

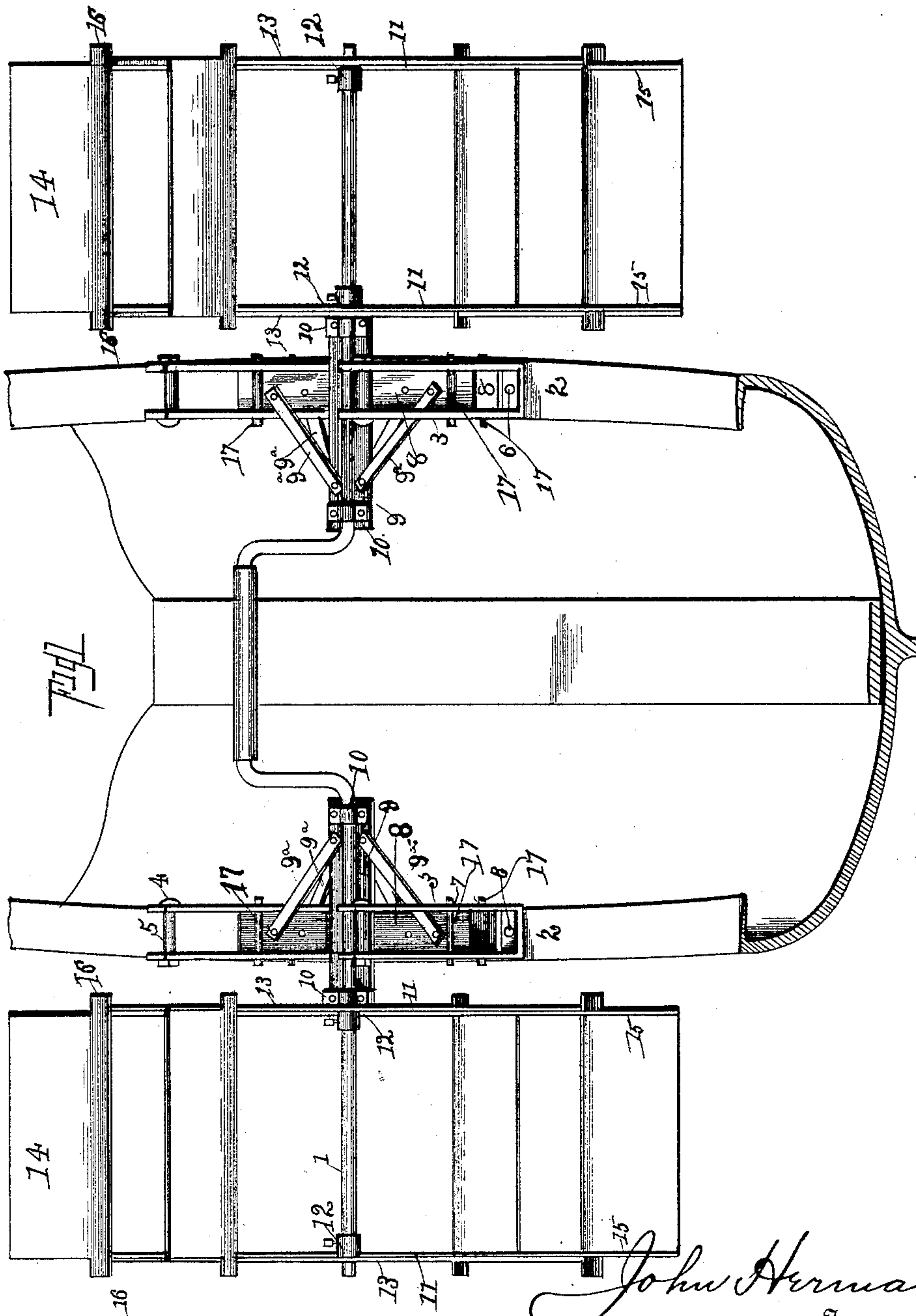
(No Model.)

2 Sheets—Sheet 1.

J. HERMANS.
BOAT PROPELLER.

No. 435,583.

Patented Sept. 2, 1890.



John Hermans
Inventor

Witnesses
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J. F. Relf

By *W. T. Fitzgerald*
Attorney

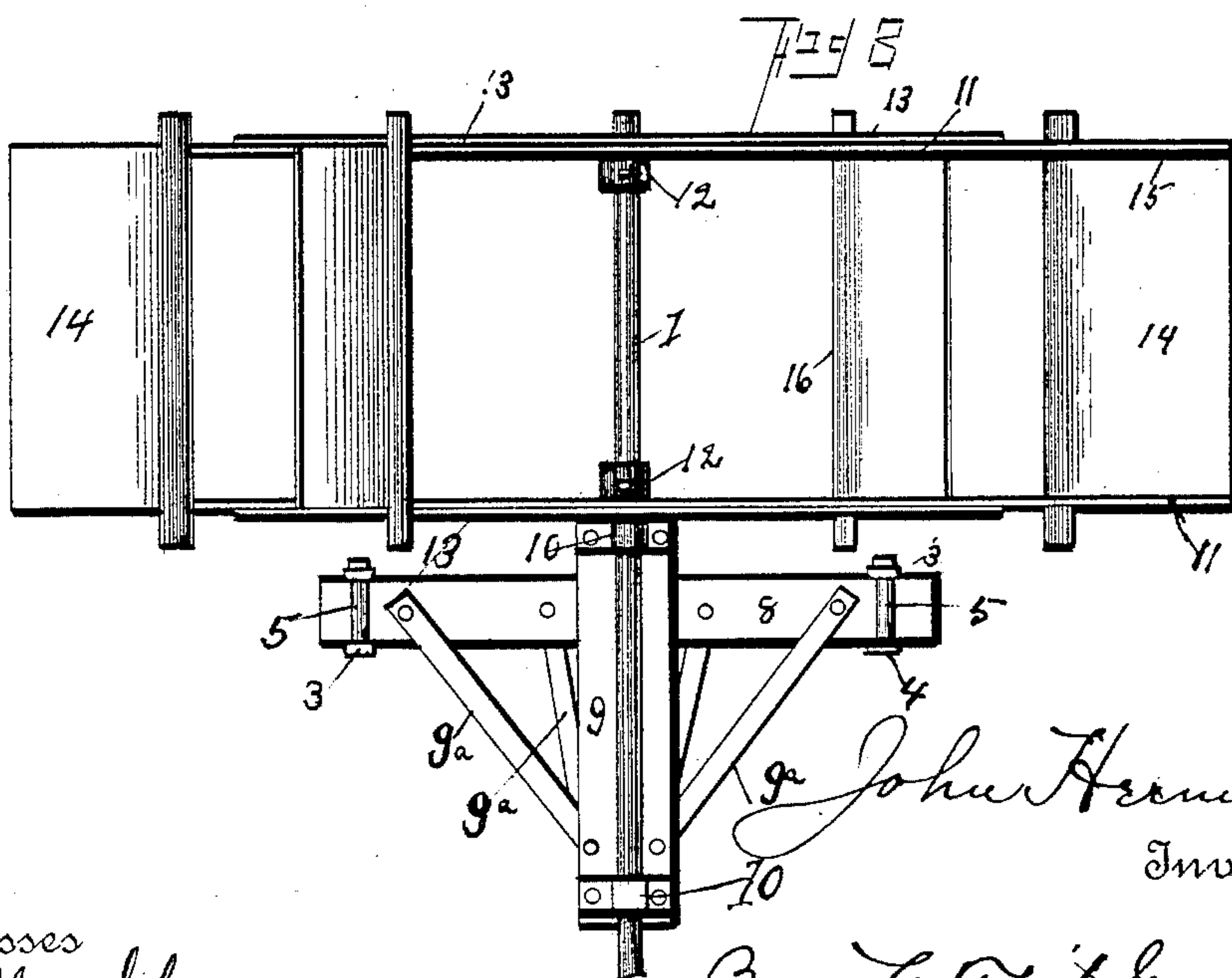
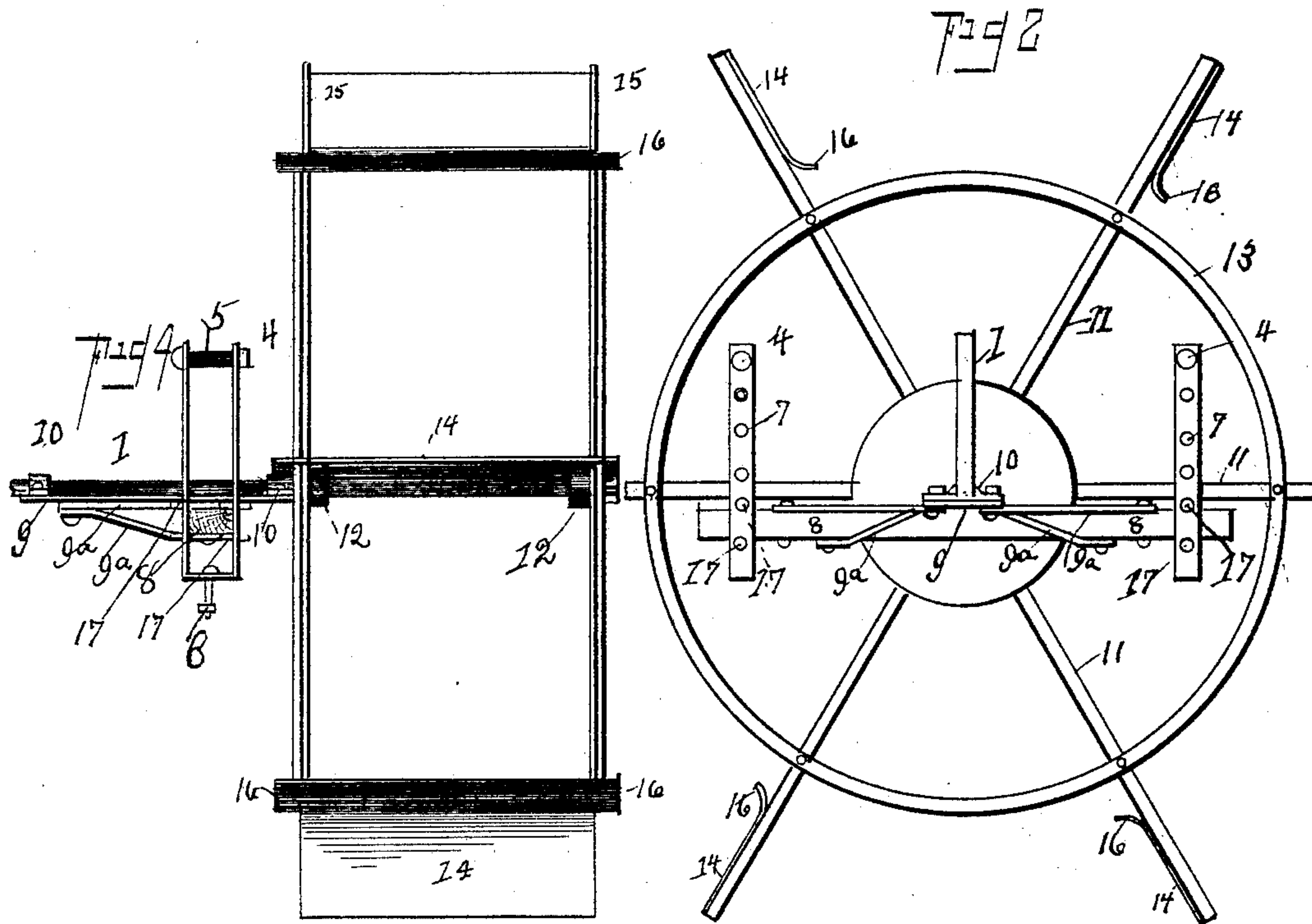
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UNITED STATES PATENT OFFICE.

JOHN HERMANS, OF CHICAGO, ILLINOIS.

BOAT-PROPELLER.

SPECIFICATION forming part of Letters Patent No. 435,583, dated September 2, 1890.

Application filed May 20, 1890. Serial No. 352,434. (No model.)

To all whom it may concern:

Be it known that I, JOHN HERMANS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Boat-Propellers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in a new and improved apparatus or attachment for row-boats which can be secured in position in a few moments to any row-boat, and in which the paddle-wheels can be easily raised and lowered to suit the depth of water; and my invention will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective rear view of my new and improved propelling apparatus. Fig. 2 is a side view taken from the inner side of one of the paddle-wheels. Fig. 3 is a top plan view of the parts shown in Fig. 2, and Fig. 4 is a rear elevation of one of the paddle-wheels and its adjacent parts.

The same numerals of reference indicate corresponding parts in all the figures.

Referring to these several parts by their designating-numerals, 1 indicates the main crank-shaft of my propelling apparatus, which may be arranged to be worked either by foot or by hand power.

In securing my device in position I secure at each side of a boat upon the gunwale 2 thereof two parallel rectangular frames or brackets 3, which are preferably formed each of a single flat metal piece bent as shown and having its upper ends connected by a threaded bolt 4, passing through a sleeve 5, and having a nut screwed upon its end. These frames 3 are secured upon the gunwale of a boat by bolts 6. The vertical parallel sides of each frame 3 are formed with the series of opposite holes 7. Through each pair of frames 3 pass the ends of a supporting-bar 8, as shown, this bar being preferably formed of wood. Upon each bar 8 is bolted a bearing-plate 9, this plate crossing the bar at right angles and having upon each of its ends a bearing 10. The bearing-plates extend inward, as shown, and are firmly held by the upper and lower braces 9^a 9^a, having their outer ends bolted to the bearing-plates and the inner ends bolted to the bars 8. The drive-shaft 1 is mounted,

supported, and turns in these bearings 10 on the bearing-plate, and upon its ends are secured the paddle-wheels. The ends of the supporting-bars 8 are adjustably supported in the frames 3 between transverse bolts 17, which pass through the openings 7 in the sides of the frames, and it will be seen that the paddle-wheels, together with the entire drive-shaft and supporting-bars and the bearing-plates 9, can be readily raised and lowered to suit shallow water and different depths of water by removing the supporting-bolts 17, raising or lowering the cross-bars or supporting-bars 8, as desired, and reinserting the bolts through the appropriate holes 7.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my new and improved propelling apparatus will be readily understood. It will be seen that my propelling apparatus is simple, light, and strong in construction, it is very efficient in operation and will propel a boat rapidly, and the entire apparatus can be easily and readily raised and lowered to suit different depths of water and to raise the wheels when the boat is going through shallow water where the bottom is covered with weeds and grass.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the frames 3, formed with the parallel side pieces provided with the series of side apertures 7, the transverse removable bolts 17, the adjustable supporting-bars 8, the ends of which fit, movably, between the parallel side piece of the frames 3, and a crank-shaft mounted on the said bars and having end paddle-wheels, substantially as set forth.

2. The combination of the frames 3, formed with the series of side apertures 7, the transverse removable bolts 17, the adjustable supporting-bars 8, the bearing-plates 9, secured upon the bars and having the end bearings 10, the braces 9^a, and the drive-shaft mounted in the end bearings 10 and having paddle-wheels at its ends, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HERMANS.

Witnesses:

JAMES HIGGINS,
THOMAS BOLAND.