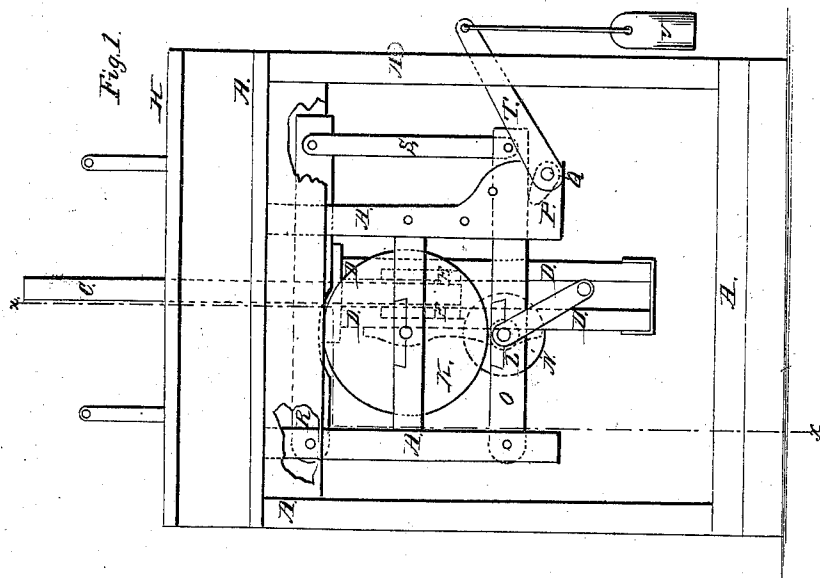
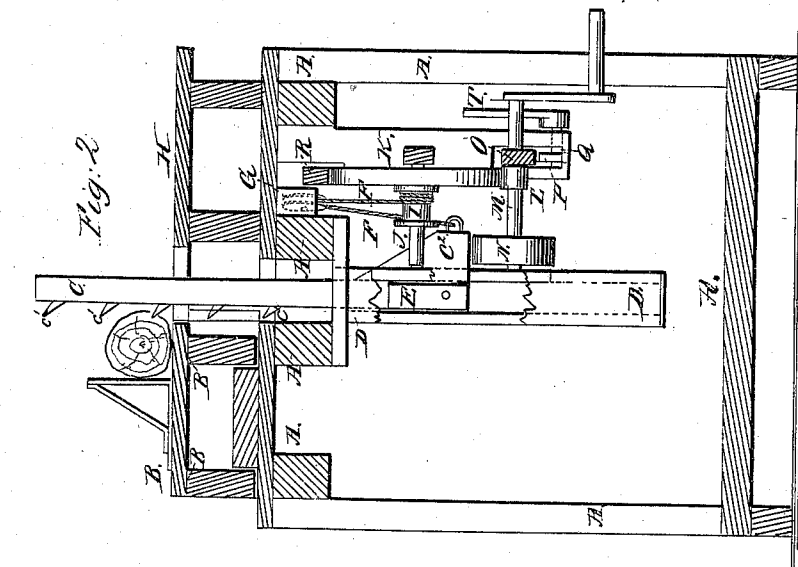


E. Tarrant.
Log Turner.
Nº 81,432. Patented Aug 25, 1868.



Witnesses.

Wm. A. Morgan
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UNITED STATES PATENT OFFICE.

ESAU TARRANT, OF MUSKEGON, MICHIGAN.

IMPROVEMENT IN MACHINE FOR TURNING LOGS IN SAW-MILLS.

Specification forming part of Letters Patent No. 81,432, dated August 25, 1868.

To all whom it may concern:

Be it known that I, ESAU TARRANT, of Muskegon, in the county of Muskegon and State of Michigan, have invented a new and Improved Machine for Rolling Saw-Logs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

Figure 1 is a side view of my improved machine, parts of the frame being broken away to show the construction. Fig. 2 is a detail sectional view of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved device for turning or rolling logs upon the carriage of circular or other saw mills, which shall be simple in construction, effective in operation, and conveniently operated; and it consists in the construction and combination of the various parts, as herein-after more fully described.

A represents a part of the frame-work, and B represents the log-carriage of an ordinary saw-mill, about the construction of which parts there is nothing new.

C is an upright bar, having teeth *c'* attached to its forward side, and which moves up and down between the posts D attached to the frame A. The lower end of the toothed arm C is pivoted to and between two blocks, E, which move up and down in grooves in the inner sides of the posts D, as shown in Fig. 2 and in dotted lines in Fig. 1. This construction enables the upper end of the upright bar C to move back and forth to adjust itself to the size of the log to be rolled or turned upon the carriage B, and also to enable the teeth *c'* to pass the log when the bar is descending.

To the rear side of the lower end of the bar C is attached, or upon it is formed, a block, arm, or projection, *c²*, to which is attached the end of the rope or chain F, by means of which the said upright bar C is raised to turn the log. This manner of attaching the hoisting-chain forces the upper end of the said bar C forward, causing the teeth *c'* to take a firmer hold upon the log to be rolled.

The chain or rope F passes over a pulley, G, secured in proper position immediately beneath the log-deck H, and thence down to the barrel or drum I of the shaft J, to which its end is securely attached.

To the shaft J is attached the large friction-pulley K, to which motion is given by the small friction-pulley L, attached to the shaft M, to which shaft is also attached the pulley N, by means of which motion is communicated to the apparatus from the driving power of the mill.

One end of the shaft M works in stationary bearings attached to or connected with the frame of the mill, and its other end works in bearings attached to the bridge-tree O, one end of which is pivoted to the frame A, and the other end of which rests upon the cam P of the cam-shaft Q, so that by means of said cam-shaft the bridge-tree O may be raised or lowered to bring the friction-pulley L into or remove it from contact with the friction-pulley K.

R is the brake-bar, which may be made of wood or other suitable material. One end of the brake-bar R is pivoted to the frame A or to some other suitable support, and its other end is connected with the end of the bridge-tree O by the bar S, so that as the friction-pulley L is moved away from the friction-pulley K the brake may be applied to the friction-pulley K, either to hold the bar C stationary or to allow it to descend with any desired rapidity.

To one end of the cam-shaft Q is attached a lever or arm, T, having a weight, U, suspended from its end, which may be regulated to hold the friction-pulley L against the friction-pulley K with any desired force.

The lever or arm T may be operated to throw the friction-pulley L into or out of gear with the friction-pulley K by means of levers or cords, as may be desired or convenient.

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

1. The toothed bar C, pivoted at its lower end between the blocks E, which are adapted to slide in vertical grooves formed in the posts D, whereby the said bar C is rendered vertically movable, and capable of adjustment to suit logs of different sizes, substantially as herein set forth and shown.

2. The combination with and arrangement

with relation to the bar C of the cord or chain F, pulley G, shaft J, drum I, friction-pulleys K L, and adjustable shaft M, all as set forth and shown.

3. The arrangement of the pivoted brake R, connection S, and pivoted bridge-tree O, (in which is formed the outer bearing for shaft M,) substantially as herein shown and described, whereby pulley L is removed from contact with pulley K, and the brake brought into contact with the latter, and vice versa, simultaneously, as herein set forth.

4. The arrangement of the cam and shaft P Q and weighted arm T, with relation to the connected brake and bridge-tree, to operate as and for the purpose described.

The above specification of my invention signed by me this 10th day of June, 1868.

ESAU TARRANT.

Witnesses:

ALEX. RODGERS,
JNO. LOWE.