No. 720,274. PATENTED FEB. 10, 1903.

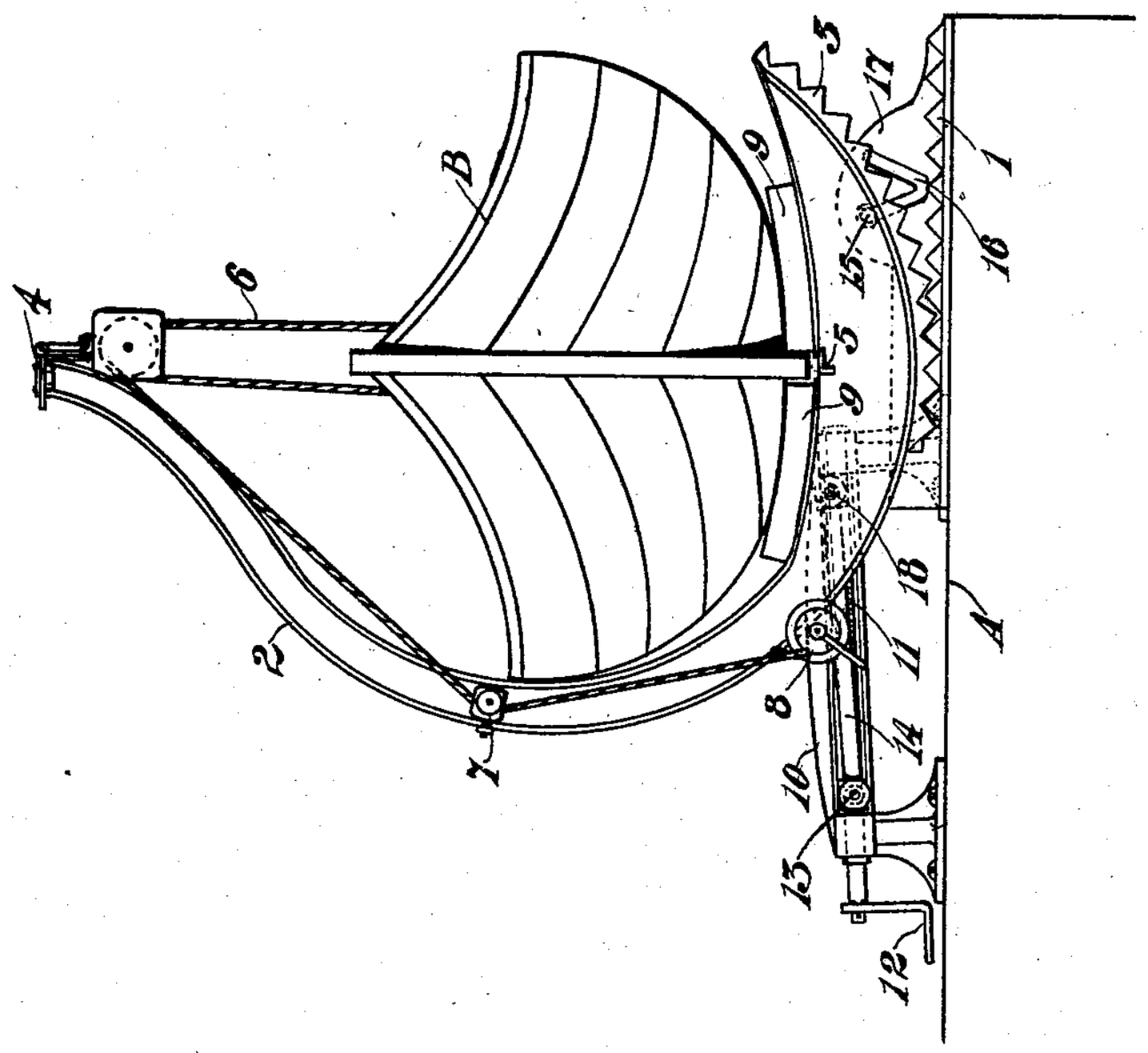
N. MURCHISON.

BOAT DAVIT FOR SHIPS.

APPLICATION FILED APR. 19, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES:

E. Mitchell

M. A. Bonnett

INVENTOR

Neil Murchison

BY

Henry Bonnett

ATTORNEY

No. 720,274. PATENTED FEB. 10, 1903.

N. MURCHISON.

BOAT DAVIT FOR SHIPS.

APPLICATION FILED APR. 19, 1902.

NO MODEL. 3 SHEETS—SHEET 2.

Fig. 2.

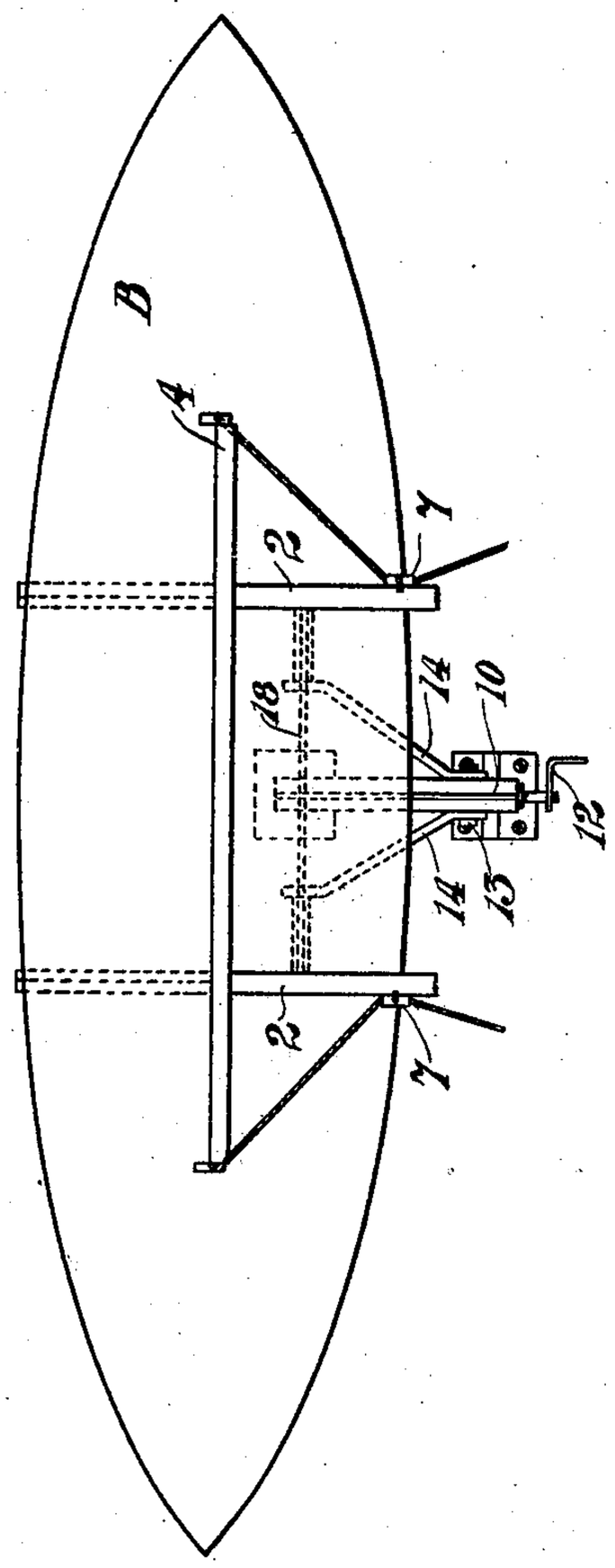


Fig. 5.

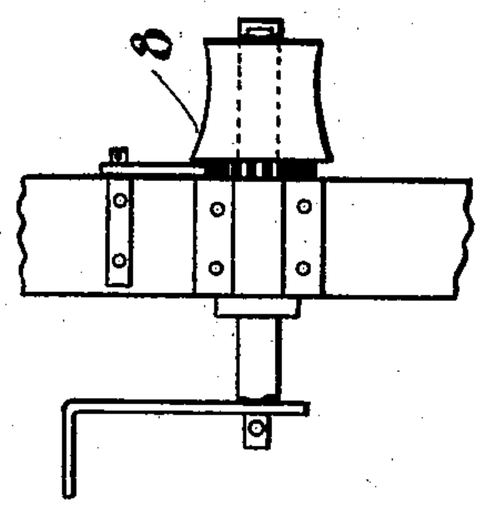
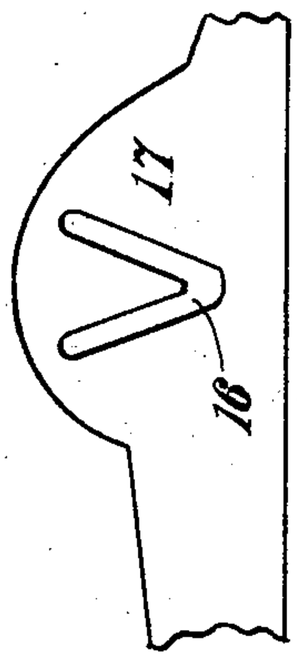


Fig. 4.



WITNESSES:

E. Mitchell

M. A. Leonard

INVENTOR

Neil Murchison

BY Munn & Co.

ATTORNEY

No. 720,274. PATENTED FEB. 10, 1903.

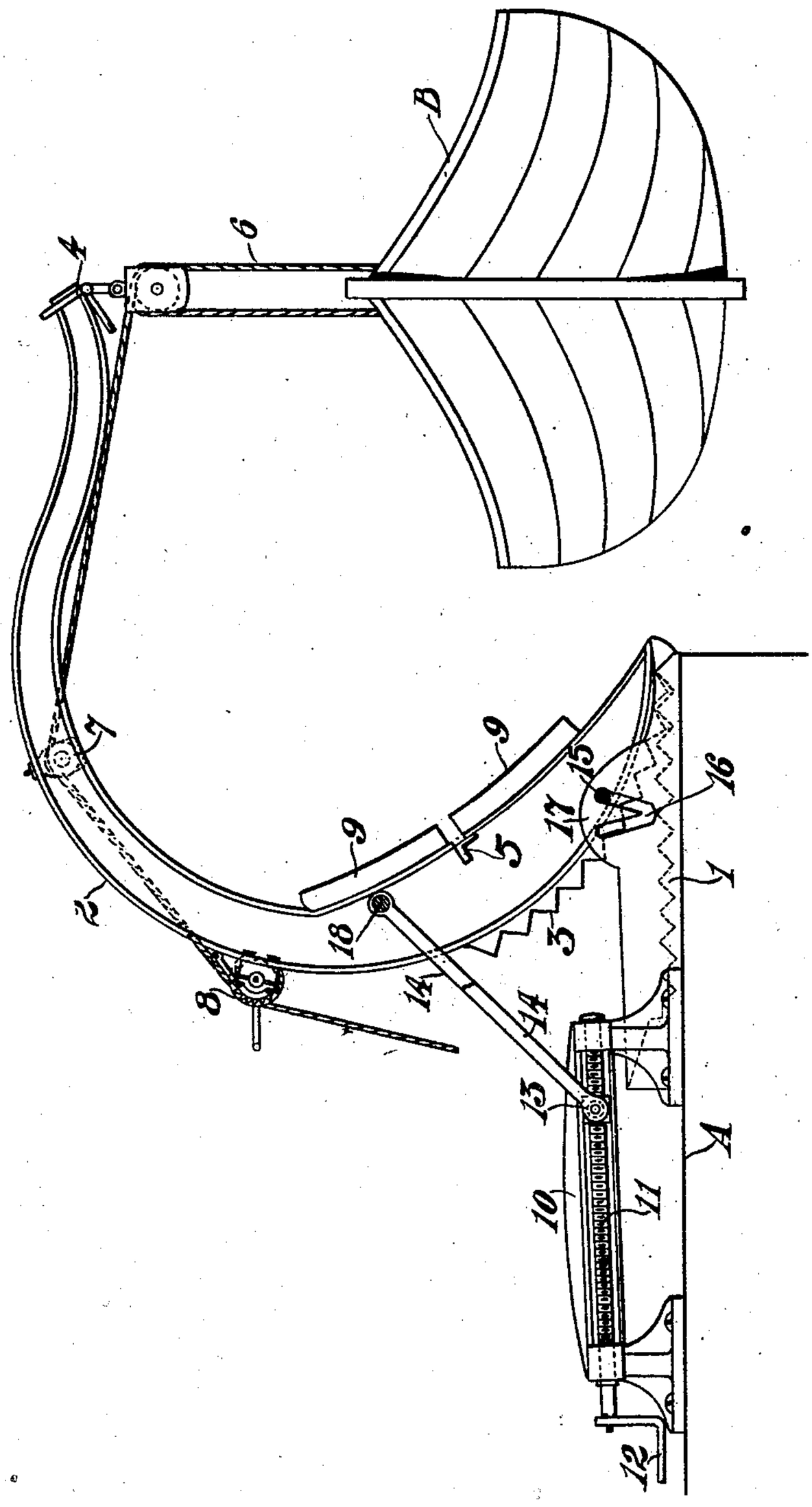
N. MURCHISON.

BOAT DAVIT FOR SHIPS.

APPLICATION FILED APR. 19, 1902.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 3.



WITNESSES:

E. Mitchell.

H. G. Cornell

INVENTOR

Neil Murchison

BY Henry Connett

ATTORNEY

UNITED STATES PATENT OFFICE.

NEIL MURCHISON, OF NEW YORK, N. Y.

BOAT-DAVIT FOR SHIPS.

SPECIFICATION forming part of Letters Patent No. 720,274, dated February 10, 1903.

Application filed April 19, 1902. Serial No. 103,678. (No model.)

To all whom it may concern:

Be it known that I, NEIL MURCHISON, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, and city and State of New York, have invented certain new and useful Improvements in Boat-Davits for Ships, of which the following is a specification.

This invention relates in general to means for lowering, raising, and housing ships' boats; and the object is to provide a vessel with rocking boat-davits connected together and provided with means of operating them conveniently, whereby the boat may be lifted from its chocks, swung outward clear of the side of the vessel, and then lowered to the water.

The invention resides in the peculiar construction of the connected rocking davits, the means for operating them, and the stop device which limits the rocking movement in both directions.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is an end view showing the boat resting in its chocks. Fig. 2 is a plan, on a reduced scale, of the same. Fig. 3 is a transverse vertical section taken between the connected davits and showing the boat swung out and suspended. Fig. 4 is a detail view of the limiting-stop, and Fig. 5 is a detail view of the windlass.

A designates the deck of the vessel on which the davits are mounted, and B is the boat. On the deck of the vessel are secured two serrated or toothed tracks or ways 1, and on these are mounted the two connected davits 2 2. These davits are alike, and each has the curved form clearly shown in the drawings—that is to say, the davit has a rounded or circularly-convex base provided with teeth 3 to mesh with the teeth on the fixed track 1. The davits extend upward and outward from the rounded base, and the two davits are rigidly tied together by a top plate or beam 4 and a keel plate or beam 5. There are or may be other ties connecting together the two davits.

The boat B is suspended by tackles 6 from the top plate or beam, and the falls are led through suitable guide-sheaves 7 to ratchet-windlasses 8 on the respective davits.

To put out the boat, the latter is hoisted to free it from its chocks 9. The davits are then rocked outward on the tracks 1, as seen in Fig. 2, until the boat swings free and can be lowered by the tackles.

In order to rock the davits, the screw mechanism illustrated is employed. This consists of a strong frame 10, secured to the deck of the vessel, a screw 11, having collared bearings in the said frame and extending transversely of the vessel or parallel with the tracks 1, a crank 12 for rotating said screw, a traveling nut 13 on said screw and guided in said frame 10, and links 14, coupling said nut with the respective davits 2.

Fig. 1 shows the position of the parts when the boat is housed and resting on the chocks, and Fig. 3 shows their position when the boat is swung out over the side.

In order to limit and stop the movement of the rocking davits in both directions, the latter have each a laterally-projecting stud 15, which engages and plays in a suitably-shaped slot 16 in the elevated side guard 17 on the track 1. This slot 16 as herein shown has substantially a V shape; but obviously its form will vary somewhat with its position.

The teeth on the track 1 and the convex base of the davit are herein shown as of angular or V form; but this is not essential. They may have any convenient or suitable form, so long as they properly fulfil the requirement, which is to compel the davit to roll properly on the track without slipping.

Conveniently the sheaves or blocks 7 are swiveled to the davits, so as to adapt themselves to the fall of the tackle which leads to the windlass, and the studs 15 are rollers mounted on a rod extending across between the davits and tying them together.

The screw 11 is shown as slightly inclined to the horizontal, being highest at the end next the davits; but the particular arrangement of the screw in this respect is not essential to the invention. Fig. 2 shows the frame 10 and screw 11 situated about midway between the two davits, the links 14 being bent outward, so as to couple to a tie-rod 18 near the respective davits.

Obviously the invention is not restricted to the particular construction herein illustrated, as this may be varied in some respects without departing materially from the invention.

The construction described provides a simple, efficient, and easily-operated device and one capable of being operated in rough weather or when the ship is heeled to starboard or port.

It will be noted that when the boat is seated on its chocks, as in Fig. 1, a vertical plane passing through the point of suspension will pass through the center of the boat and the center of the rounded base of the davit where it rests on the track 1. This disposition imparts stability. The center of the curve of the rounded base of the davit is at about the center of the end of the boat. (Seen in Fig. 1.)

Having thus described my invention, I claim—

1. A device for the purpose specified, comprising the toothed tracks, the connected davits having convex, toothed bases mounted on the said tracks, the top beam of the davits, the chocks mounted on the convex bases of the davits, tackles for suspending the boat from the top beam, and means for rocking the davits and the chocks on the tracks.

2. A device for the purpose specified, comprising the tracks, the connected davits, curved to overhang the boat and having convex bases which rest on the respective tracks, means which prevent the said bases from slipping on the tracks, the top beam of the davits, the chocks mounted on the convex bases of the davits down near the tracks, the suspending-tackles, and means for operating the davits simultaneously.

3. In a device for the purpose specified, the combination with the tracks, having teeth and side guards, of the connected davits having rounded bases and teeth to gear with the teeth on the tracks, a screw and intermediate devices for rocking the davits, and limiting-stops comprising studs carried by the davits and engaging suitably-shaped slots in the side guards of the tracks.

4. In a device for the purpose specified, the combination with the track having a side guard 17, provided with a substantially V-shaped slot 16 therein, of the davit having a rounded, convex base to rock or roll on said track, and a stud 15 in said davit and engaging said slot.

In witness whereof I have hereunto signed my name, this 14th day of April, 1902, in the presence of two subscribing witnesses.

NEIL MURCHISON.

Witnesses:
HENRY CONNETT,
PETER A. ROSS.