

No. 696,817.

Patented Apr. 1, 1902.

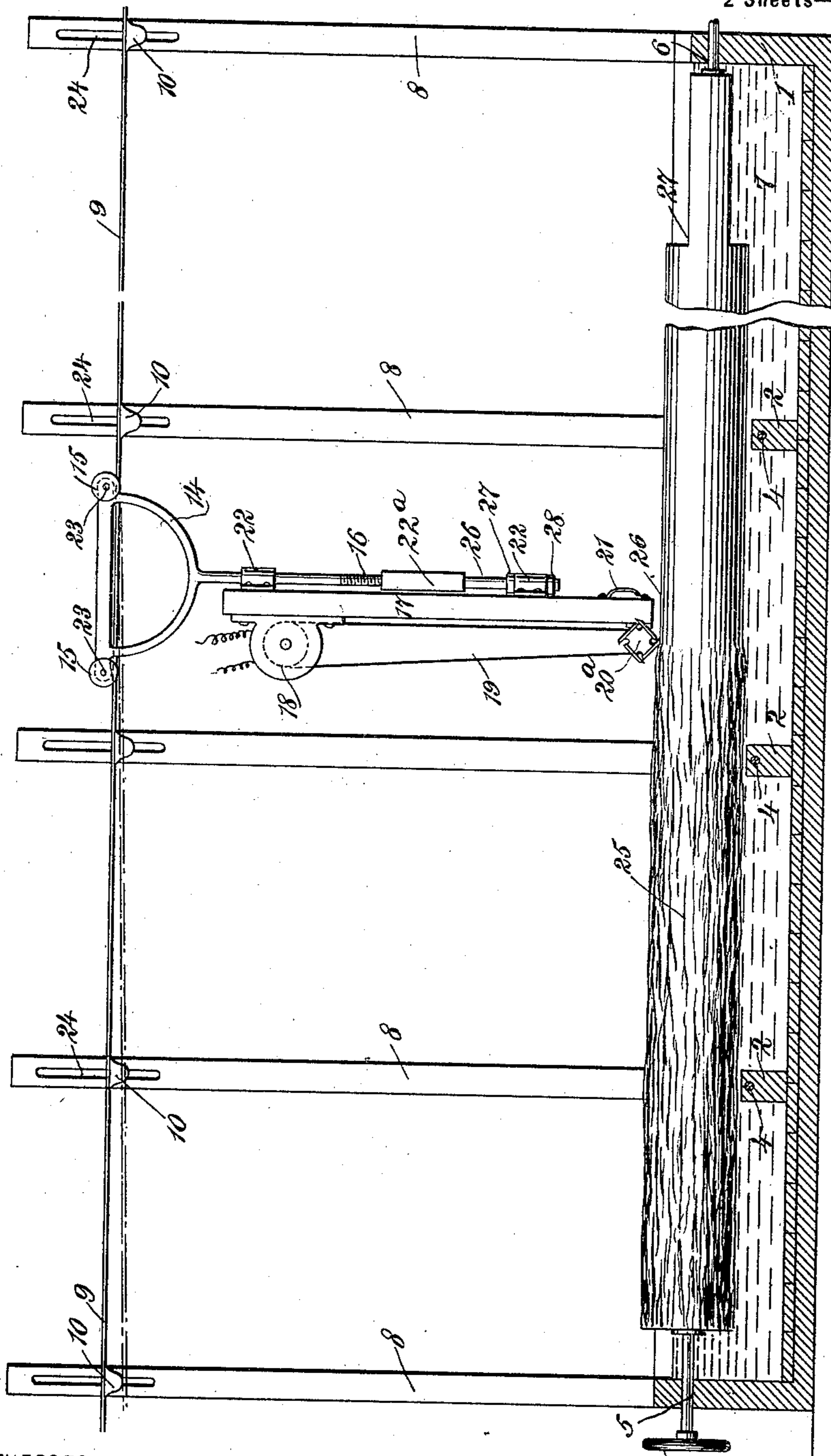
G. H. HILDRETH.
TURNING DEVICE.

(Application filed Jan. 21, 1902.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

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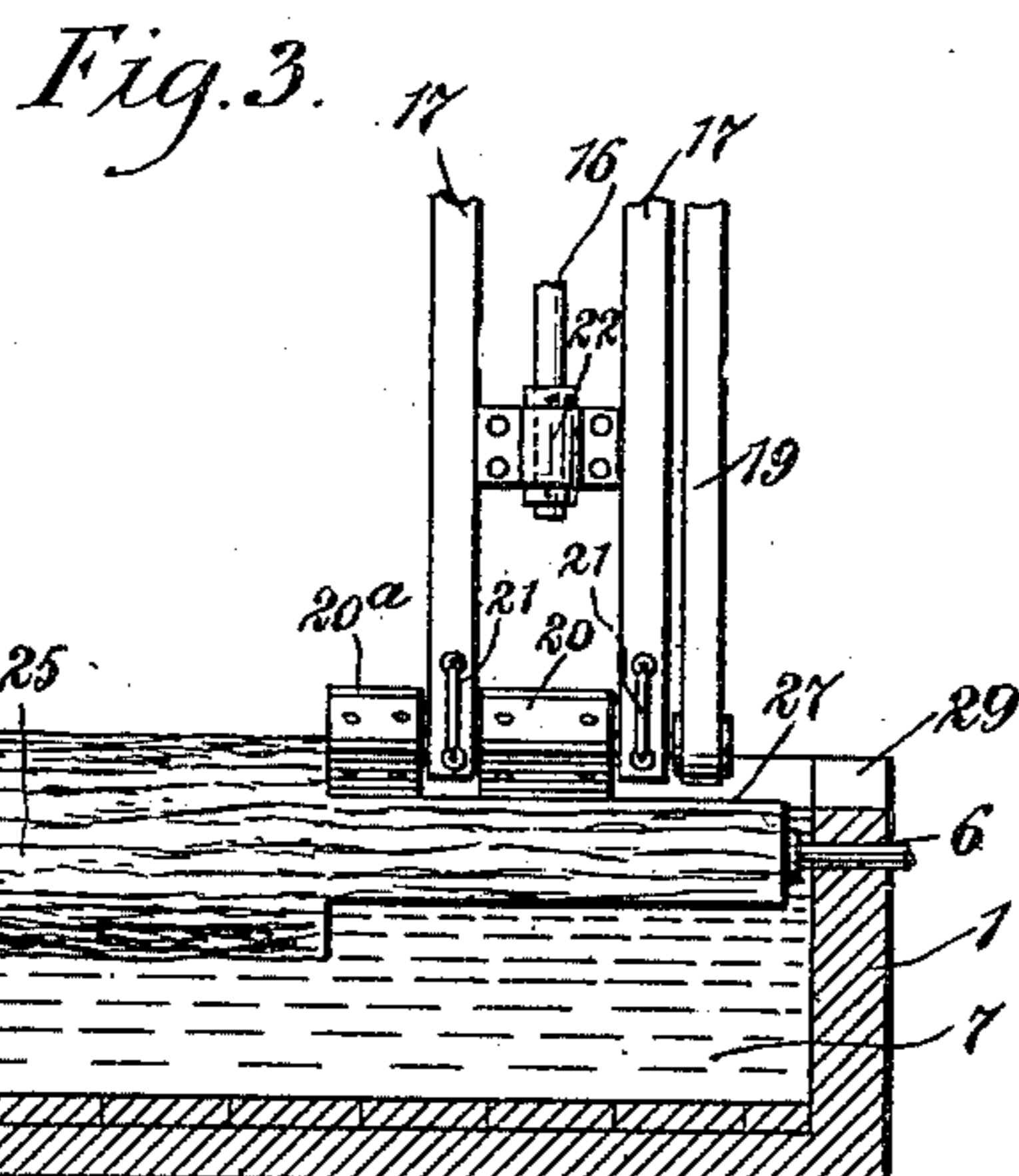
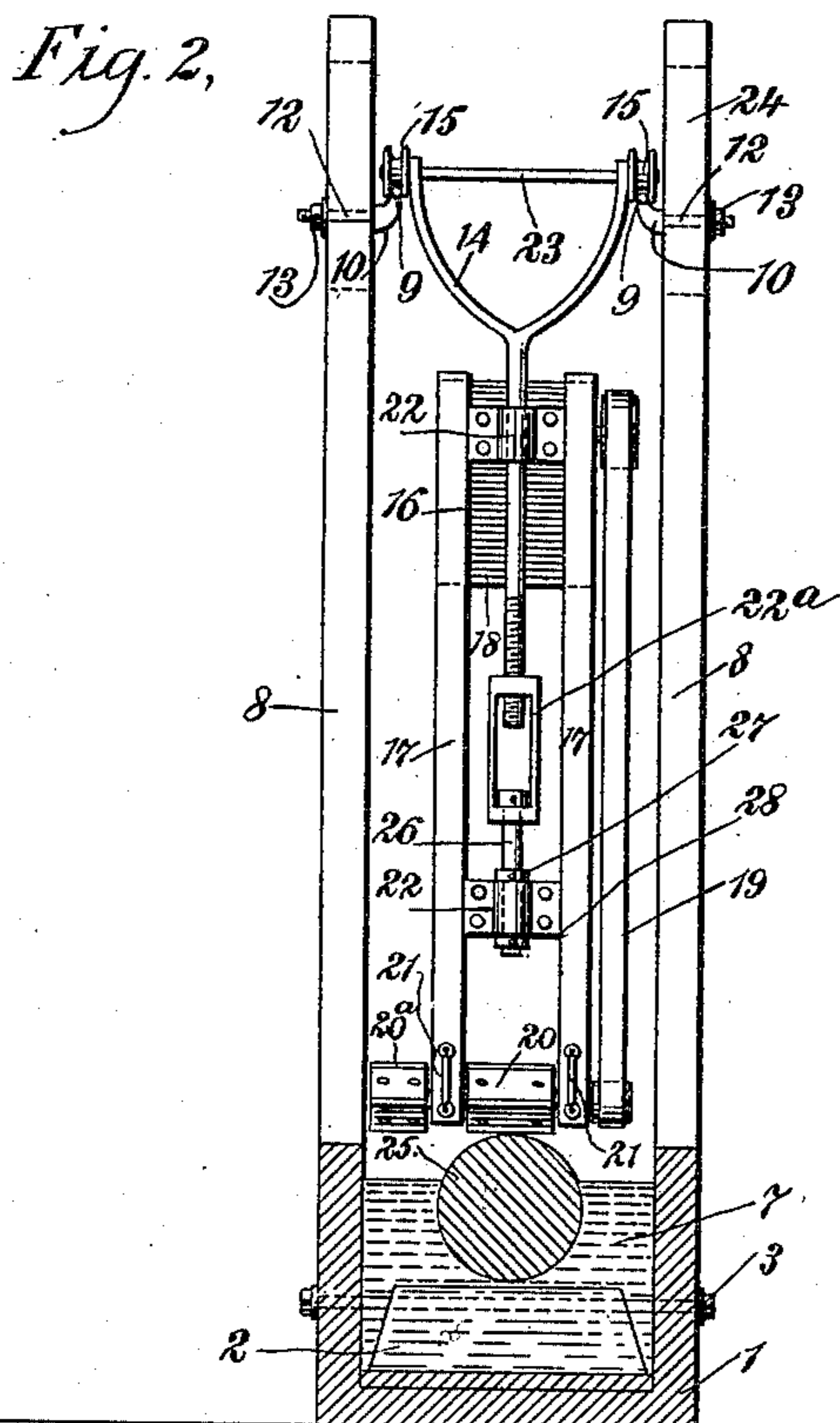
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UNITED STATES PATENT OFFICE.

GEORGE HOSEA HILDRETH, OF SEATTLE, WASHINGTON.

TURNING DEVICE.

SPECIFICATION forming part of Letters Patent No. 696,817, dated April 1, 1902.

Application filed January 21, 1902. Serial No. 90,654. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HOSEA HILDRETH, a citizen of the United States, and a resident of Seattle, in the county of King and State of Washington, have invented a new and Improved Turning Device, of which the following is a full, clear, and exact description.

My invention relates to a device for turning and shouldering masts, spars, posts, and analogous articles.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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 side elevation of the device, partly in section. Fig. 2 is an end elevation of the device, partly in section; and Fig. 3 is a partial sectional side elevation of the device with parts in a different position than that shown in Figs. 1 and 2.

A longitudinal tank 1 is provided with cross-blocks 2, having bolt-holes 4, which are engaged by bolts 3, so as to secure the several parts rigidly in position. Centering devices 5 and 6 are provided for engaging the object to be turned, which object is completely supported by floating in the water 7, contained in the tank 1. A number of uprights 8 support overhead tracks 9, provided with depending plates 10, which engage bolts 12, the bolts being secured by nuts 13, so as to be adjustable in slots 24 in the uprights 8.

A carrier-frame 14 is provided with flanged rollers 15 and travels longitudinally upon the tracks 9. From the carrier-frame depends a screw 16, guided in a block 22 and upon which is mounted a frame 17, carrying an electric motor 18, a belt 19, and movable cutters 20 and 20^a. The frame is manipulated by means of handles 21 and is mounted to turn by the revolution of a turnbuckle 22^a upon the screw 16. The rollers 15 and the frame 14 are engaged by rods 23, as indicated more particularly in Fig. 2.

The log 25, which is to be used in making the spar, mast, post, or other article, is centered upon the centering devices 5 and 6 in

much the same manner that it would be chucked in a lathe. The smooth surface 26 (see Fig. 1) shows the portion of the log which has been operated upon by the cutter-heads 20 and 20^a as the log is turned by means of the wheel 28 in the usual manner.

The turnbuckle 22^a is swiveled upon a rod 26, which is firmly secured by means of set-collars 27 28 upon a second block 22, through which said rod passes.

At 29 (see Fig. 3) is shown an overflow for maintaining the water 7 at a constant level.

The operation of my device is as follows: The log to be turned is placed in position upon the blocks 2 2 and is approximately centered by the centering devices. The tank is then filled with water, as indicated in Fig. 1, thus completely supporting the log. The centering is now made exact and the log is turned as any piece of timber is turned in a lathe. By manipulating the handles 21 and passing the cutter-heads 20 and 20^a over the surface of the log the material thereof is whittled off after the manner of operating with a planer or a milling-cutter. The speed of the cutter-heads is very great as compared with the rotative speed of the log, the two motions being entirely independent.

In cutting the body of the log the cutter 20 is preferably employed. The cutter 20^a can be employed in this relation or not, as desired. For the cutting of shoulders 27, however, the cutter-head 20^a is very essential, as indicated in Fig. 3. In cutting these shoulders the frame 17 is turned at a right angle to the position shown in Fig. 1 and is moved laterally by the handles 21. This movement is indicated in Fig. 3.

The floating of the log upon water renders the weight of the log practically *nil* and also lubricates the bearings or centering devices at the points where friction is likely to occur. It will be observed, therefore, that I have invented a simple and efficient device of great utility and which can be constructed cheaply and operated by any person of ordinary intelligence.

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

1. A turning device, comprising a cutter, means for centering and rotating an object to

be turned, and a tank containing a liquid for floating said object while being turned.

2. A turning device, comprising means for centering and rotating an object to be turned, 5 a tank for floating said object, and a revoluble cutter free to move bodily adjacent to said object to be turned.

3. A turning device, comprising means for centering and rotating an object to be turned, 10 a longitudinal tank for floating said object, and a traveling carrier having a depending arm provided with a revoluble cutter, the said carrier being free to move in a direction substantially parallel with said horizontal 15 tank.

4. A turning device, comprising a longitudinal tank for holding liquid, longitudinal tracks located substantially parallel thereto, means for centering and rotating an object 20 in said tank so as to float therein, overhead tracks substantially parallel with said tank, posts for supporting said tracks, means for adjusting said tracks relative to said posts, and a cutting device for operating upon the 25 object to be turned.

5. A turning device, comprising a longitudinal tank for holding liquid, longitudinal overhead tracks located substantially parallel to said tank, means for centering and rotating an object to be turned, a traveling 30 carrier mounted upon said tracks and provided with a depending screw, a frame pro-

vided with a threaded member for engaging said screw and thereby adjustable relatively to said carrier, revoluble cutters mounted 35 upon said frame and movable bodily therewith, and means for actuating said cutters.

6. A turning device, comprising means for centering and rotating an object to be turned, a tank for holding a liquid for floating said 40 object, supports for sustaining said object independently of said means for centering and rotating and also independently of said liquid, and operating mechanism for cutting the object to be turned. 45

7. A turning device, comprising means for centering and rotating an object to be turned, a longitudinal tank for floating said object, longitudinal tracks located substantially parallel with the general direction of said tank, 50 a traveling carrier having a depending arm provided with a revoluble cutter for engaging the object to be turned, mechanism for actuating said cutter, and means for adjusting the position of the said tracks relatively 55 to the position of said tank.

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

GEORGE HOSEA HILDRETH.

Witnesses:

W. M. WILLIAMS,
WILLIAM WRAY.