

C. L. WOOD, DEC'D.
 C. L. WOOD, JR., ADMINISTRATOR.
 AUTOMATIC CENTERING DEVICE FOR SAWING LOGS.
 APPLICATION FILED NOV. 7, 1908.

995,833.

Patented June 20, 1911.

5 SHEETS-SHEET 1.

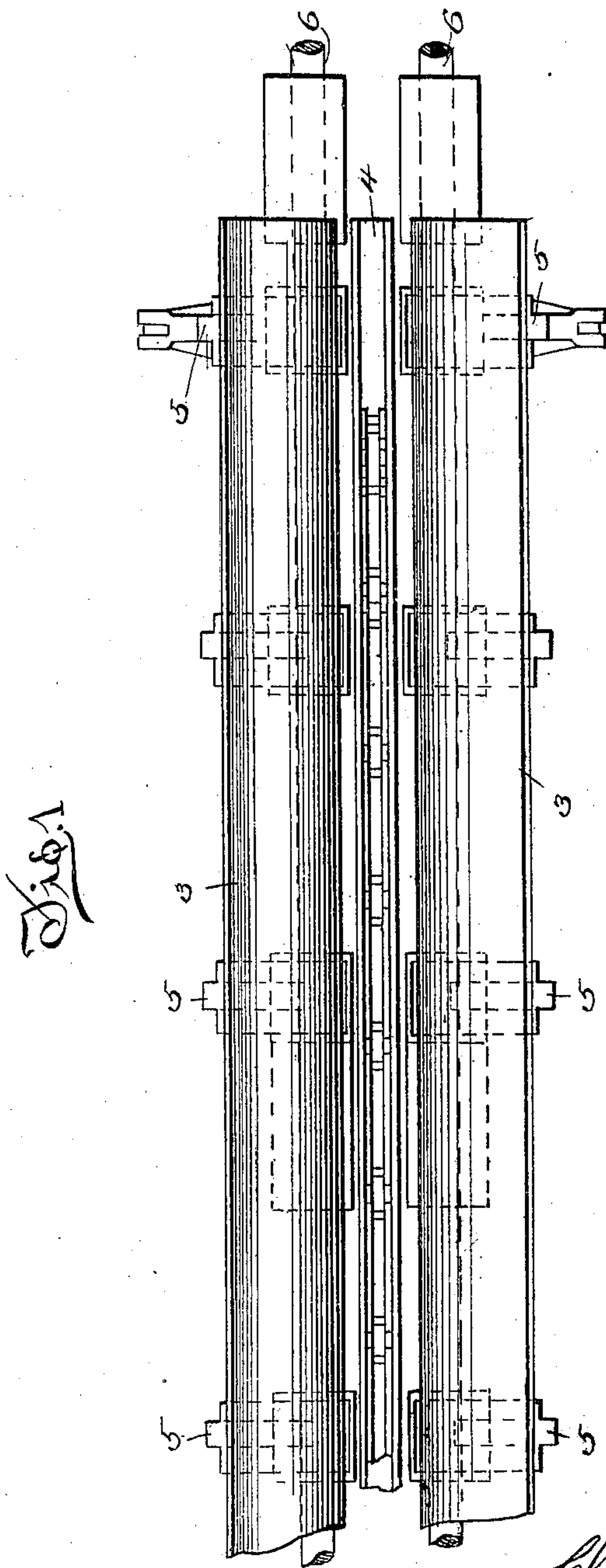


Fig. 1

Witnesses

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A. L. Kitchen.

Inventor

Charles L. Wood

By *Wm. F. Lawrence*
 his Attorney

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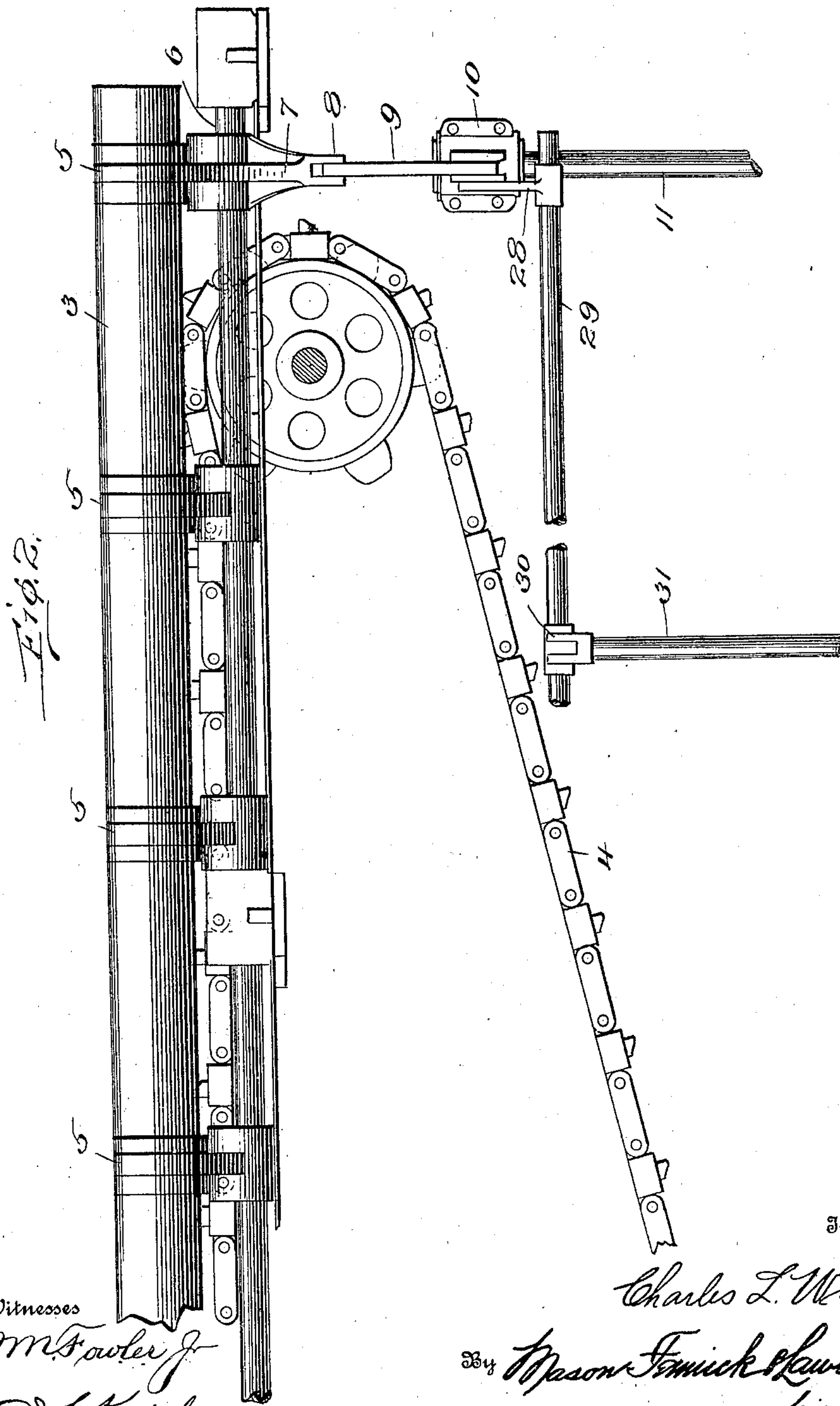


Fig. 2.

Witnesses

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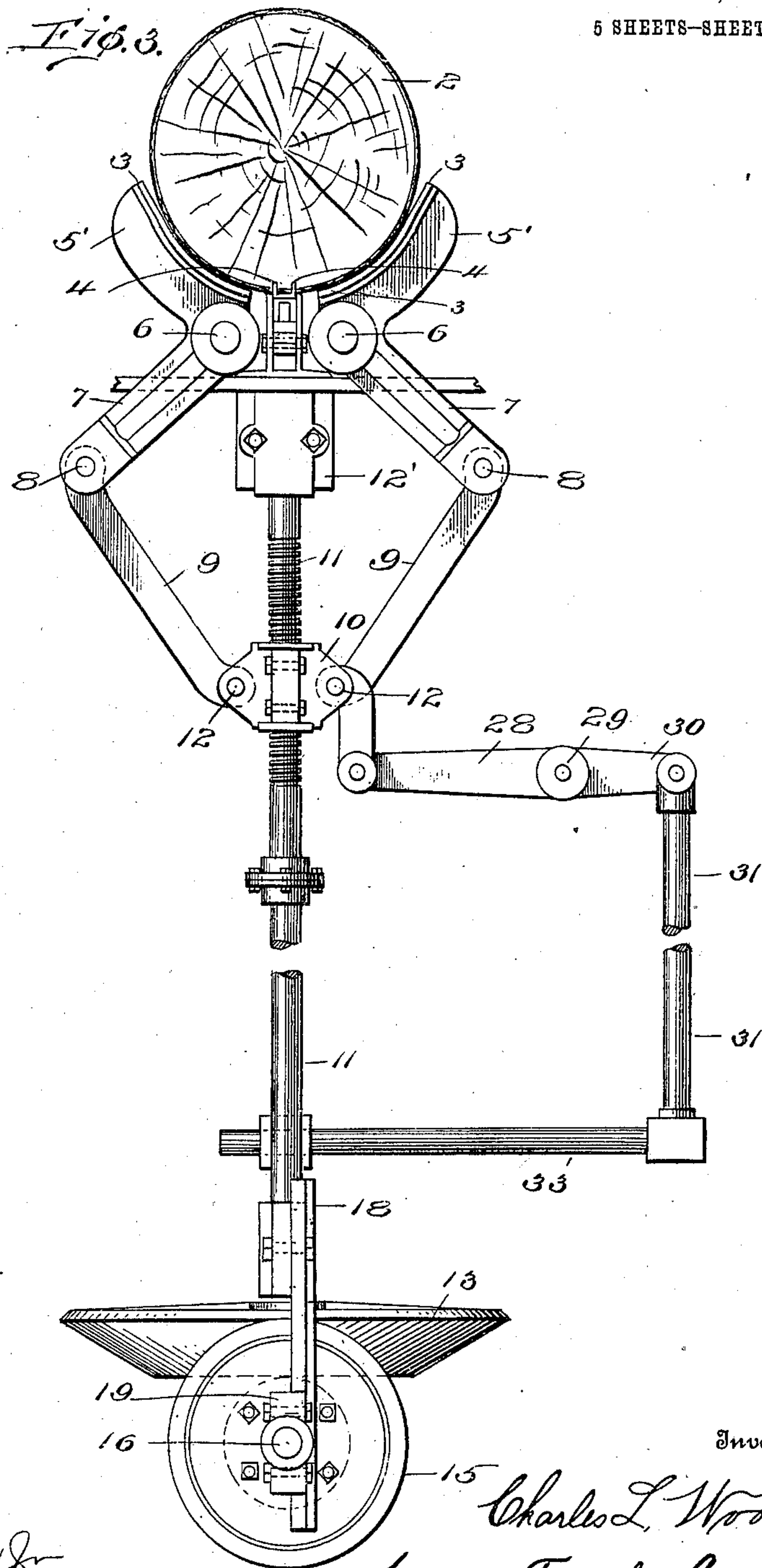
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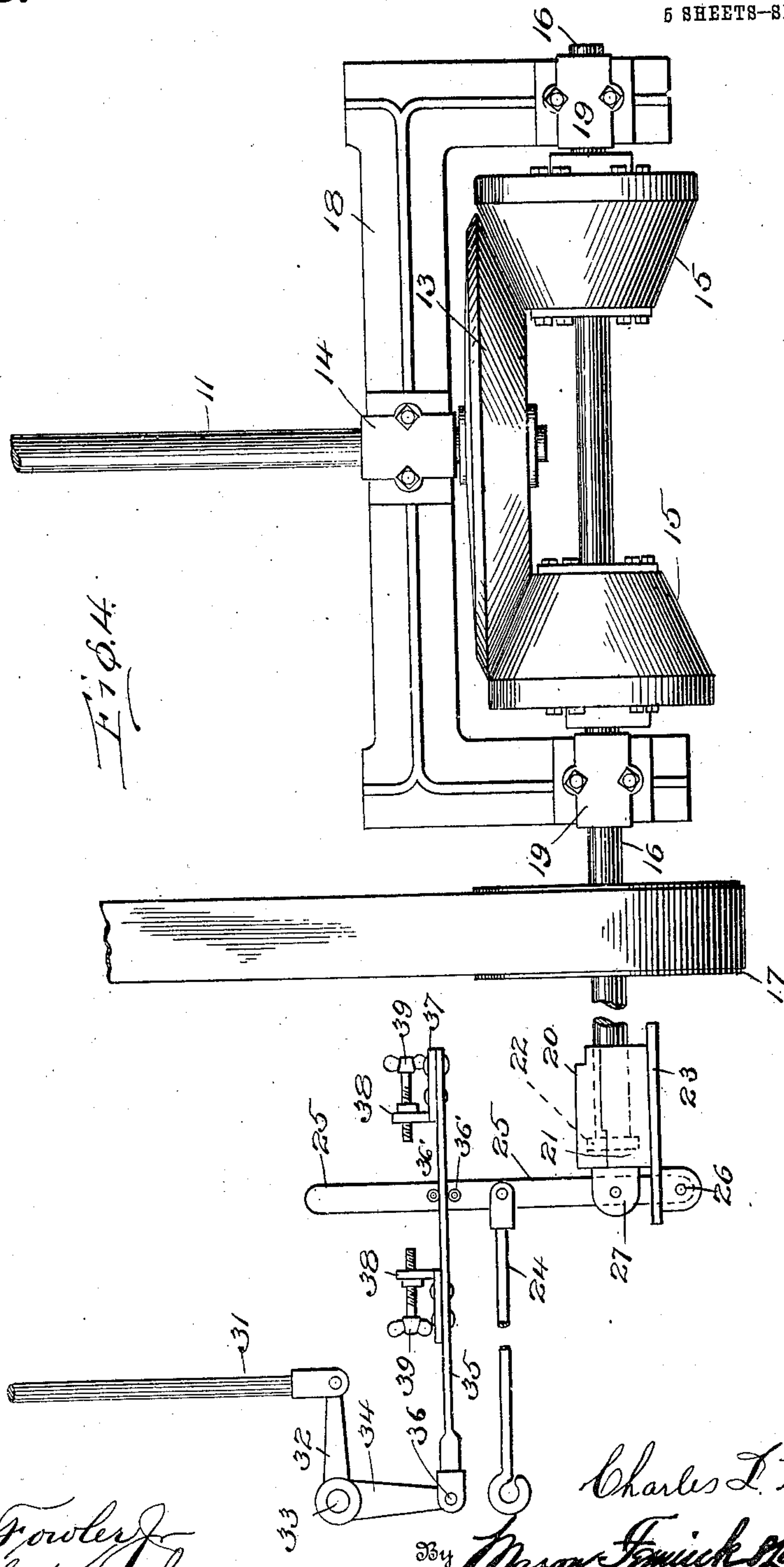
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Inventor

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Witnesses

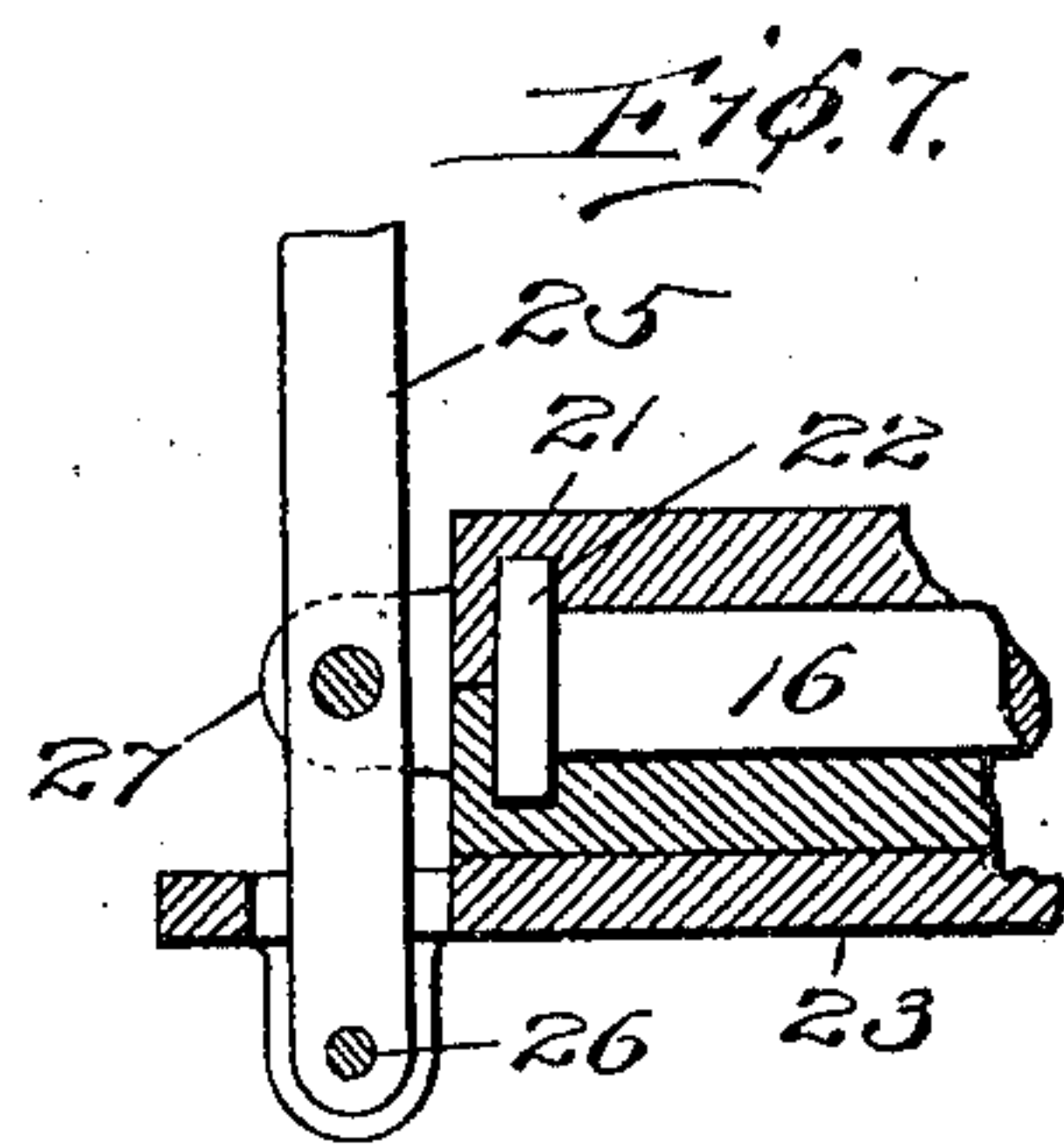
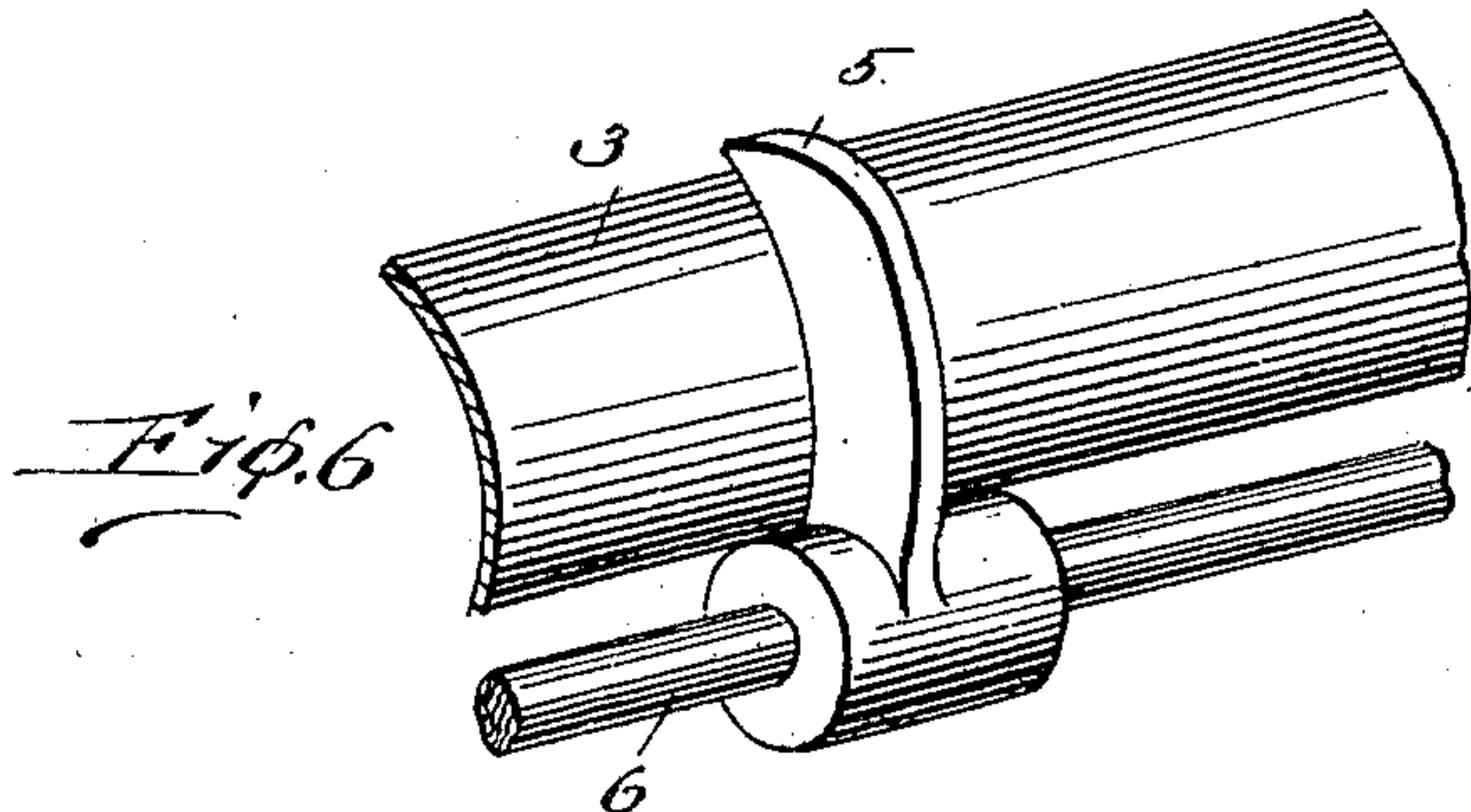
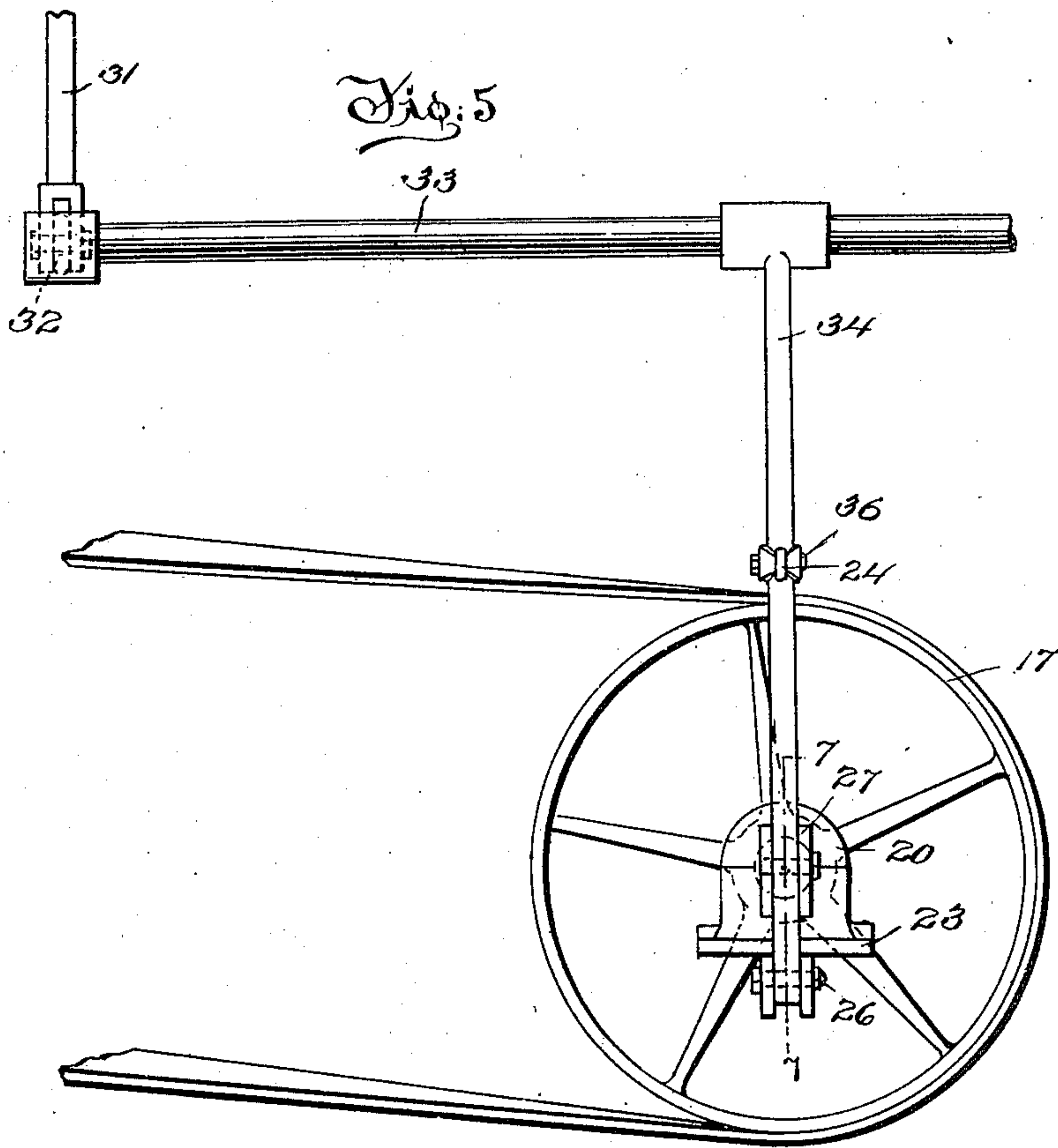
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Witnesses
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UNITED STATES PATENT OFFICE.

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AUTOMATIC CENTERING DEVICE FOR SAWING LOGS.

995,833.

Specification of Letters Patent. Patented June 20, 1911.

Application filed November 7, 1908. Serial No. 461,579.

To all whom it may concern:

Be it known that I, CHARLES L. WOOD, citizen of the United States, residing at Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Automatic Centering Devices for Sawing Logs, of which the following is a specification.

My invention relates to the continuous conveyance of logs to the saw in the modern class of saw-mills.

My invention comprises a device for centering the log to the saw as the log is fed by a chain-feed or other feeding device.

My invention consists of a semi-circular trough, adapted to open and close similar to a clam-shell, to adjust to the size of the log.

My invention further comprises an automatic friction reverse, which operates as a safety control and a limit to the scope of the machine.

My invention further comprises mechanisms for perfect lever control by the sawyer.

In the drawing I have shown an adaptation of my invention to a chain-feed and a twin-band saw-mill.

Figure 1 represents a plan view, parts being broken away, Fig. 2 a side view of the structure shown in Fig. 1, Fig. 3 an end view of the invention, Fig. 4 is a side view detail showing the operation of the automatic friction reverse, Fig. 5 a detail end view of the same, and Fig. 6 is a detail fragmentary perspective view of part of the trough and supporting arm. Fig. 7 is a detail fragmentary view approximately on line 7-7 of Fig. 5.

The device here illustrated is designed for properly positioning a log shown at 2 for moving to the saw of a saw mill and comprises trough side sections 3 in the form of curved plates between which plates a chain 4 is adapted to move longitudinally for the purpose of moving the said log 3. The side trough plates 3 are supported by jaws or knees 5 in the form of bell-crank levers pivoted each upon a longitudinally extending shaft 6, the other part of the bell-crank lever being shown at 7. At the ends 7 of the bell-crank levers pivots 8 are formed to which are pivotally secured links 9 extending at reverse inclination to a sliding block 10, screw-threaded and movable upon the

threaded shaft 11. The pivot of the links 9 with the movable block 10 is indicated at 12 and the shaft 11 is journaled at its upper end in the bearing block 12' and is rotated by means of a bevel friction disk 13 carried at the lower extremity of such shaft 11 and preferably beneath the operating floor a bearing 14 being provided for holding the lower end of such shaft 11 in alinement.

The friction disk 13 is mounted between friction disks 15 carried upon a shaft 16 also preferably mounted below the floor and operated by means of a pulley 17 mounted thereon from any convenient source of power, and all carried journaled in the frame 18 rigidly secured to any convenient stationary body, bearings 19 being provided in such block for journaling the shaft 16. The end of the shaft 16 is also journaled in the bearing block 20, said shaft being provided at its end with a head 21 rotating in the groove 22 in the said sliding block 20 so that sliding movement transmitted to the block 20 is transmitted as longitudinal movement to the shaft 16. The sliding block 22 is mounted upon a base 23 and is moved slidably by means of a link 24 connected with the sawyer's lever not shown and is transmitted to such block by means of a lever 25 pivoted upon the base 23 as at 26 and connected with the sliding block at the fulcrum 27. Connected also with the sliding block is a lever 28 mounted upon the shaft 29 which also carries a lever 30 extending in the direction opposite to the lever 28 and to which lever 30 a plunger 31 is pivoted. The plunger 31 extends downwardly and is pivotally connected with a lever 32 carried upon the rock shaft 33, a lever 34 being also carried upon such rock shaft extending at right angles to the lever 32 and pivotally connected with the sliding bar 35 as at 36. Upon the sliding bar 35 brackets 37 are mounted having upstanding portions 38 through which are threaded screws 39 in position when moved with the sliding bar 35 to engage the lever 25 such lever 25 being positioned relative to the sliding bar 35 by means of rollers 36'.

In operation the manipulation of the sawyer's lever in the ordinary manner will move the link 24 and therewith the lever 25 and sliding block 20 moving the shaft 16 and friction disk 15 alternately into engagement

with opposite sides of the friction disk 16 thereby rotating the shaft 11 in the manner required. As will be apparent the rotation of the shaft 11 moves the sliding bar either
 5 upwardly or downwardly and when moved downwardly serves to close the trough plates 3 upon the log 2 to properly center such log. In case the operator should neglect to properly operate his lever in either direction the
 10 scope of the machine would be limited by reason of the automatic throw-off embodied in the levers 28 and 30, plunger rod 31, rock shaft 33, and sliding bar 25, which would bring the screws 29 alternately into engage-
 15 ment with the lever 25 and thus automatically release the friction disk 15 from engagement with the friction disk 13.

What I claim is:—

1. In a centering device, a plurality of
 20 rock shafts, a plurality of projecting members carried thereby, an operating arm connected with one of such members on each shaft, a third shaft provided with a threaded
 25 threaded portion, links connecting the controlling member with each of the aforesaid operating arms, and means governed by the position of the controlling member on the threaded portion, for imparting motion to
 30 the third shaft.

2. In a centering device, a plurality of rock shafts, a plurality of projecting members carried by each shaft, means for operating the shafts, such means including a
 35 third shaft and devices actuated thereby having connection with the rock shafts, means for driving the third shaft, mechanism for disengaging the driving means, such mechanism including a bar provided
 40 with adjustable stops, means for moving the bar at a predetermined moment, a shaft constituting a part of the aforesaid driving means, a bearing plate, a slidable member arranged to be supported by such plate, and
 45 to loosely support one end of the shaft last mentioned, and means for operating such slidable member by the bar carrying the adjustable stops.

3. In a centering device, a plurality of
 50 rock shafts, a plurality of projecting members carried by each shaft, means for operating the shafts, such means including a third shaft and devices actuated thereby having connection with the rock shafts,

means for driving the third shaft, automatic
 55 mechanism for disengaging the driving means, such mechanism including a bar provided with adjustable stops, means for moving the bar at a predetermined moment, a shaft constituting a part of the aforesaid
 60 driving means, a bearing plate, a slidable member arranged to be supported by such plate, and to loosely support one end of the shaft last mentioned, means for operating such slidable member by the bar carrying
 65 the adjustable stops, and a device connected with the means last mentioned permitting the manual operation thereof.

4. In a centering device, a plurality of rock shafts, a plurality of projecting mem-
 70 bers carried by each shaft, means for operating the shafts, such means including a third shaft and devices actuated thereby having connection with the rock shafts, means for driving the third shaft, mechanism for disengaging the driving means, such
 75 mechanism including a bar provided with adjustable stops, means for moving the bar at a predetermined moment, a shaft constituting a part of the aforesaid driving means, a
 80 bearing plate, a slidable member loosely mounted on the plate and arranged to receive the end of the shaft last mentioned, a lever for pivotally connecting the slidable member and operated by the bar, means for
 85 pivoting the lever to the bearing plate, and means for preventing the longitudinal movement of the shaft in the slidable member.

5. In a centering device, a plurality of centering members proper, a shaft and asso-
 90 ciated mechanism for operating such members, a gear carried by the shaft, a plurality of gears for engaging the gear first mentioned, manual means for controlling the plurality of gears, and automatic means for
 95 controlling such gears, such controlling means including a longitudinally movable shaft, a collar on one end thereof, a bearing plate, a slidable member operating on the plate and loosely engaging the shaft, a col-
 100 lar, and a lever for operating the slidable member.

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

CHARLES L. WOOD.

Witnesses:

RUSH E. MARTIN,
 M. H. O'BRIEN.