

No. 730,574.

PATENTED JUNE 9, 1903.

J. SCHERER,
LOG TURNER.

APPLICATION FILED DEC. 3, 1902.

NO MODEL.

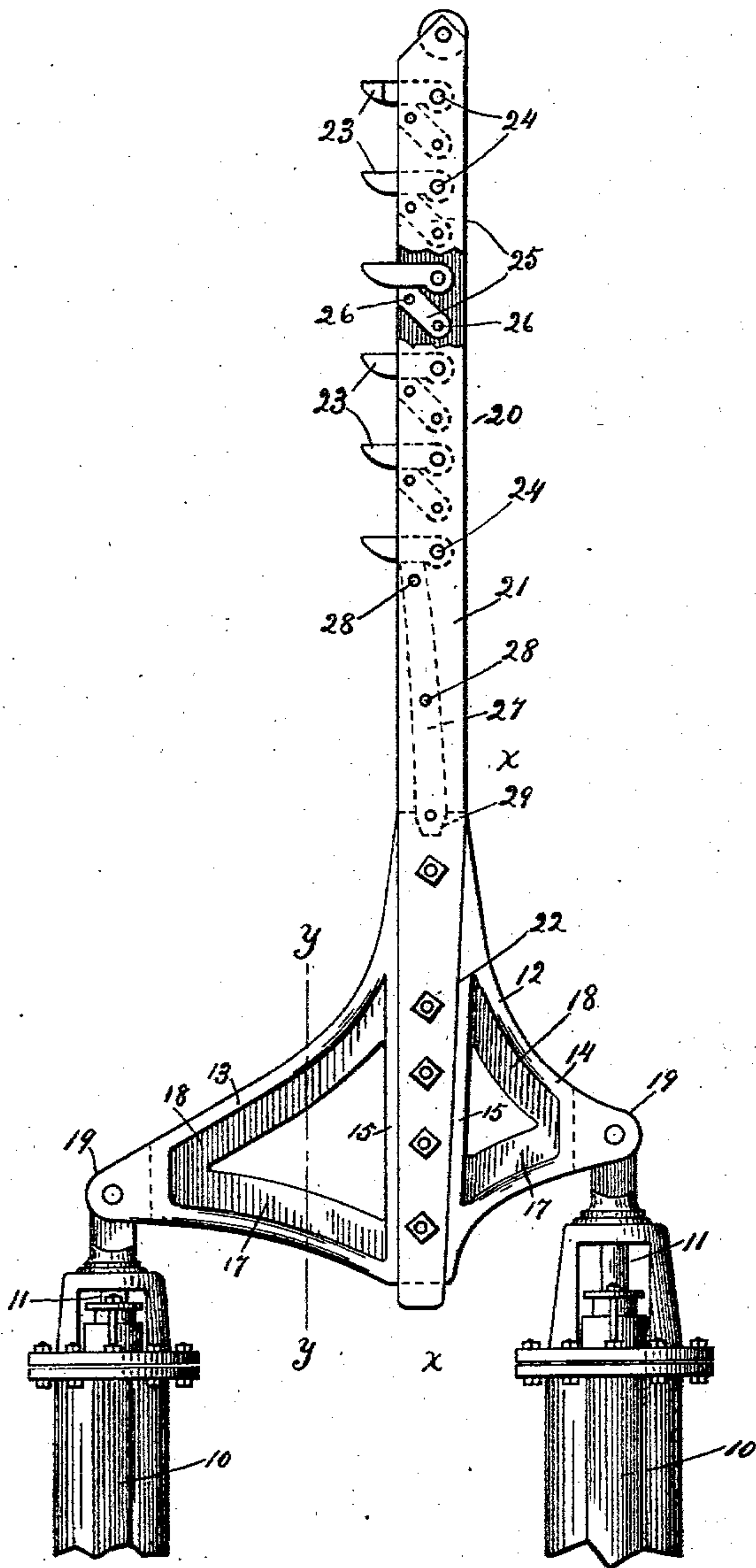


Fig. 1.

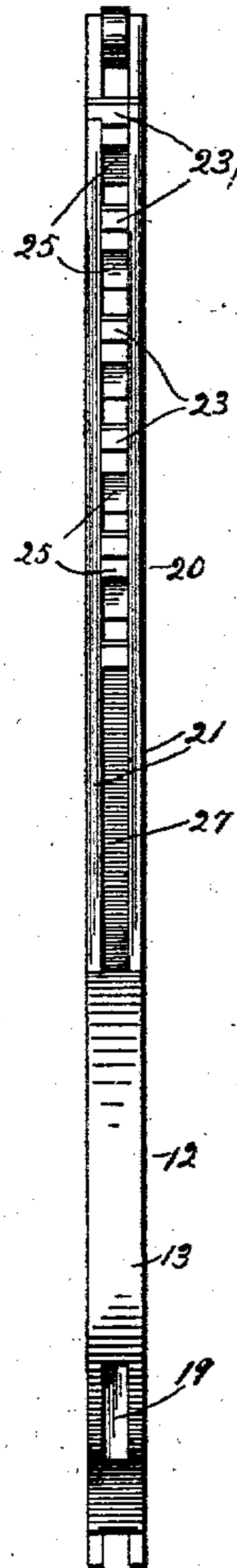


Fig. 2.

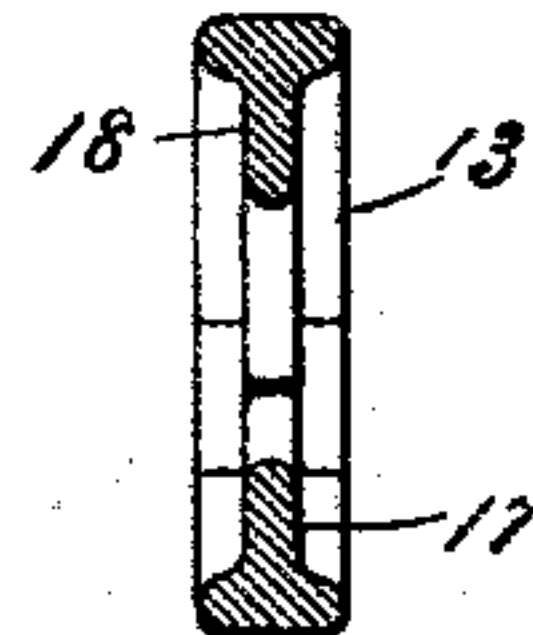


Fig. 3.

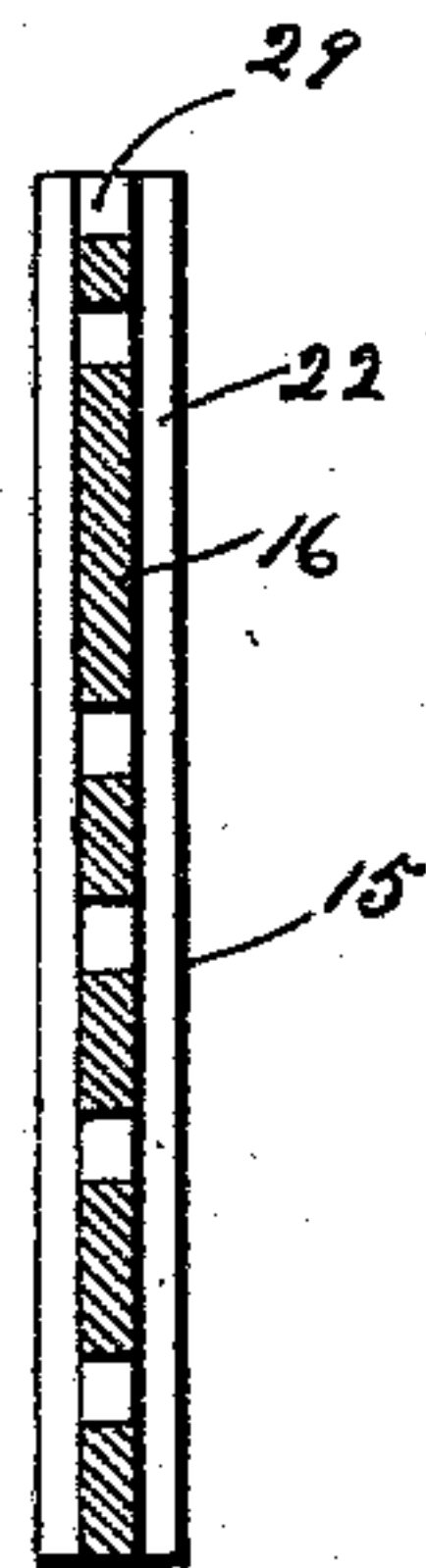


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN SCHERER, OF MARINETTE, WISCONSIN, ASSIGNOR OF ONE-HALF TO
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LOG-TURNER.

SPECIFICATION forming part of Letters Patent No. 730,574, dated June 9, 1903.

Application filed December 3, 1902. Serial No. 133,786. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHERER, a citizen of the United States, and a resident of Marinette, county of Marinette, and State of Wisconsin, have invented certain new and useful Improvements in Log-Turners, of which the following is a specification and which are illustrated in the accompanying drawings, forming a part thereof.

This invention relates to improvements in that class of log-turners operated by a pair of reciprocating engines and adapted to roll logs from the log-deck onto the sawmill-carriage, as well as to turn the same while resting on the head-blocks.

The invention has for its object to improve the general arrangement of such mechanism and to provide a strong and rigid structure that shall be well adapted to resist the severe strains to which devices of this character are subjected.

The invention consists of the combination and arrangement of parts hereinafter particularly described, specifically designated in the claims, and which are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a log-turner constructed in accordance with my invention. Fig. 2 is a front elevation of the same. Fig. 3 is a section on the line *y y* of Fig. 1, and Fig. 4 is a section on the line *x x* of Fig. 1.

The cylinders, partially shown at 10 10, for operating the log-turner are of ordinary construction and have their pistons 11 11 pivotally connected to the opposite ends of the base 12 of the tooth-bar.

The base 12 is one of the essential features of the invention and is so constructed as to be exceedingly strong and rigid and capable of effectively resisting the enormous strains to which the tooth-bar is subjected in turning and moving a log. As illustrated, said base comprises a double truss-frame, which may be made of cast-steel and consisting of a pair of laterally-extending substantially triangular preferably integral sections 13 and 14, the inner or what I shall term the "base" members 15 being connected or attached together.

Each of the truss-sections 13 and 14 consists, in addition to its base 15, which is shown

as being tied to the base of the other truss-section by a web 16, of a tension member 17 and a compression member 18, which extend laterally and converge, as shown, the apex of each triangular section being preferably bifurcated, as at 19, to receive the pivoted end of the piston 11 of the cylinder 10 adjacent that end of the truss, and the compression and tension members of each of the sections 13 and 14 may, if desired, be bowed inwardly slightly, as shown.

The tooth-bar or log-turning lever 20 is supported by the base 12 and may consist of a pair of parallel suitably-spaced bars 21, one at each face of the truss-frame 12, extending near to or below the juncture of the tension members 17 and the bases 15 and secured by bolts 22, passing through the bars 21 and the truss-frame and clamping the latter between them. In order to secure greater fixity, the lower ends of the bars 21 are tapered, and the bases 15 of the triangular sections are inclined inwardly from the top and being of greater thickness than the web 16 provide on each face of the truss-frame a tapered recess or groove 22, in which the ends of the bars are seated, thereby providing a snug fit and avoiding any lateral movement of the bars.

The parallel bars 21 have located between them and projecting outwardly from the edge of the turning bar or lever toward the sawmill-carriage teeth or spikes 23, and such teeth or spikes may be pivoted on pins 24, so as to recede when the bar is lowered while in contact with a log or cant, as will be readily understood.

The teeth 23, with the exception of the bottom one, are shown as being supported when in their advanced or active position by diagonally-disposed abutment-blocks 25, flattened at their forward upper ends where the teeth 23 rest thereon and located between the bars 21 and each of which is secured by a plurality of bolts or pins 26, preferably disposed in a line substantially coincident with the line or direction of pressure when the tooth supported thereby is engaging a log or cant. This construction provides a firm support for each tooth and does not weaken the turning-bar, as most any other arrangement of securing apertures would.

The lower tooth, which is mounted in a manner similar to the others, may be supported by a bar 27, secured by pins or bolts 28 between the parallel bars 21 and having its lower end seated in a socket 29 between the bases of the sections of the truss-frame. The end of the bar 27 is preferably tapered and the socket 29 shaped to correspond to provide a snug fit for the bar. As thus arranged, the bolts 28 for securing the bar 27 need not be relied upon to resist the strain on the lower tooth, and the bolt-holes, which are a source of weakness in the bar, may be placed relatively far apart, as the strain is thrown on the truss-frame.

The rigidity and strength of the truss-frame 12 may be augmented by having the inner ends of the tension members 17 extend, irrespective of the position of the turning-bar, below the line of the pivots of the pistons 11 at the opposite ends of the truss-frame. Then in turning the tooth-bar there will be a tension exerted across the bottom of the bar and at a relatively great distance, due to the wide bearing provided on the truss-frame for the bar 20, a compression at the upper end of the truss-frame, each triangular section 13 and 14 resisting the compressive and tensile strain of the other.

I claim as my invention—

1. In a log-turner, in combination, a trussed frame-base consisting of an integral casting comprising a pair of laterally-projecting triangular sections joined at their bases by a web portion, a pair of reciprocating engines the pistons of which are pivotally connected to the apexes of the triangular sections, the tension or lower members of the triangular truss-sections at their juncture with the bases extending below the line of the pivotal connections, and a tooth turning-bar consisting of a pair of parallel bars attached to the web portion and extending across the faces of the truss-frame.

2. In a log-turner, in combination, a base comprising a pair of triangular sections each of which consists of laterally projecting and converging compression and tension members and a base connected to the base of the other section, and a turning-bar secured to

the base along the connection of the two sections.

3. In a log-turner, in combination, a trussed base-frame consisting of an integral casting comprising a pair of laterally-projecting triangular sections joined at their bases by a web portion, operating connections pivotally connected to the apexes of the triangular sections, and a turning-bar consisting of a pair of parallel bars attached to the opposite faces of the base along the web portion.

4. In a log-turner, in combination, a bar, a base to which the bar is fixed, means for tilting the base, teeth pivoted on the turning-bar, and a bar secured to the turning-bar upon which the bottom tooth rests and which extends to and is supported by the base.

5. In a log-turner, in combination, a pair of parallel bars, a base to the opposite faces of which the bars are fixed and having a socket in the top thereof, means for tilting the base, teeth pivoted on and between the parallel bars, and a bar secured between the parallel bars upon which the bottom tooth rests and which extends to and is seated in the socket in the base.

6. In a log-turner, in combination, a trussed base-frame comprising a pair of integral laterally-projecting triangular sections, operating connections pivoted to the apexes of the triangular sections and the tension or lower members of the latter at their juncture extending below the points of attachment of the operating connections, and a turning-bar fixed to the base across the juncture of the triangular sections and the extended portions of the latter.

7. In a log-turner, in combination, a base-frame comprising a pair of laterally-projecting triangular sections, operating connections attached to the apexes of the triangular sections, the tension or lower members of the latter at their juncture extending below the points of attachment of the operating connections, and a turning-bar fixed to the base across the juncture of the triangular sections.

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Witnesses:

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