April 21, 1925.

1,534,049

S. E. ALLBIN

LIFEBOAT DAVIT

Filed Dec. 31, 1921

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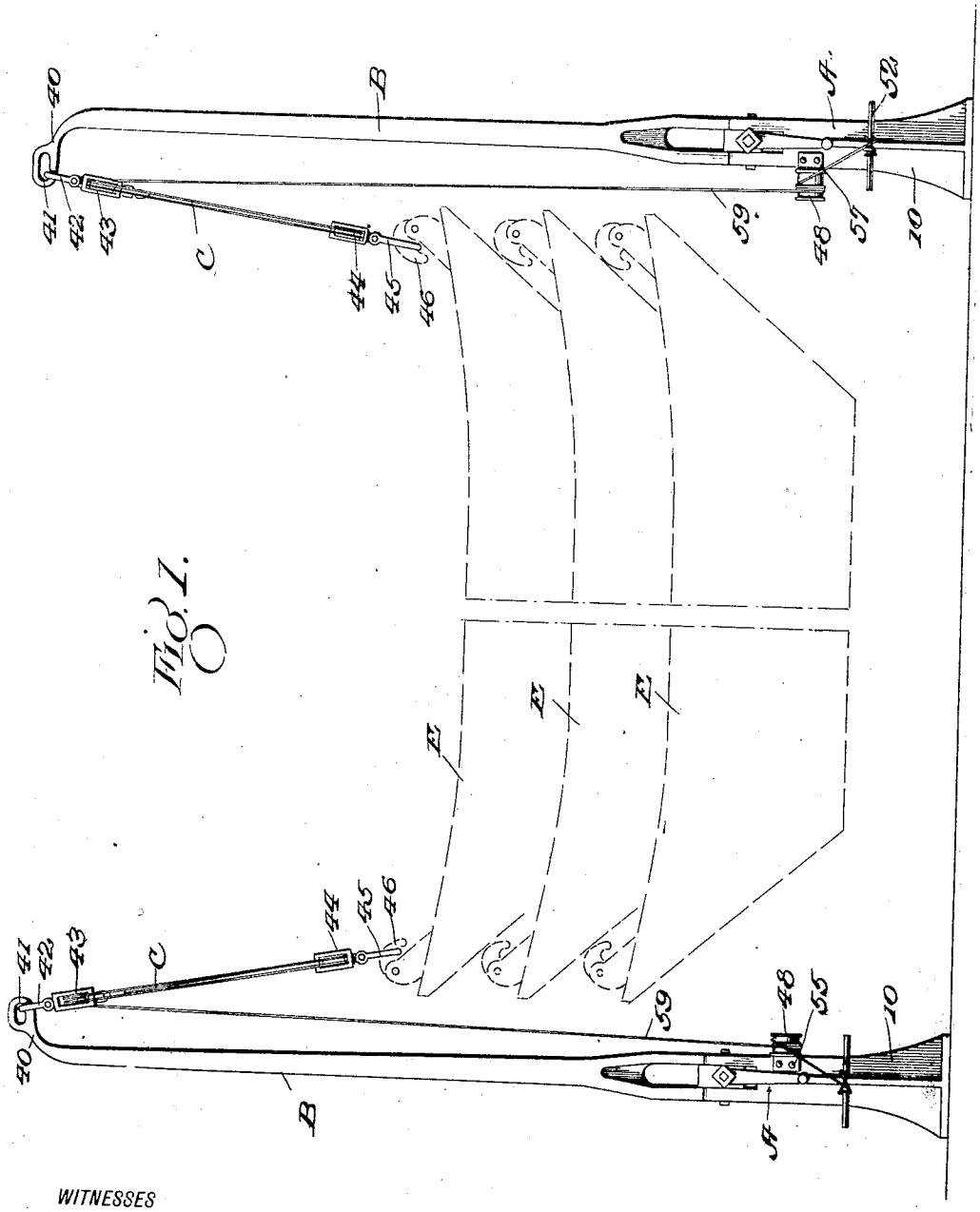


Fig. 7.

WITNESSES

INVENTOR

Sim Emil Allbin.

BY Munn & Co

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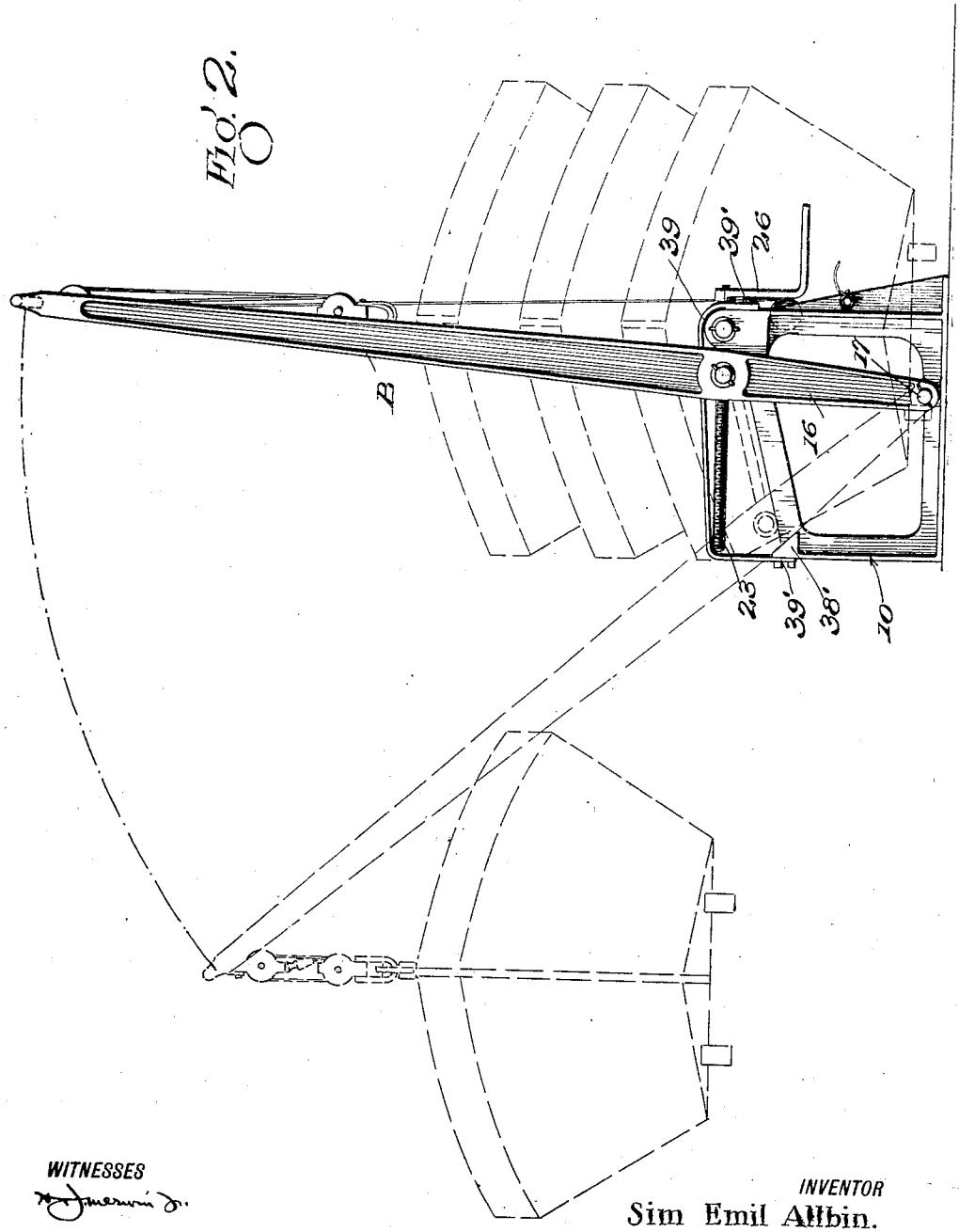
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Fig. 2.



WITNESSES

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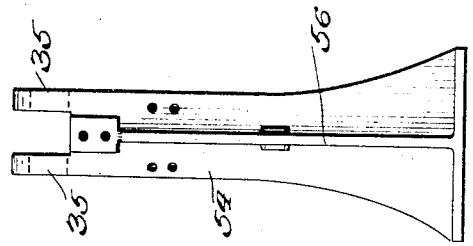


FIG. 6.

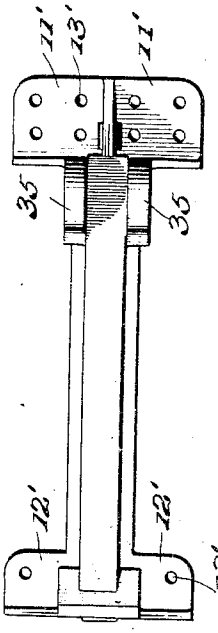


FIG. 5.

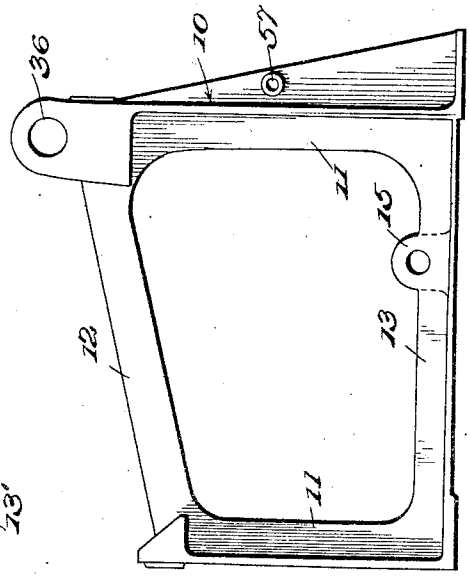


FIG. 4.

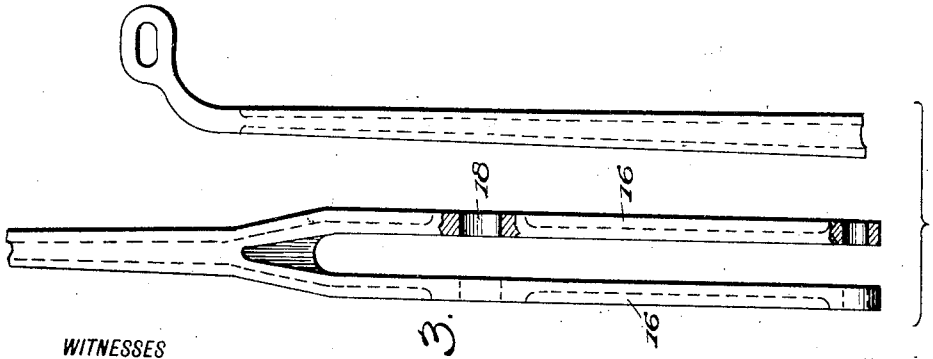


FIG. 3.

WITNESSES

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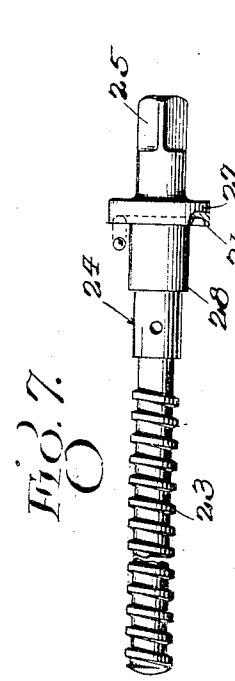


Fig. 7.

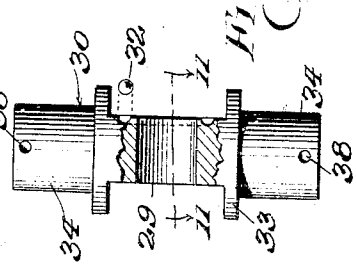


Fig. 10.



Fig. 13.

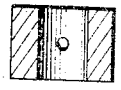


Fig. 12.

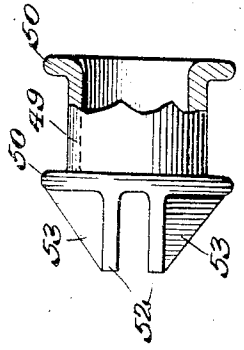


Fig. 14.

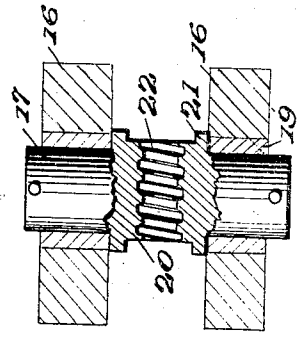


Fig. 8.

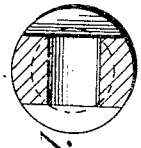


Fig. 11.

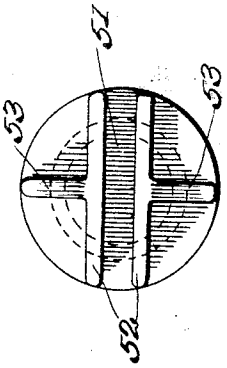


Fig. 15.

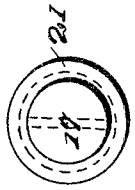


Fig. 9.

WITNESSES

INVENTOR

Sim Emil Allbin.

BY

ATTORNEYS

Patented Apr. 21, 1925. 1,534,049

UNITED STATES PATENT OFFICE.

SIM EMIL ALLBIN, OF SEATTLE, WASHINGTON, ASSIGNOR TO MAYER LIFE BOAT CO. INC., OF SEATTLE, WASHINGTON.

LIFEBOAT DAVIT.

Application filed December 31, 1921. Serial No. 526,146.

To all whom it may concern:

Be it known that I, SIM EMIL ALLBIN, a citizen of the United States, and a resident of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Lifeboat Davits, of which the following is a specification.

This invention relates to improvements in life boat davits.

The object of the invention is to provide davits by which a life boat may be swung and lowered from a vessel in an expeditious and reliable manner.

It is also an object of the invention that the davits may be supported or secured to the deck of a vessel in a substantial manner.

It is a further object of the invention that the davits be exceedingly simple in construction and parts thereof not subject to easy breakage.

Other objects and objects relating to details of construction, combination and arrangement of parts will hereinafter appear in the detailed description to follow.

The invention is illustrated by way of example in the accompanying drawings, in which:—

Figure 1 is a view in elevation illustrating a pair of davits when in proper position for lowering or raising life boats from a vessel,

Figure 2 is an end elevation of the same and showing in dotted lines the position of the booms of a davit when operated for swinging a life boat from the deck of a vessel,

Figure 3 is a grouped view showing the end sections of a boom,

Figure 4 is a side elevation of a boom support or standard,

Figure 5 is a top plan view of the same,

Figure 6 is an elevation of the same,

Figure 7 is a detailed perspective view of the actuating screw for lowering the davit booms,

Figure 8 is a sectional detail view showing the threaded hub through which the screw extends and in the manner in which the same is associated with a boom,

Figure 9 is an end elevation of the same,

Figure 10 is a detailed view of the hub shaft which pivotally and rotatably supports the one end of the actuating screw shown in Figure 7,

Figure 11 is a transverse sectional view taken substantially on the line 11—11 of Figure 10,

Figure 12 is a longitudinal sectional view of a collar associated with the actuating screw shown in Figure 7,

Figure 13 is a similar view of a collar carried by each of the ends of the hub shaft shown in Figure 10, and

Figures 14 and 15 are a side elevation and end elevation respectively of a gypsy associated with the booms.

Referring to the drawings more particularly, A indicates generally a davit, one being positioned at each end of the plurality of boats E, and each davit including a boom B which supports at its uper end a block and fall C. More particularly each davit A comprises a supporting frame or base generally indicated by the reference numeral 10, as shown in detail in Figure 4, and consisting in a casting, the vertical portions 11 of which are substantially parallel and the upper portion 12 inclined with respect to the base portion 13. The frame is formed with suitable rear and forward base plates 11′ and 12′ respectively, each of which are provided with openings as at 13′ through which screw bolts may be extended for securing the frame to the deck of a vessel. The base portion 13 is formed with a bearing lug 15 through which the extremities of the furcations 16 of the boom B are pivotally connected by the means of a pin 17. The furcations 16 of the boom B straddle the upper portion 12 of the frame 10 and near their upper ends have journaled therebetween the stub shaft 17, Figure 8, said stub shaft extending through suitable openings 18 formed in the furcations 16, and said openings being preferably lined as indicated at 19.

The stub shaft 17 has its intermediate portion formed with an enlargement 20 which terminates at each end in a flange 21 adapted to abut the bearing linings 19. Also this enlarged portion 20 is formed with a central transverse opening 22 which is screw threaded, as shown, and adapted for operatively receiving the screw portion 23 of the operating screw generally indicated by the reference numeral 24. The operating screw 24 has its rear end terminating in a squared portion 25 adapted to receive the crank 26 and forward to this is formed with a collar 27. Forward to

collar 27 the operating screw is formed with an enlargement 28 which is adapted to fit within the central opening 29 of the hub shaft generally indicated by the reference numeral 30. The collar 27 and the hub shaft 30 have complemental grooves or raceways 31 for receiving the ball bearings indicated at 32. Also upon each side of the opening 29 of the hub shaft 30 there is formed a collar 33, and the ends 34 of the hub shaft 30 are journaled in the projections 35 of the stand 10, said projections being each formed with suitable and aligned openings for journaling said ends of the hub shaft as indicated at 36. A collar such as shown in detail in Figure 13 indicated by the reference numeral 37 is positioned upon each outer end 34 of the hub shaft 30 and so held by the means of an insertion of a pin in the openings 38. As is obvious from this construction the screw 24 may freely rotate and also free to swing in a vertical plane upon the hub shaft 30. The screw 24 is protected by the means of a plate covering 39, said plate covering having its ends secured as at 39′ to the frame 10. Also the forward leg 11 of the frame 10 is formed with a lug 38′ which has an inner inclined surface as shown in Figure 2, and is adapted to seat the boom B when lowered to its dotted line position as likewise shown in Figure 2.

The upper end of each boom B is turned inwardly as at 40 and terminates in an eye 41 with which the clevis 42 of the upper sheeve 43 of each block and fall may be connected. The lower sheeve 44 of each block and fall also carries the usual clevis as at 45 which is connected with a hook 46 carried at each end of the boats E.

To each frame 10 there is secured a gypsy 48 which is shown in detail in Figures 14 and 15 and comprises a hollow cylindrical portion 49 having formed upon each end a flange 50 and its end closed as at 51, and said closed end formed with a pair of wings 52 which extend at right angles thereto and are suitably braced by the plates 53. The wings 52 are sufficiently spaced so that the same may receive a vertical rib 54 of the stand 10 and so secured by the means of bolts indicated at 55, Figure 1. Also a vertical rib 56 of the rear leg 11 of the stand 10 is formed with an eye or opening 57 through which there is extended a bar 58, Figures 1 and 4. The free end 59 of the rope or cable forming each block and fall C may be held by winding the same about its associated gypsy 48 a few turns and further securing the same to the bar 58, as shown in Figure 1.

In the operation of the present apparatus when it is desired to lower a boat the block and falls are first operated for raising the uppermost boat with which they are connected, so that the same will clear the boat therebeneath and then the crank 26 operated for moving the booms B outwardly until they assume the dotted line position shown in Figure 2. At this time each boom will rest upon its seat 38′ and will so hold and support the boat in a rigid and positive manner. The block and fall C may now be further operated for lowering the boat into the water. When it is desired to raise the boat then the block and falls are again operated to raise the boat from the water to the position shown in dotted lines in Figure 2, and the crank 26 is then turned for raising the booms B to their original position. During this operation the free ends 59 of the ropes forming the block and falls are of course made secure by the means of the gypsies 48 and the bars 58. It is of course to be observed that the gypsies 48 are utilized in the usual manner for letting out the block and falls and taking the same up during the lowering and raising of the boat suspended thereby.

While I have shown and described the preferred form of my invention I wish it to be understood that I am aware of the fact that the construction, combination and arrangement of parts may be changed by those skilled in the art without departing from the spirit of the invention, as indicated by the appended claims.

I claim:

1. In a device of the character described, a boom having its one end provided with a pair of elongated prongs, a support, a pivotal connection between said support and the free ends of said prongs adapted to permit vertical swinging movement of said boom, a stub shaft rotatably supported between said prongs adjacent the inner ends thereof, a worm shaft, said stub shaft carrying a nut, the stub shaft having a threaded passage to receive the worm shaft and being flattened on opposite sides at right angles to the axis of the worm shaft and having cylindrical ends of a larger cross section than the central portion thereof whereby said stub shaft may be placed in position from either side of the boom.

2. In a device of the character described, a supporting frame substantially square in formation, a boom terminating at its one end in a pair of elongated prongs, said prongs straddling the upper end portion of said frame, a pivot connection between the lower end portion of said frame and the free ends of said prongs, a nut rotatably supported between said prongs adjacent the inner ends thereof, a screw supported by said frame at a point above the pivotal support of said boom, said nut being adapted to receive said screw and thereby permit swinging movement of the boom in either

direction with the corresponding operation of said screw, a stub shaft, the upper surface of the frame being inclined and adapted to receive the rotating stub shaft supporting the screw, a rest provided at the lower end of the frame for the boom, the incline of the upper surface of the frame being such as to permit swinging of the screw.

3. In a device of the character described, a frame substantially square in formation and having an inclined upper side, a boom terminating at its one end in a pair of elongated prongs, said prongs straddling the upper portion of said frame, a pivot connection between the lower portion of the frame and the free ends of said prongs whereby to permit the boom to swing in a vertical plane, a screw rotatably supported at the uppermost end of the top portion of the frame, said screw being adapted to swing in a plane corresponding to the boom, and a rod rotatably supported between the prongs of the boom adjacent the inner ends thereof adapted to receive said screw, a stub shaft, the upper surface of the frame being inclined and adapted to receive the rotating stub shaft supporting the screw, the lower end of the frame being provided with a recess for said boom, the incline of the upper surface being such as to permit swinging of the screw.

4. In a device of the character described, a frame substantially square in formation and having an inclined upper side, a boom terminating at its one end in a pair of elongated prongs, said prongs straddling the upper portion of said frame, a pivot connection between the lower portion of the frame and the free ends of said prongs whereby to permit the boom to swing in a vertical plane, a screw rotatably supported at the uppermost end of the top portion of the frame, said screw being adapted to swing in a plane corresponding to the boom, a rod rotatably supported between the prongs of the boom adjacent the inner ends thereof, and a wrist positioned at the lowermost end of the upper portion of said frame whereby said boom may be supported when swung to engage said wrist, the upper surface of the frame being inclined and adapted to receive the rotating stub shaft, the incline of the upper surface of the frame being such as to permit swinging of the screw.

SIM EMIL ALLBIN.