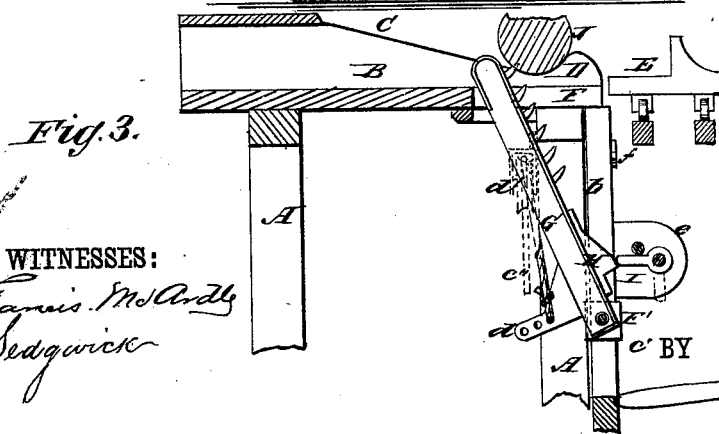
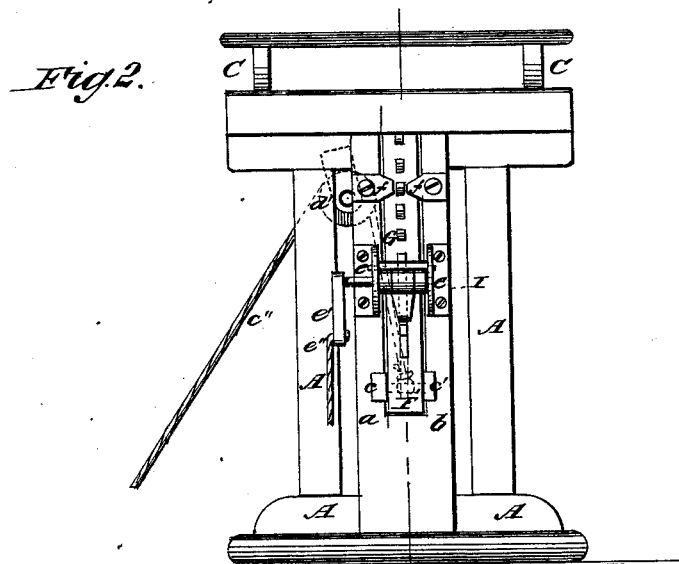
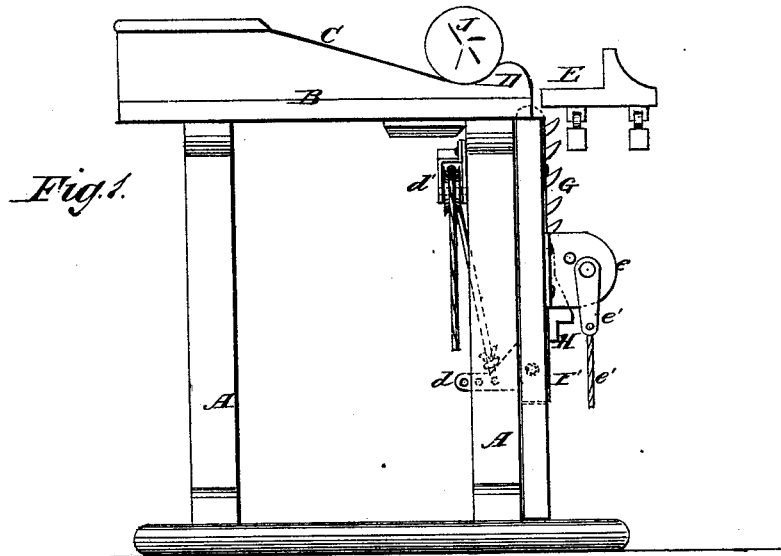


E. TARRANT.
Log-Roller.

No. 213,953.

Patented April 1, 1879.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ESAU TARRANT, OF MUSKEGON, MICHIGAN.

IMPROVEMENT IN LOG-ROLLERS.

Specification forming part of Letters Patent No. **213,953**, dated April 1, 1879; application filed September 3, 1878.

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 Log-Roller, of which the following is a specification:

The object of my invention is to provide an arrangement for transferring the logs from the log-deck onto the saw-mill carriage expeditiously and with but little labor.

It consists of an elevated log-deck having inclines provided with stops adjacent to the head-blocks of the carriage, and a toothed bar or ratchet arranged to move vertically and with a lifting motion through the floor of the deck in such a way that when the log is rolled down and rests against the stops the toothed bar can be made to lift and roll it over them upon the head-blocks without further handling.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improvement. Fig. 2 is an end view of the same, and Fig. 3 is a vertical and longitudinal section thereof.

Similar letters of reference indicate corresponding parts in all the figures.

Referring to the drawings, A represents the frame-work of the log-deck, B is the floor thereof, and C C are the inclines down which the logs roll one by one until they rest against the stops D at the lower end of each incline, and in juxtaposition to the ends of the head-blocks on the carriage E. In the floor of the log-deck, midway between the inclines, and with one end in line with the stops D, is a slot, F. Below the floor two upright posts, *a b*, are fixed to the front of the frame, and on either side of the slot, which constitute guides and ways, in which runs vertically the head F', forming the lower part of the toothed bar or ratchet G. This bar is pivoted to two plates, *e e'*, one on either side, which are flanged, so as to hold the bar securely between the guides, and at the same time allow it a free swinging movement, for the purpose hereinafter de-

scribed. To the back of this toothed bar is fixed a lug, *d*, to which a rope, *e''*, is attached, its free end running over a pulley, *d'*, fixed to the frame just under the floor, and thence to a place where it can be conveniently operated. To the front of the lower part of the bar, just below the ratchet, is fixed an inclined plate, H. To the front of the guide-posts *a b*, in juxtaposition to the inclined plate H, is a cam, I, fixed to a shaft journaled in the plates *e e'*. On the end of the cam-shaft is an arm, *e'*, to which a cord, *e''*, is attached, the free end being placed conveniently near the free end of the cord attached to the lug *d*, so they can both be operated together. A stop likewise fixed in the plates *e e'* limits the movement of the cam. Lugs *f f'* on the front of the guides *a b* prevent the toothed bar G from being thrown forward.

The operation of my improvement is as follows: The log J, being rolled down the inclines, rests against the stops D. The cam I is then drawn up to a horizontal position, as indicated in Fig. 3. The other cord is then drawn, drawing up the toothed bar G, and when the inclined plate H comes in contact with the cam I the bar G is thrown back, or the upward end is turned backward on the pivot, and the teeth taking hold of the log lift it and turn it at the same time, and it is finally lifted entirely over the stops and deposited on the head-blocks of the log-carriage.

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

An improved log-roller composed of the toothed bar or ratchet G, operated by the rope *e''*, and cam I, operated by the rope *e'*, in combination with the inclines C C, stops D, and the log-carriage E, for transferring the log from the log-deck onto the saw-mill carriage, substantially as described.

ESAU TARRANT.

Witnesses:

JOHN TARRANT,
GEORGE ARMS.