

No. 825,321.

PATENTED JULY 10, 1906.

L. HEWITT.
RAIL SAW.

APPLICATION FILED JUNE 28, 1905.

2 SHEETS—SHEET 1.

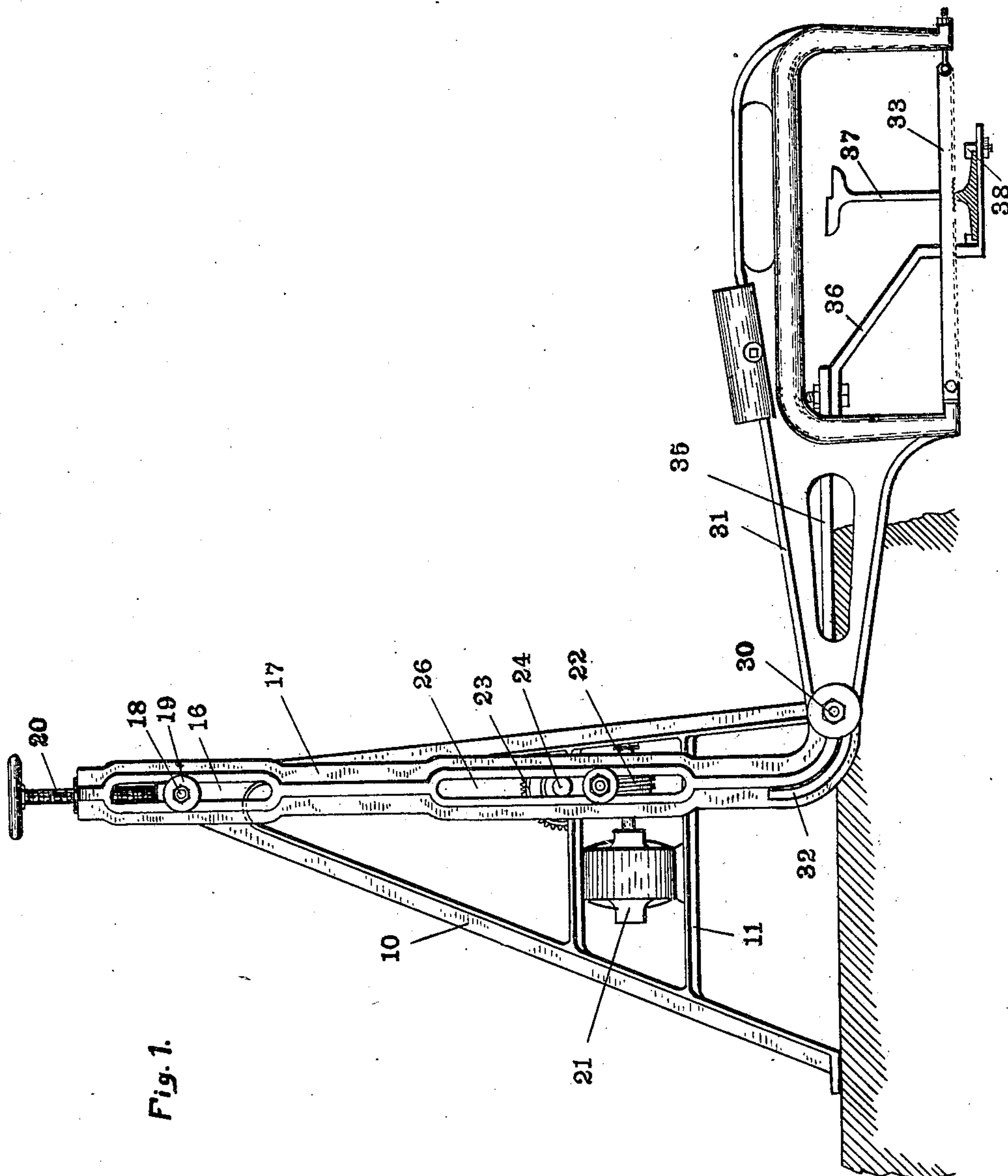


Fig. 1.

Witnesses

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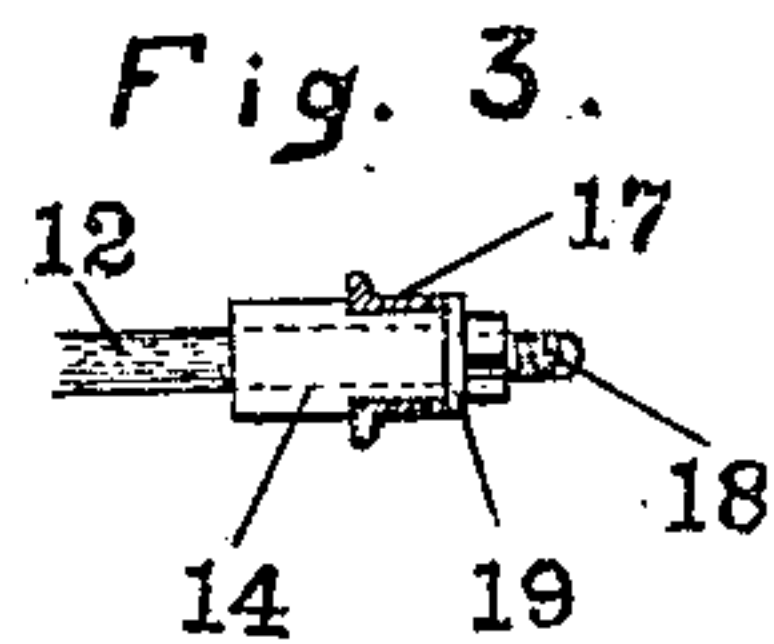
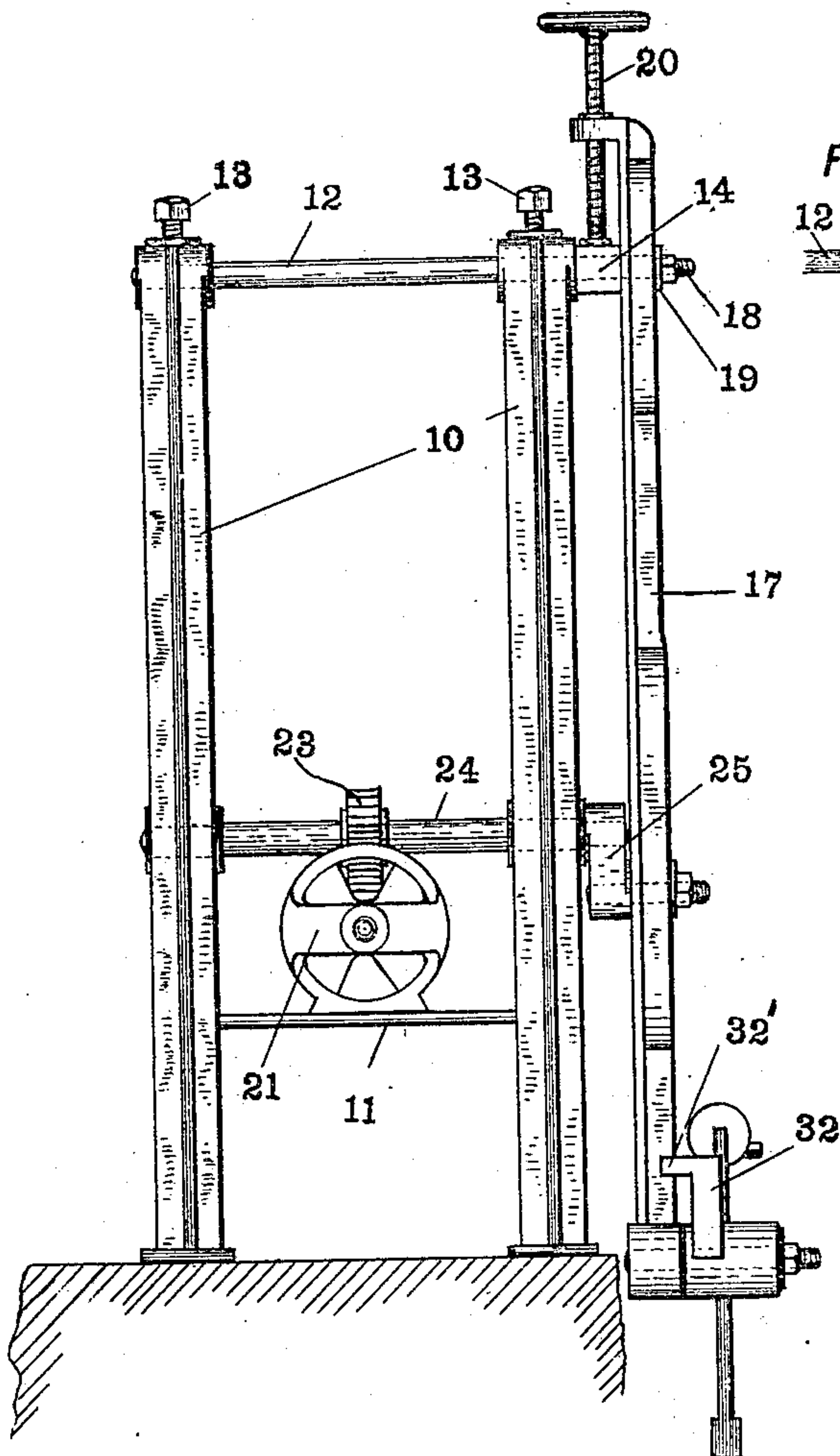
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2 SHEETS—SHEET 2.

Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

LESLIE HEWITT, OF INDIANAPOLIS, INDIANA.

RAIL-SAW.

No. 825,321.

Specification of Letters Patent.

Patented July 10, 1906.

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To all whom it may concern:

Be it known that I, LESLIE HEWITT, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Rail-Saws, of which the following is a specification.

The object of my invention is to produce an efficient power-tool by means of which railway-rails may be cut, the construction being such that the tool may be used to cut rails which are laid and in service without interfering with the regular passage of cars.

The accompanying drawings illustrate my invention.

Figure 1 is a side elevation showing the parts in position of cutting a laid rail, and Fig. 2 an end elevation of the parts shown in Fig. 1.

In the drawings, 10 indicates a suitable supporting-frame, which in the present case is shown as formed of a pair of A-castings, suitably connected by cross-bars 11 and at the top by a rod 12, secured in the castings 10 by any suitable means, such as set-screws 13. One end of the rod 12 is projected beyond the frame and forms a pivoted support for a block 14. Block 14 is provided with a boss which passes through a slot 16 formed in a vertical saw-arm 17. The saw-arm is held in position on block 14 at any desired point in the slot 16 by means of an adjusting-screw 20, which passes through the saw-arm and rests at its lower end on the block 14. The saw-arm is held in transverse position by means of a nut 18 and washer 19, mounted on the outer threaded end of rod 12.

Mounted in the frame 10 is a suitable motor 21, preferably electric, which is suitably geared—as, for instance, by a worm 22 and worm-wheel 23—with a crank-shaft 24, provided at one end with a crank 25, the wrist-pin of which passes through a slot 26 formed in the saw-arm 17.

Pivoted to the lower end of the saw-arm 17 at the point 30 is a saw-frame 31, which is adapted to receive a suitable saw-blade 33. In order to prevent too much downward swing of the saw-frame 31 upon the saw-arm 17, said frame is provided with a rearwardly-extending arm 32, having a finger 32', adapted to engage the saw-arm, as shown. Frame 31 is insulated from the arm 17.

The frame 10 may be made of such weight that it will remain sufficiently stationary for operating at any point at which it may be set;

but I deem it advisable to provide said frame with an extension member 35, to the outer end of which may be attached a clamp 36, adapted to pass beneath the rail 37 and be firmly attached thereto by any suitable clamping-jams 38.

In operation the frame 10 is placed adjacent the rail which is to be cut and connected thereto by the clamping member 36. The saw-arm 17 is then vertically adjusted until the saw 32 properly engages the top of the rail, whereupon the motor is started and the saw reciprocated. As the cutting proceeds the saw-frame 31 will swing downward upon its pivot, and the saw-arm 17 may be adjusted downwardly as may be necessary. Where an electric motor is used, it may be connected to the usual trolley-wire by means of an ordinary hanger commonly in use.

In practice I find that the saw 33 should do its cutting substantially horizontally, and where the rail 37 has considerable height the vertical adjustment of the arm 17 is quite important, as by this means the arm as a whole may be moved downward as the cutting proceeds.

If during the time of cutting a car should approach, it is merely necessary to stop the motor temporarily and swing the saw-frame upward and outward on its pivot 30, the frame 10 being placed a sufficient distance to one side of the track to give ample clearance for the car under such circumstances.

By means of a machine of this character I find it possible to cut a rail much more rapidly than is possible with the present hand method and to do so without interfering with traffic.

I claim as my invention—

1. A rail-saw consisting of a suitable supporting-frame and motor carried thereby, a crank-shaft journaled in said frame and connected with the motor, a saw-arm carried by said frame and connected with said crank, a saw-frame pivotally attached to said saw-arm and adapted to support a substantially horizontal saw below the base of the supporting-frame, interengaging parts carried by the saw-arm and the saw-frame to limit the movement of the saw-frame on the arm, and means for vertically adjusting the saw-arm on the supporting-frame.

2. A rail-saw consisting of a suitable supporting-frame, a block pivotally supported thereon, a vertical saw-arm, an adjusting-screw forming an adjustable support be-

tween said block and saw-arm, means for reciprocating the saw-arm, and a saw-frame carried by said arm.

3. A rail-saw consisting of a suitable supporting-frame, a block pivotally supported thereon, a vertical saw-arm, an adjusting-screw forming an adjustable support between said block and saw-arm, a motor carried by the frame, a crank-shaft driven by said motor and driving the saw-arm, and a saw-frame pivotally attached to the saw-arm.

4. A rail-saw consisting of a suitable supporting-frame, a reciprocable substantially vertical saw-arm carried by said frame, a substantially horizontal saw carried by said arm and vertically movable with relation thereto, interengaging parts between the saw-arm and the saw to limit the downward movement of said saw on the saw-arm, a motor carried by the frame, intermediate driving connections between the motor and

saw-arm, and means for vertically adjusting said saw-arm on the frame.

5. A rail-saw consisting of a suitable supporting-frame, a substantially vertical saw-arm carried by the frame, a substantially horizontal saw-frame carried by said saw-arm by a pivotal connection, a saw carried by said saw-frame, interengaging parts carried by the saw-arm and the saw-frame to limit downward pivotal movement of the saw-frame on the saw-arm, and means for vertically adjusting said saw-arm on the main frame to project the saw below the base of the main frame.

In witness whereof I have hereunto set my hand and seal at Indianapolis, Indiana, this 23d day of June, A. D. 1905.

LESLIE HEWITT. [L. s.]

Witnesses:

ARTHUR M. HOOD,
JAMES A. WALSH.