

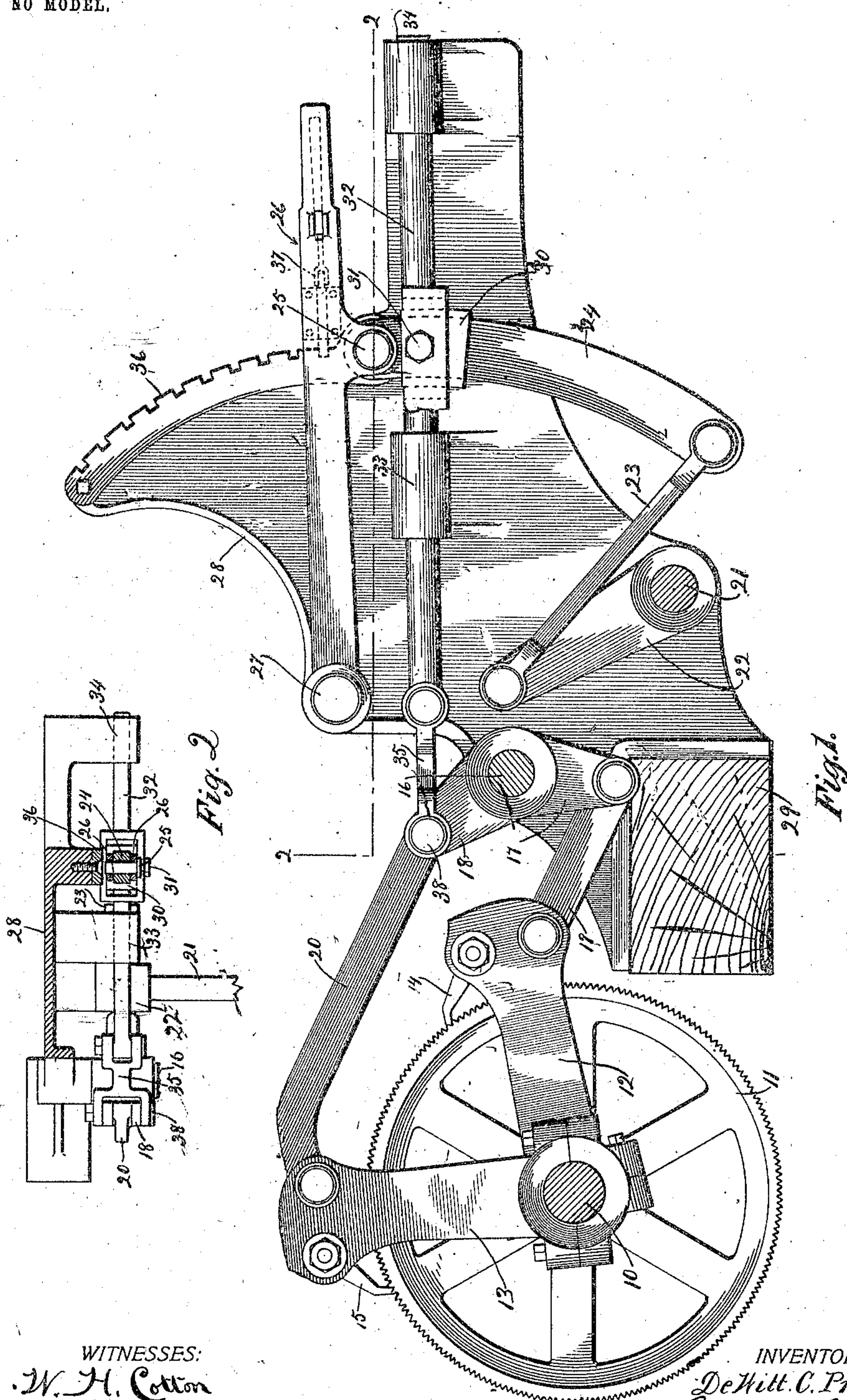
No. 757,224.

PATENTED APR. 12, 1904.

DE WITT C. PRESCOTT.
SAWMILL SET WORKS.

APPLICATION FILED JUNE 12, 1908

NO MODEL.



UNITED STATES PATENT OFFICE.

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SAWMILL SET-WORKS.

SPECIFICATION forming part of Letters Patent No. 757,224, dated April 12, 1904.

Application filed June 12, 1903. Serial No. 161,142. (No model.)

To all whom it may concern:

Be it known that I, DE WITT C. PRESCOTT, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Sawmill Set-Works, of which the following is a specification and which are illustrated in the accompanying drawings, forming a part thereof.

10 This invention relates to that class of sawmill set-works in which there are employed a rotatable set-shaft and an oscillating rocker-shaft, power being applied to the latter and transmitted to the former through a ratchet-
15 and-pawl mechanism.

More specifically it relates to such set-works when power-operated and provided with mechanism for varying the range of movement of the set-works, although the movement of the
20 engine may be uniform, another form of the invention being shown and the invention being broadly claimed in a copending application of even date herewith.

The object of the invention is to simplify
25 the construction of machines of this character; and it consists in the parts and combination of parts, as hereinafter described, and illustrated in the accompanying drawings, in which—

30 Figure 1 shows a detail transverse section of a sawmill-carriage, the setting mechanism being shown in elevation; and Fig. 2 is a detail section on the line 2 2 of Fig. 1.

I have not deemed it necessary to show a
35 complete carriage, and it will be understood that the set-shaft has suitable bearings on the carriage and is provided with the necessary accessories for connecting it with the knees thereof.

40 The set-shaft is shown at 10 and is provided with a ratchet-wheel 11 and also carries a pair of oscillating pawl-carriers 12 and 13, provided with suitable pawls, as 14 15, for engaging the teeth of the ratchet-wheel.
45 The rocker-shaft 16 is provided with a pair of oppositely-directed crank-arms 17 18, which are connected, respectively, with the pawl-carriers 12 and 13 by the links 19 20.

The mechanism thus far described constitutes the so-called "two-way" set-works, now 50 in common use and which may be operated either by power mechanism or by hand. As the present machine is organized it is provided with an auxiliary rocker-shaft 21, which may be actuated by any suitable form of motor. (Not shown.) This rocker-shaft is provided with a crank-arm 22, which is connected, by means of a link 23, with an oscillating link-
55 bar 24, which swings about a pivot-pin 25 by which it is attached to a hand-lever 26, pivoted at 27 to a bracket 28, secured to a portion of the sawmill-carriage, as the beam 29. A block 30 is mounted so as to slide upon the link-bar 24, and this block is pivotally attached, as shown at 31, to a reciprocating
60 rod 32, sliding in the bearings 33 34, formed on the bracket 28, and connected, by means of the link 35, with one of the crank-arms, as 18, of the rocker-shaft 16. The link-bar 24 is curved to an arc, and its radius equals the distance between the pivot 31 and the pivot 38, attaching the link 35 to the crank-arm 18. The lever 26 sweeps over a quadrant 36, formed on the bracket 28, and is provided with a spring-latch 37, (shown in dotted lines, Fig. 1,) which coöperates with the teeth thereof.

The thickness of the lumber manufactured is determined by the position of the hand-lever 26. When this lever is in its lowest position, as shown in the drawings, the pawl-carriers have their shortest movement. When it is desired to cut thicker lumber, the hand-lever is raised, thereby relatively moving the block 30 away from the center 25, about which the link-bar 24 oscillates, and hence
85 increasing the range of movement of the rocker-shaft 16, and consequently of the pawl-carriers.

While I have shown and described a pawl-and-ratchet mechanism for actuating the set-shaft, such mechanism specifically is not of the essence of the invention, which would include in its scope any oscillating clutch mechanism whether positive or frictional.

I do not herein broadly claim means for
95 varying the throw of the set-shaft relatively

to the stroke of the motor, such claim being made in my copending application, Serial No. 161,141.

I claim as my invention--

- 5 1. In a sawmill set-works, in combination, a rotatable shaft, a ratchet-wheel thereon, oscillating pawl-carriers, a rocker-shaft having crank-arms, link connection between the crank-arms and the pawl-carriers, a reciprocating element connected with a crank-arm of the rocker-shaft, an oscillating link or arm in sliding engagement with the reciprocating member, and means for actuating the oscillating link or arm.
- 15 2. In a sawmill set-works, in combination, a rotatable shaft, a ratchet-wheel thereon, oscillating pawl-carriers, a rocker-shaft having crank-arms, link connection between the crank-arms and the pawl-carriers, a reciprocating element connected with a crank-arm of the rocker-shaft, a second rocker-shaft having a crank-arm, a block pivotally attached to the reciprocating element, a pivoted hand-lever, a link or arm pivotally attached to the
- 25 hand-lever and in sliding engagement with

the block, and link connection between such arm and the crank-arm of the second rocker-shaft.

3. In a sawmill set-works, in combination, a rotatable shaft, a ratchet-wheel thereon, 30 pawl-carriers oscillating on the shaft, a reciprocating bar connected with the pawl-carriers, a block pivotally attached to the bar, a pivoted hand-lever, a swinging arm pendent from the lever and in sliding engagement with the 35 block, and means for swinging the arm.

4. In a sawmill set-works, in combination, a rotatable shaft, a ratchet-wheel thereon, pawl-carriers oscillating on the shaft, a reciprocating bar connected with the pawl-carriers, 40 a block pivotally attached to the bar, a pivoted hand-lever, a quadrant over which the lever sweeps, a swinging arm pendent from the lever and in sliding engagement with the block, and means for swinging the arm.

DE WITT C. PRESCOTT.

Witnesses:

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