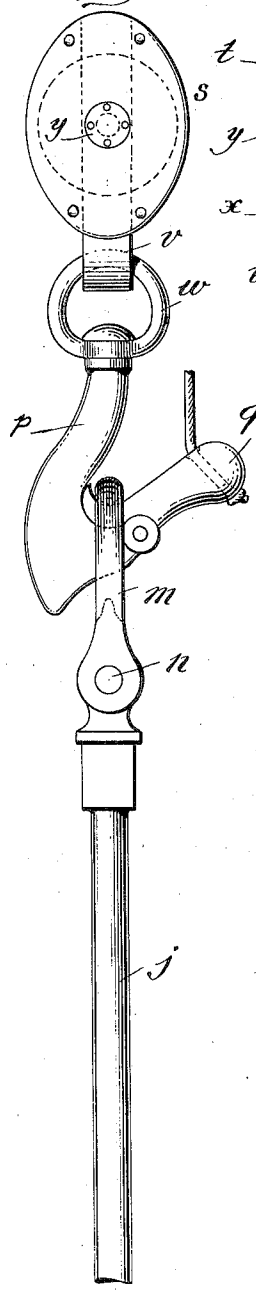


Fig. 5.

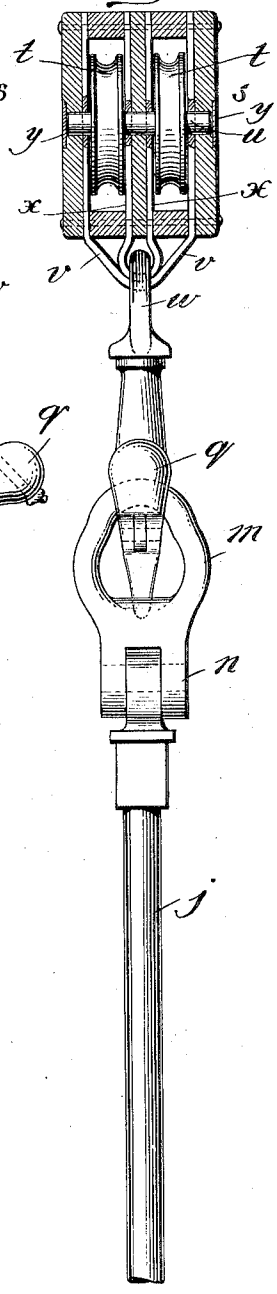


Fig. 2.

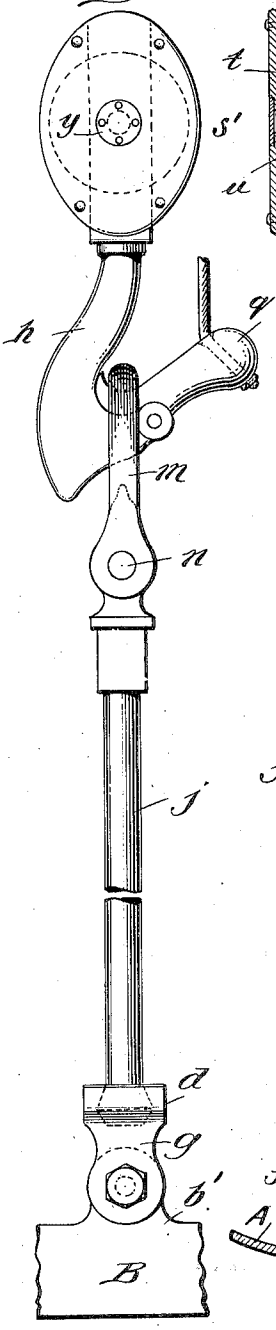
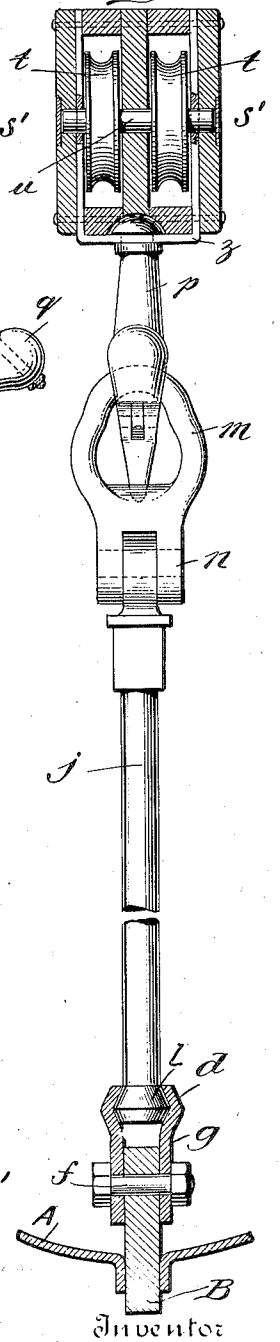


Fig. 3.



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UNITED STATES PATENT OFFICE.

OWEN J. McGOWAN, OF BROOKLYN, NEW YORK.

DEVICE FOR SUSPENDING SHIPS' BOATS FROM DAVITS.

1,275,987. Specification of Letters Patent. Patented Aug. 13, 1918.

Application filed May 22, 1918. Serial No. 236,043.

To all whom it may concern:

Be it known that I, OWEN J. McGOWAN, a citizen of the United States, and a resident of the borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Devices for Suspending Ships' Boats from Davits, of which the following is a specification.

This invention relates to improvements in devices for suspending ships' boats from davits.

The invention is particularly adapted for use with metal life-boats which are suspended from ships' davits by Raymond's automatic releasing hooks, United States Patents Nos. 751,205 and 894,345, but it is also adapted to be used in connection with the suspension of other boats, such as power launches, and from any davits or other means for suspension of boats on vessels.

The use of metal hulled life-boats, in place of wooden hulled, is now becoming general, because of the greater strength, durability and other advantages of the metal boats. But the proper connection of the suspending shackles, by which the boats are suspended from the davits, has proved to be a matter of great difficulty, and especially when the shackles are such as are suitable for engagement with said automatic releasing hooks on the davit tackles and falls. The life-boats, and especially when loaded with people, are of such great weight that the suspending devices which connect the shackles with the boats must be very securely fastened to the boats, and also be of such shape and construction as to have the necessary strength in themselves, and be securely fastened to the life-boat, without interference with readily attaching and particularly the automatic detaching of the shackles from said automatic releasing hooks.

In practice, I have found that the only reliable way in which the shackles can be secured to metal life-boats is by suspending the shackles from the keel of the boat, so that the whole great weight, even of the loaded boat, is suspended from the keel. No connection with any other part of the boat is adequate, and when the boat-gear is connected with any other part of the boat than the keel there is liability of the boat-gear breaking away from the boat, or of other serious accidents occurring.

This invention therefore, first provides means for effecting the suspension of the boat-gear from the keel conveniently and securely.

This invention also relates to the provision of what I term the "loose swivel" connection of releasing hooks with the blocks of tackles by which the life-boat is raised and lowered by the davits. This arrangement is of great utility, as will be hereinafter set forth, and greatly cheapens the construction by this method of attaching it to the blocks in their connection with the releasing hooks; since it allows hooks and blocks being readily combined together, without the necessity of always having the hooks and blocks combined together and carried in stock. This arrangement, in fact, permits of any suitable block being readily combined with a hook, with but little skill, and by even unskilled labor, so that it will be easy to always combine the hooks with the blocks, thereby materially reducing the cost, and also greatly facilitating the application of the hooks to the blocks, which is a great saving of time.

Other advantages of the invention will be manifest from the description hereinafter given.

Referring to the drawings which accompany the specification to aid the description, Figure 1 is a broken longitudinal elevation of a life-boat equipped with one form of the invention and suspended by means of the Raymond automatic releasing hooks from the davits; Fig. 2 is a broken side elevation, on large scale, illustrating the invention with a stiff swivel arrangement of the releasing hook, and Fig. 3 is a broken front elevation of the same parts and on the same scale, but showing the engagement of the keel and the suspending rod in section, and also indicating a part of the hull of the life-boat. Fig. 4 is a broken side elevation on large scale of the invention with a "loose swivel" arrangement of the releasing hook, and Fig. 5 is a front broken section and elevation of the same parts that are shown in Fig. 4.

The life-boat A (Fig. 1) is supended, fore and aft, from the releasing hooks *p*—*q* by shackles *m*, which must be very securely fastened to the life-boats near their ends; and I have found, as hereinbefore stated, that the only way of so securing said shackles to metal life-boats is to suspend said shackles from the keel B. Such sus-

pension of the shackle from the keel is accomplished by the following construction:—

Said shackles *m* are preferably pivoted on the upper ends of suspension rods *j*, said rods being preferably forged in single integral pieces for strength and with ends *l*, and the pivotal connection between said shackle *m* and the end of said suspension rod being similar to that of a hinge, with a hinge pin *n* passing through the hinge knuckles; such connection of said shackle with said suspension rod providing for the proper movement of the shackle on the suspension rod without undue wabbling.

Next provision has to be made for the secure connection of the lower ends of the said suspension rod *j* with the said keel B, and this is effected in the following manner:—

Said suspension rods *j* are provided at their lower ends with yokes or clevises *g*, which fit on the lower end *l* of said rods *j*. Said yokes or clevises *g* are securely bolted to said keel B by transverse bolts *f*; and in order to provide sufficient metal at the proper part of said keel B, to permit of making the bolt hole at the proper place, said keel is furnished, at the desired places with ears *b'*, which permit of having sufficient metal at the holes for the said bolts, without increasing the depth of the whole keel more than is sufficient for the proper strength of the boat; but of course the keel could be, if desired, made so deep that the use of the ears of lugs *b'* would not be necessary. While this invention is especially intended for boats with metal keels, it can be readily applied to boats with wooden keels by bolting plates of steel having ears for the bolt holes of said bolts *f*, on said wooden keel by bolts which run down through the keel and firmly and securely connect said steel plates with the keel. In said construction, it will be clearly understood, that the said clevises *g* will engage the said plates, and therefore, the suspension rods will equally in these wooden keel boats, and in the metal keel boats, support the boat from the keel.

When in position in the boat, said suspension rods will ordinarily pass at their upper parts through suitable holes in thwarts *k*, by which said rods will be preserved in proper upright position. Said shackles *m* will finally be hinged on the open ends of said suspension rods as hereinbefore described.

As will be well understood, said shackles *m* are engaged, when the boat is hanging from the davits C—C (Fig. 4), by automatic releasing hooks *p—q*, and my invention provides for either the "stiff swivel" connection of the shanks *p* of said hooks with the blocks *s*, (Figs. 2 and 3) or for the "loose swivel" connection of the shanks of said hooks with said blocks, as seen in Figs. 4 and 5. In the said "stiff swivel" connection of Fig. 1, the said shanks *p* are riveted to the strap *v* of said block as shown, said blocks swiveling but not oscillating or tumbling on said hooks.

But in other cases it is desirable that said blocks have considerable free oscillating as well as swiveling motion on the hooks, and I accomplish this by the construction and arrangement shown in Figs. 4 and 5, wherein the shank *p* of said automatic releasing hook is provided with ring *w*, and said ring *w* is suspended in the strap *v—x* of the said block *s*.

In said "loose swivel" connection, shown in said Figs. 4 and 5, the hooks *p—q* are equipped with said rings or eyes *w* which are kept in stock and are sold with the said hooks *p—q*. The tackle-blocks *s* are provided with straps *v—x*, projecting below the said blocks *s*, and forming eyes or sockets to be engaged by said rings *w* of the said hooks *p—q*. The pintles *u* of the sheaves *t—t* of said blocks *s* pass through holes in said straps *v—x*, and in this way said straps *v—x* are held in position, and so that said hooks *p—q* are supported by said blocks and their tackles. Said pintles *u* are held against lengthwise motion in position in the blocks *s* by small plates *y—y* inserted in said blocks and secured by tacks. Thus, when it is desired to connect the releasing hook with any one of such blocks, such cover plates *y—y* are easily pried off from the blocks *s*, said pintles *u* are driven out by a suitable tool, and said straps *v—x* are pulled out of said blocks *s*. Then the rings *w* are placed on said straps, and said straps are replaced in said block, the pintles *u* are again driven through said block and through said sheaves, and the cover plates *y—y* are again tacked on the blocks in their proper position to retain said pintles in place, and now the said releasing hooks will be connected with the new blocks and tackle. This change can be readily and cheaply made, and it enables the user of the releasing hooks to keep on hand a number of the blocks, and to connect them with the releasing hooks at very small trouble and expense.

In the case of the stiff swivels shown in Figs. 2 and 3, it will be seen that a similar construction may also be employed for readily connecting the said releasing hooks *p—q* with the blocks. This construction is so plain from Figs. 2 and 3, with reference to the description hereinbefore given of the loose swivel connection of Figs. 3 and 4, that no further description of it is required.

Now having described my improvements, I claim as my invention:

1. The combination with automatic releasing devices for raising and lowering a life-boat, of a life-boat having a metal keel, shackles adapted to engage said devices, suspension metal rods having a hinged engagement with said shackles at their upper

ends, clevises on the lower ends of said suspension rods, and means for engaging said clevices with said keel of said life-boat.

2. In life-boat davit apparatus, the combination of a metal life-boat having a metal keel, automatic releasing device for suspending and releasing said life boat, a suspending shackle and a suspension rod movably connected at the upper end with said shackle, and a clevis on the lower end of said suspension rod connected with said keel of said life-boat.

3. The combination with a life-boat having a metal keel, of davits for suspending said boats, automatic releasing hooks operatively connected with said davits, shackles adapted to engage said hooks, suspension rods movably connected with said shackles at their upper ends, and clevises on the lower ends of said ssupension rods connected with said keel.

4. In life-boat suspending apparatus, the combination with the suspending shackle, of the keel of a life-boat provided with enlarged portions positioned at points adapted to be engaged with clevises, and suspension rods of said clevises movably connected with said shackles at their upper ends.

5. In life-boat suspending apparatus, the combination of a life-boat having a metal keel, davits and blocks and falls for raising and lowering said life-boats, automatic releasing hooks, a loose swiveled connection of said hooks with said blocks, shackles engaging said hooks, metal suspension rods having a hinged connection at their upper ends with said shackles and clevises on the lower ends of said suspension rods connected with said keel.

Signed at New York city, in the county of New York and State of New York, this 14th day of May, A. D. 1918.

OWEN J. McGOWAN.