A. B. MULLETT & G. W. BAIRD.

MEANS OF OPERATING SHIPS' DAVITS.

No. 195,225. Patented Sept. 18, 1877.

Fig. 2.

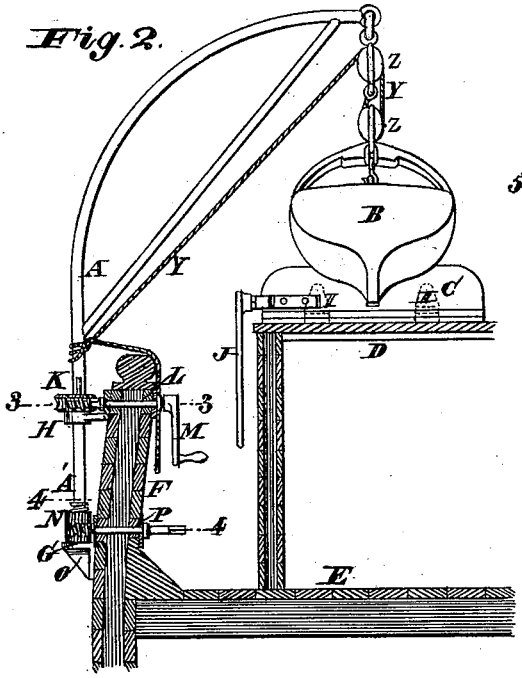


Fig. 3.

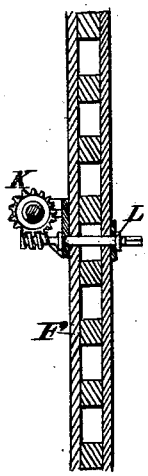


Fig. 4.

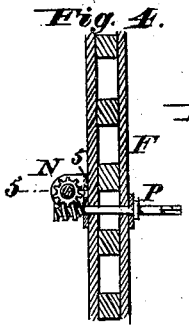


Fig. 5.

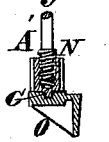


Fig. 6.

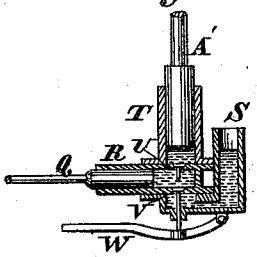
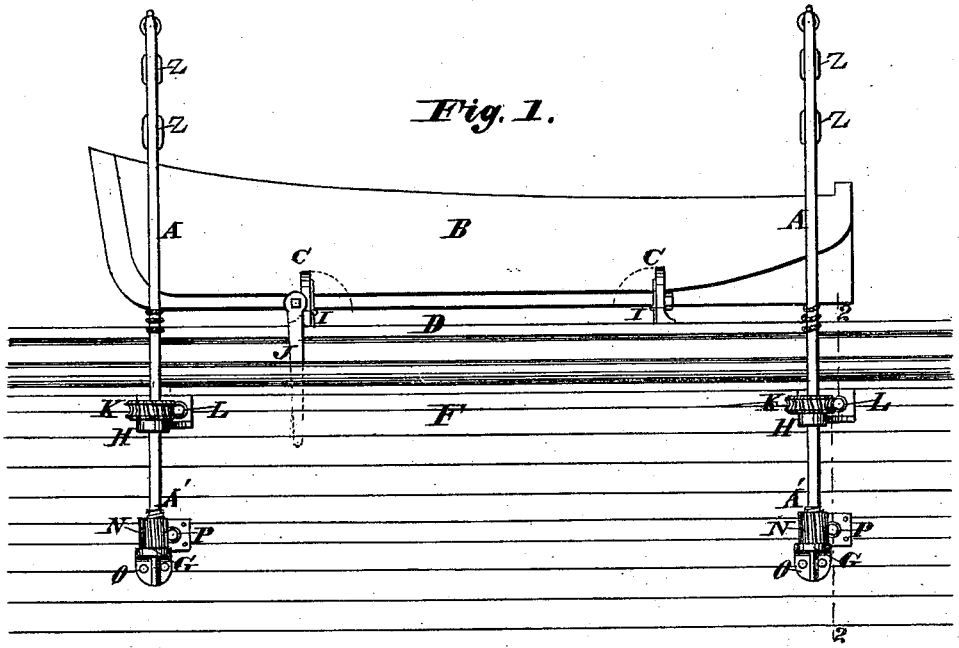


Fig. 1.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALFRED B. MULLETT AND GEORGE W. BAIRD, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS TO SAID MULLETT.

IMPROVEMENT IN MEANS FOR OPERATING SHIPS' DAVITS.

Specification forming part of Letters Patent No. **195,225**, dated September 18, 1877; application filed January 29, 1877.

To all whom it may concern:

Be it known that we, ALFRED B. MULLETT and GEORGE W. BAIRD, of Washington, in the District of Columbia, have invented a certain new and useful Improvement in Operating Ships' Davits, of which the following is a specification:

The object of our invention is to provide ready means for freeing a ship's boat from the deck and passing it over the side while suspended on the davits. To this end our invention consists, first, in a suitable appliance for elevating the davits bodily, so that the boat may be raised out of the cradle or chocks on which it rests, or as an equivalent thereof, an improved construction of chocks or cradle to admit of readily withdrawing the same from the bottom of the boat; secondly, in a device for turning the davits by mechanical power to pass the boat overboard; thirdly, in the combination of a device for freeing the boat and means of turning the davits, as aforesaid, to pass the boat overboard.

In the accompanying drawings, Figure 1 is an elevation illustrating a boat resting on removable chocks or cradle, and a davit with a mechanical appliance for imparting rotation thereto with any necessary force. Fig. 2 is a vertical section on the line 2 2, Fig. 1. Fig. 3 is a horizontal section on the line 3 3, Fig. 2. Fig. 4 is a horizontal section at 4 4, Fig. 2, of a device for raising the davit to lift the boat out of the cradle or chocks. Fig. 5 is a vertical section of the same. Fig. 6 is a vertical section of another device for elevating the davits.

A A represent a pair of davits, and B a ship's boat, which is suspended therefrom by ropes Y and blocks Z in any ordinary or suitable manner. C C are the chocks forming a cradle in which the boat rests on the deck-house D, E being the deck of the vessel, and F the bulwark, on the outside of which the davits A are supported by step G and bearings H. The chocks C are attached by means of hinges I, admitting of their being turned down in horizontal position by means of a lever, J, so as to free the boat when it is to be passed overboard.

Above the upper bearing H a worm-gear, K, is keyed to each davit A. With this gear a screw-shaft, L, meshes, as shown in Fig. 3. A crank, M, is applied to the inner end of the shaft L for turning the same, so that the davit may be turned with any necessary force. It will be understood that the boat may be released from the chocks or cradle in any preferred manner. The weight of a man on either rope Y will raise that end of the boat while the chock C is turned down.

As a modification of the mode of releasing the boat from its chocks or cradle we have shown in Figs. 4, 5, and 6, under two modifications, devices for elevating the davits to any necessary extent in order to lift the boat out of the chocks or cradle.

In the modifications shown in Figs. 4 and 5 the foot of the davit A′ is constructed with a screw-thread fitting within a nut, N, which rests in a suitable bracket, O. The nut N receives a forcible rotary movement by means of the worm-shaft P, gearing with teeth *n* on the periphery of the nut. In this case the shaft of the davit will run through the worm-gear K by means of a spline or feather, so as to permit longitudinal movement between them while preventing the turning of one without the other. The same crank-shafts L are then used to turn the davits.

In the modification shown in Fig. 6 the pump-piston Q, working in a cylinder, R, taking water from a reservoir, S, and forcing it into a cylinder, T, is employed to raise the davit with any necessary force. U V are check-valves preventing the return of water from the cylinders T and R, respectively. W is a lever engaging with the rod *w* of the valve U, and adapted to raise both valves simultaneously, so as to permit the return of the water to the reservoir S when the davit is to be lowered.

The boat having been freed from its cradle or chocks by either of the described or any other suitable means, one of the davits is turned, as described, in the right direction, causing one end of the boat to pass overboard, and the rotation of the davit draws the other end of the boat clear with the same move-

ment that is imparted to the boat in passing it over the side by hand, but with very great ease and facility.

By means of this invention the number of hands and the amount of time required by unshipping and passing a boat over the side are greatly reduced.

For the purpose of illustration, the davits are shown on the outside of the ship's bulwark; but it is evident that they may be applied on the inside and operated by the same means. The davits may be elevated by steam-pressure instead of by hydraulic-pressure, as illustrated in Fig. 6.

The invention, in any of its various forms, may readily be adapted and applied to davits already in use.

It may be observed that this invention has no necessary connection with any of the various forms of boat-detaching apparatus, but may be used with any of them.

Having thus described our invention, the following is what we claim as new and desire to secure by Letters Patent—

1. The combination, with the davit A, of gearing K L M, for imparting rotation to the same, substantially as and for the purposes set forth.

2. The combination, with the davit A, of the gearing N P, for elevating the same in the manner described.

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Witnesses:
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