J. A. TRIPP & H. M. BALLOU.

Log-Turner.

No. 209,201. Patented Oct. 22, 1878.

Fig. 1.

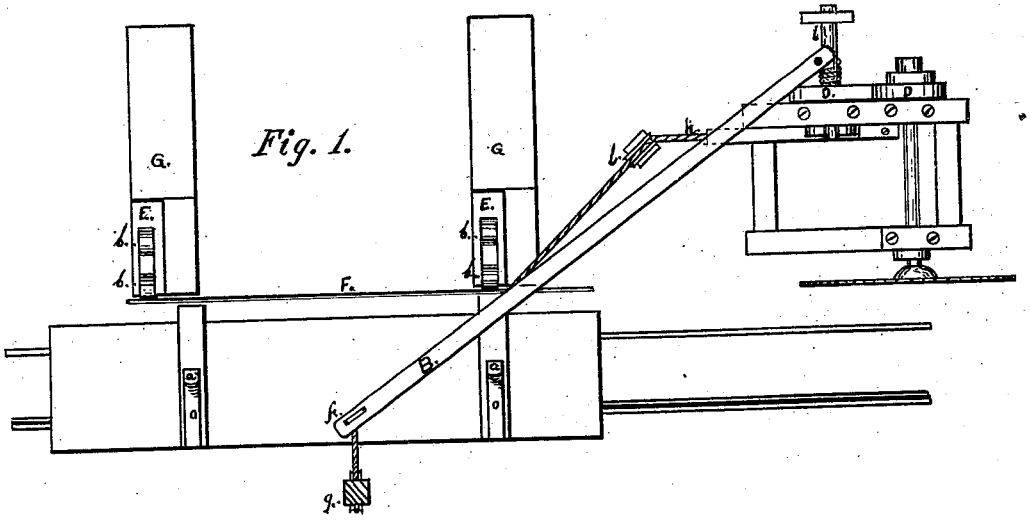


Fig. 2.

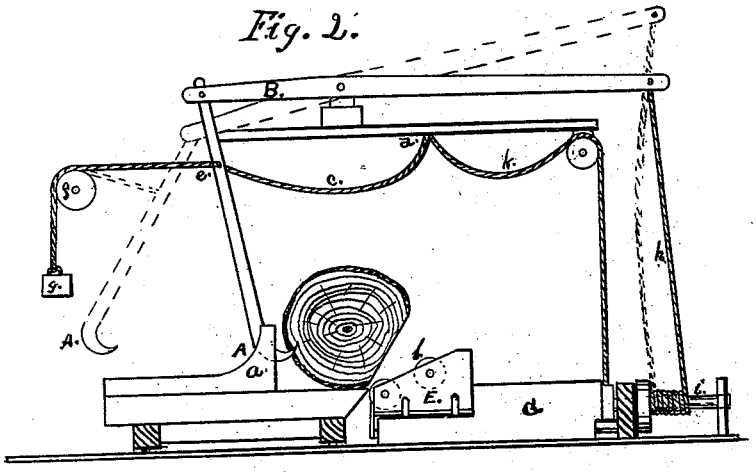


Fig. 3

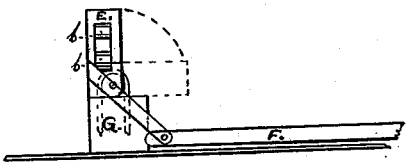
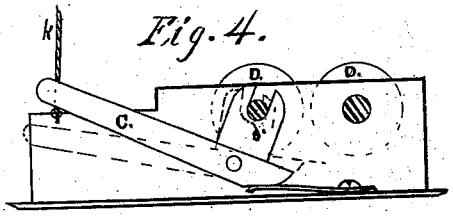


Fig. 4.



Witnesses;
G. A. Bishop
T. J. Lacey.

Inventors;
James A. Tripp
Hartwell M. Ballou
Per Atty J. C. Robie

UNITED STATES PATENT OFFICE.

JAMES A. TRIPP AND HARTWELL M. BALLOU, OF UNION CENTRE, N. Y.

IMPROVEMENT IN LOG-TURNERS.

Specification forming part of Letters Patent No. **209,201**, dated October 22, 1878; application filed May 1, 1878.

To all whom it may concern:

Be it known that we, JAMES A. TRIPP and HARTWELL M. BALLOU, of Union Centre, Broome county, and State of New York, have invented a new and useful Improvement in the Mode of Turning Logs for "Slabbing" in Circular-Saw Mills, of which the following is a specification, reference being had to the accompanying drawing.

Our invention consists of the employment of hinged roller-blocks provided with a connecting-rod for their simultaneous adjustment and anti-friction rollers, in combination with a suspended hook and lever connected with and operated by friction-rollers driven by the saw-shaft, in such a manner that said hook shall engage with the log on the side bearing against the knee of the head-block, thereby turning the log from said knee, instead of against it, and requiring but a quarter of a revolution to place it in position, instead of three-quarters, as by the ordinary method.

Figure 1 in the accompanying drawing is a plan view of a device embodying our invention, showing the connected roller-blocks in position. Fig. 2 is an end elevation, showing the process of turning the log. Fig. 3 is a sectional view, representing one of the roller-blocks and part of the connecting-rod. Fig. 4 is a section of the saw-frames, showing the movement of the lever for operating them by the dotted lines.

A is the hook, which has a shank extending to the end of the lever B, to which it is jointed. This joint is designed to be on a line with the knee *a* of the head-block on the log-carriage, so that as the log is elevated for turning by the hook it will gravitate against the knee *a* of the block, by means of the rollers *b b*, to its position.

The hook A is connected with the log by hand by means of the rope *c*, which is attached to a cross-piece over the work, also to the shank of the hook at *e*. From this connection said rope extends over a pulley, *f*. To the end of this rope is attached a weight, *g*, which, after the hook has been detached from the log, draws it back to the position indicated by the dotted lines, away from the movements of the log-carriage.

The fulcrum of the lever B is so placed as to insure the required power to turn a log of the largest size. This lever is operated by a rope or chain connection, *h*, which winds around the shaft *i* of the adjustable friction-roller, one of the journals of which is movable, and works in a slotted bearing, *d'*, in a projection upon the lever C, as shown by Fig. 4 in the drawing. This lever is also operated by hand by means of a cord, *k*, which is attached to the cross-piece over the work at *d*, passing over a pulley, *l*, and attached to the end of the lever. This cord is left slack between its attachment at *d* and its bearing on the pulley *l*, so that it may be readily grasped by the hand for the movement of the lever.

D D are the friction-rollers, one of which is attached to the end of the saw-shaft, and the other is arranged to engage with it, as before described.

E E are the roller-blocks, the faces of which incline toward the knee *a* of the head-block on the log-carriage. These inclined faces are provided with anti-friction rollers *b*, and are hinged to the skids G, and have a connection-rod, F, by which they are operated by one motion, thereby greatly facilitating the work, while by the ordinary method they are placed in position separately.

When we use our invention, the log is rolled over the skids G to its position against the knees *a* of the head-blocks. The slab is then sawed in the usual manner. The hook A is then attached to the opposite side of the log by means of the rope *c* with the hand. The roller-blocks are then turned up to their position and the cord *k* brought to the required tension to engage the friction-rollers D D, which by their movement draw down the end of the lever B, which, in connection with the hook, turns the sawed face of the log onto the rollers *b*, and as the log is now partially suspended, it settles into its position for sawing the next slab.

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

1. In combination with the roller-blocks E, the anti-friction rollers *b* and connection-rod F, as herein described.

2. The combination of the hinged blocks E E, carrying the anti-friction rollers *b b*, and the connection-rod F, with the pivoted lever B, provided at its outer end with the hook A, the rope *h*, friction-rollers D D, lever C, carrying an arm having the slotted bearing *d'*, the cord *c*, and weight *g*, substantially as shown and described, for the purpose set forth.

JAMES A. TRIPP.
HARTWELL M. BALLOU.

Witnesses:
PERRY P. ROGERS,
MOSES E. CONKLIN.