

No. 812,069.

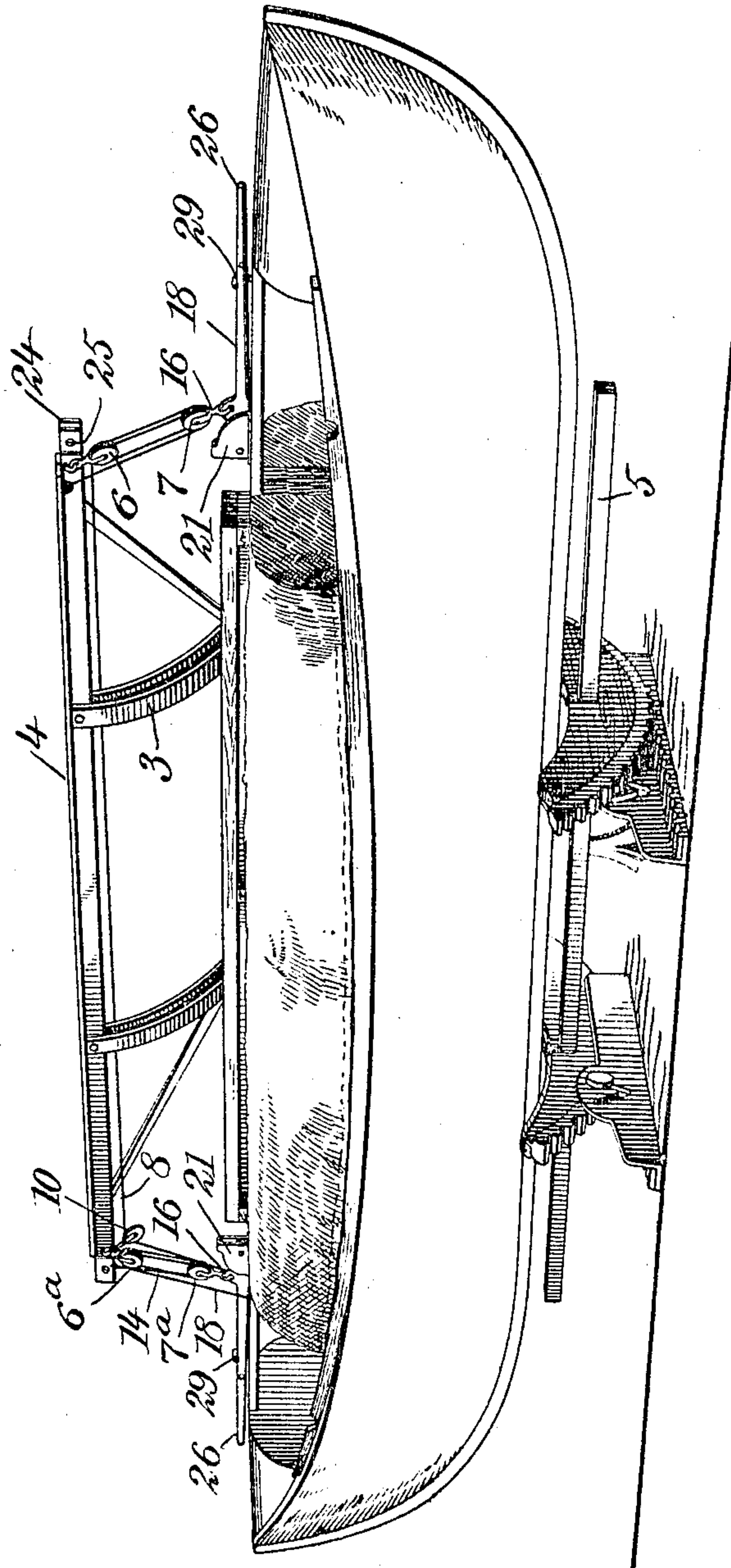
PATENTED FEB. 6, 1906:

N. MURCHISON.
ATTACHMENT FOR BOAT DAVITS.

APPLICATION FILED FEB. 1, 1905.

2 SHEETS—SHEET 1.

FIG. 1.



WITNESSES:

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2 SHEETS—SHEET 2.

Fig. 2.

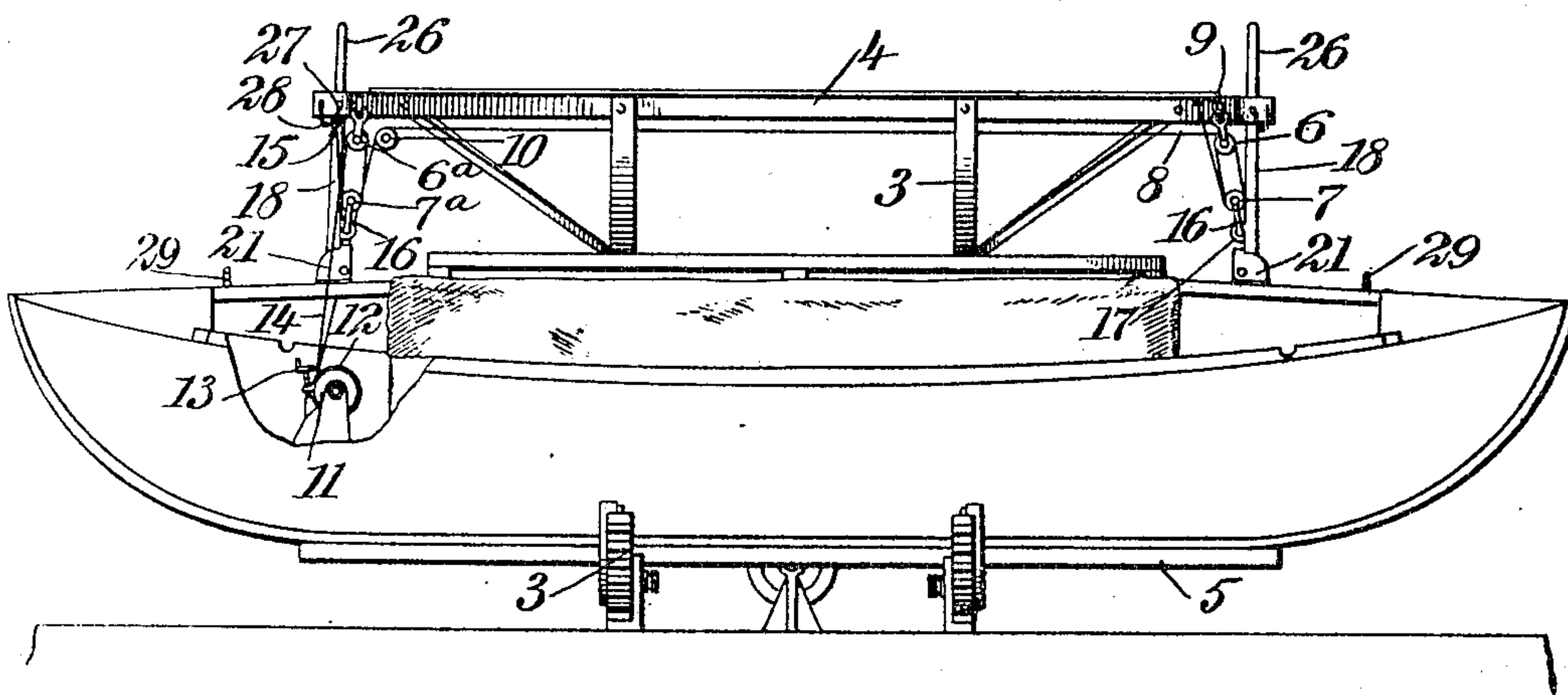
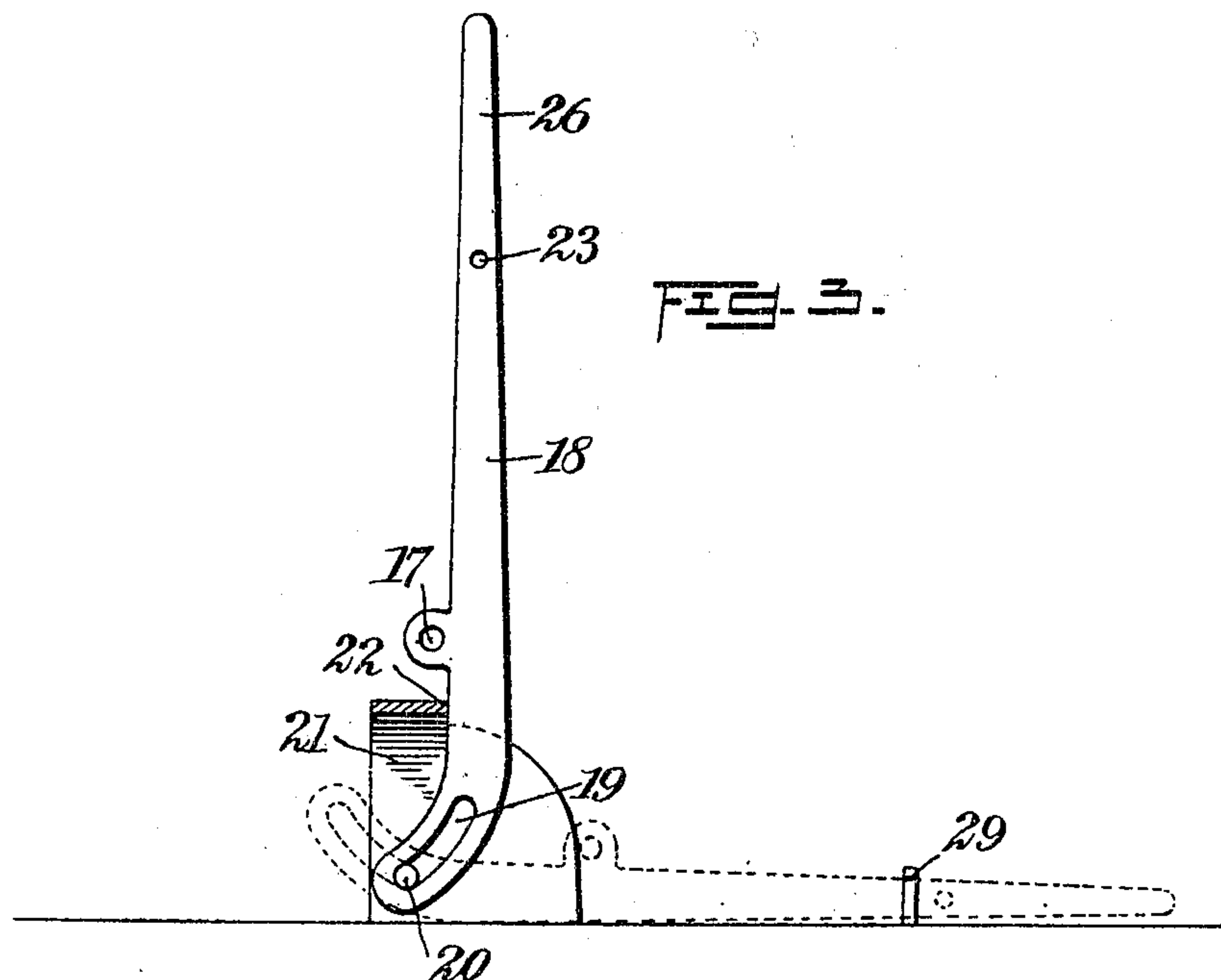


FIG. 3.



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UNITED STATES PATENT OFFICE.

NEIL MURCHISON, OF NEW YORK, N. Y.

ATTACHMENT FOR BOAT-DAVITS.

No. 812,069.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed February 1, 1905. Serial No. 243,654.

To all whom it may concern:

Be it known that I, NEIL MURCHISON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Attachment for Boat-Davits, of which the following is a full, clear, and exact description.

My invention relates to boat-davits, and is especially concerned with means for raising boats from the chocks and depositing them in the water and for performing a reversal of this operation.

While the present invention is designed as an improvement on or attachment for a form of boat-davit patented by me on February 10, 1903, numbered 720,274, yet it is capable of use with many other forms of davits and is not limited to any particular kind thereof.

Heretofore a fall-and-tackle arrangement has been provided for lifting boats in their davits; but this has the disadvantage that it is difficult to lift the boat free from the chocks with it and the same operator has to continue lifting the boat from the chocks to the final position. It also does not provide for steadying the boat.

The principal objects of my invention are to provide means for lifting both ends of the boat by a very efficient hand-operated device and freeing the boat from the chocks, to deposit both ends simultaneously and at the same speed in the water, and to provide for steadying the boat in the chocks without employing any additional mechanism for that purpose.

Further objects of the invention will appear in the course of the subjoined description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view showing a preferred form of my invention applied to the form of davits shown in my aforesaid prior patent. Fig. 2 is an elevation thereof with a portion broken away to show the interior construction; and Fig. 3 is a sectional view, on an enlarged scale, showing the initial lifting device.

For convenience I have shown my present invention as applied to the form of davits shown in the above-mentioned patent, and reference is to be had to that patent for a de-

scription of those elements which are illustrated herein, but not specifically described.

The davits 3 may of course be operated in any desired manner and are preferably connected at a point near their upper ends by a top plate or beam 4 and in their lower portions by a keel-plate or beam 5. The boat normally rests on the chocks and on the keel-plate. In order to lower the boat into the water, it is raised from this position, and when clear of the chocks the davits are swung outwardly in the manner described in my prior patent or in any other desired manner.

I provide means for supporting the boat from the top plate 4 at both ends of the boat. This means is represented in the drawings by falls and tackle comprising a pair of standing blocks 6 and 6^a, each being accompanied by running-block 7 and 7^a. A fall 8, having its standing-point at 9 near one end of the top plate, engages with the blocks 6 and 7 and passes from that tackle to a loose pulley 10 near the other end of the plate. From this pulley the fall passes around a windlass 11. This windlass is provided with a brake 12 and operating-screw 13 therefor. A second fall 14 has a standing-point 15 near the opposite end of the top plate and after passing around the blocks 6^a and 7^a is led to the windlass in the same manner as the fall 8. It will be understood that upon operating the windlass 11 both falls will be wound up upon it and both ends of the boat will be lifted evenly and simultaneously. This is an important feature of my invention and one which has many advantages.

Means for suspending the boat from the running-blocks will now be described. Each of the running-blocks is provided with a hook 16 or equivalent device, and these hooks are adapted to engage in eyes 17 in levers 18. Each of these levers is therefore fulcrumed at the point 17 with respect to the tackle. Each of the levers is also provided with a curved slot 19, through which a pin 20 passes. This pin is mounted in a projection or frame 21, attached to the boat, the two frames 21 being attached near opposite ends of the boat. A shoulder 22 on each of the frames constitutes a stop for the lever. Each lever is also provided with a perforation 23 for a purpose to be described. The top plate 4 is provided with a slot 24 at each end and with a perforation 25. The levers are so located that they can be raised to a vertical position against the shoulders 22, and at that time their han-

dles 26 will pass into the slots 24, the perforations 23 and 25 registering with each other. A pin 27 is connected by a chain 28 with each end of the top piece and is adapted to pass
 5 through these perforations, so as to hold the levers in a vertical position. It will be seen that by this construction the levers are secured to the top plate and that they secure the boat in the chocks, thereby doing away
 10 with the four grips used at present.

The position shown in Fig. 2 is that in which the boat rests upon the keel-plate and chocks. When it is desired to raise the boat, the pins 27 are first released and then an operator at each end of the boat seizes a handle 26 and forces it down on the fulcrum 17 of the lever. This fulcrum being stationary as far as vertical movement is concerned, the effect of the operation will be to raise the two
 20 ends of the boat on the short arms of the levers and clear the bottom of the boat from the keel-plate and chocks. When this operation is performed, the two levers are secured in horizontal position by passing them under
 25 hooks 29. The boat then being free from the chocks, if the form of davits shown in the accompanying drawings is employed they can be rocked over, so as to permit the boat to be swung over the side and lowered into the
 30 water by releasing the brake 12 and controlling it by means of the screw 13.

It will be readily understood that the levers constitute a quick and efficient means for freeing the boat from the chocks and that
 35 the falls and tackle and windlass constitute an efficient means for lowering both ends of the boat simultaneously and evenly. One operator alone is required to lower the boat. By the employment of the slot 19 a varying
 40 leverage, increasing as the boat is raised, can be secured. It will be seen that the levers do away with the small windlass shown in Fig. 5 of my above-mentioned patent and besides lifting the boat out of the chocks
 45 (both ends simultaneously with two men) they secure the boat when in the chocks.

While I have illustrated and described a particular and practical embodiment of my invention, it will be readily understood that
 50 many modifications may be made therein and that the invention may be embodied in many other forms.

Having thus described my invention, I claim as new and desire to secure by Letters
 55 Patent—

1. The combination of a pair of connected davits each having a curved portion to support and overhang a boat, means for suspending one end of the boat from each of said
 60 curved portions, means for rocking the davits to swing the boat into and out of them, and means for simultaneously operating both of said suspending means.

2. The combination of a pair of connected
 65 davits each having a curved portion to sup-

port and overhang a boat, means for suspending one end of the boat from each of said curved portions, means for rocking the davits to swing the boat into and out of them, means for simultaneously operating both of
 70 said suspending means, and additional means for lifting the boat out of the chocks of the davits.

3. The combination of a pair of connected davits each having a curved portion to support and overhang a boat, means for suspending one end of the boat from each of said curved portions, means for rocking the davits to swing the boat into and out of them, means for simultaneously operating both of
 75 said suspending means, and additional means for lifting the boat out of the chocks of the davits; said last-named means comprising a lever fulcrumed to the suspending means and connected with the boat.
 85

4. The combination of a pair of connected davits each having a curved portion to support and overhang a boat, means for suspending one end of the boat from each of said curved portions, means for rocking the davits to swing the boat into and out of them, means for simultaneously operating both of
 90 said suspending means, additional means for lifting the boat out of the chocks of the davits, and means for securing said last-mentioned means in position to hold the boat on said supporting means.
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5. The combination with a boat-davit, of means for lifting a boat therefrom, and means for thereafter lowering the boat and the lifting means.
 100

6. The combination with a boat-davit, of means for lifting a boat to free it therefrom, means for securing the lifting means in a stationary position on the boat, and additional
 105 means for thereafter raising or lowering the boat with the lifting means.

7. The combination with a boat-davit, of means for suspending a boat therefrom, and means pivotally mounted on the boat for
 110 steadying the boat with respect to the davit.

8. The combination with a boat-davit, of means for suspending a boat therefrom, and means for steadying the boat with respect to the davit; said steadying means comprising
 115 a lever for lifting the boat.

9. The combination with a boat-davit, of means for suspending a boat therefrom, and means for steadying the boat with respect to the davit; said steadying means comprising a
 120 lever for lifting the boat, and means for securing the lever in two different positions.

10. The combination with a boat-davit having chocks, of a boat adapted to be supported in the chocks, two levers for lifting
 125 the ends of the boat from the chocks, and additional means for simultaneously lowering the ends of the boat.

11. The combination with a boat-davit having chocks for supporting a boat, of a pair
 130

of falls and tackle each connected with one end of the boat, means for operating both sets of tackle simultaneously, and two levers for lifting the ends of the boat from the chocks.

12. The combination of a boat-davit having a top plate, a fall and tackle connected with the top plate, a lever connected with the running-block of the tackle and pivotally connected with the boat, means for securing the lever to the top plate, and means for securing the lever to the boat.

13. The combination of a boat-davit having a top plate, a fall and tackle connected with the top plate, and a lever fulcrumed to the running-block of the tackle and having a variable pivotal connection with the boat.

14. The combination of a pair of tackles, a fall connected with each tackle, means for

connecting the running-blocks of both tackles with the boat, and means for simultaneously winding up the falls.

15. The combination of two sets of tackles each one being provided with a fall, means for simultaneously winding up said falls, and means for connecting the running-blocks of both tackles with the boat, said means comprising a pair of levers one fulcrumed to each of the running-blocks, said levers being pivotally connected with the boat.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NEIL MURCHISON.

Witnesses:

N. G. WATSON,
A. M. BARCLAY.