

(No Model.)

B. H. LAWTER.
SAW MILL SKID.

No. 464,137.

Patented Dec. 1, 1891.

FIG. 1.

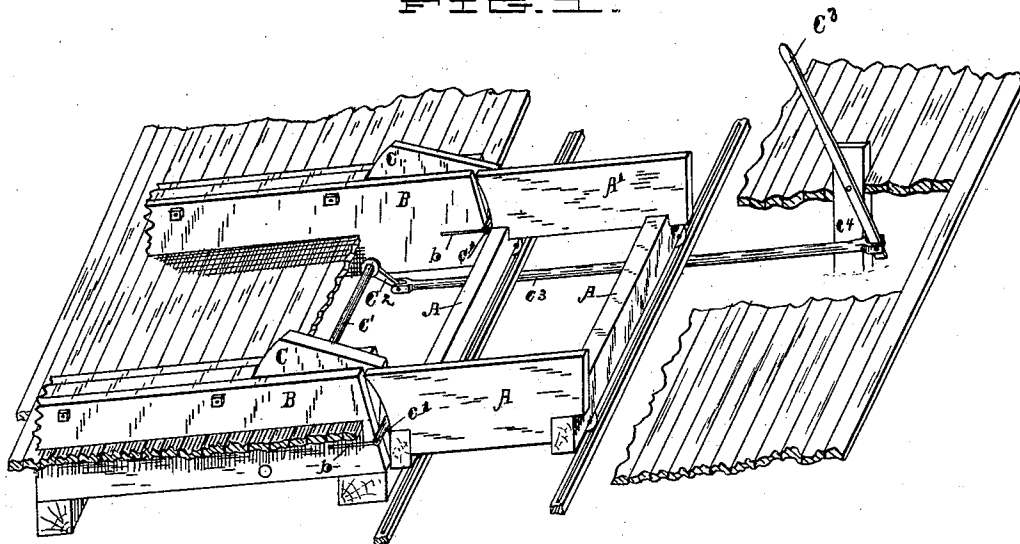


FIG. 2.

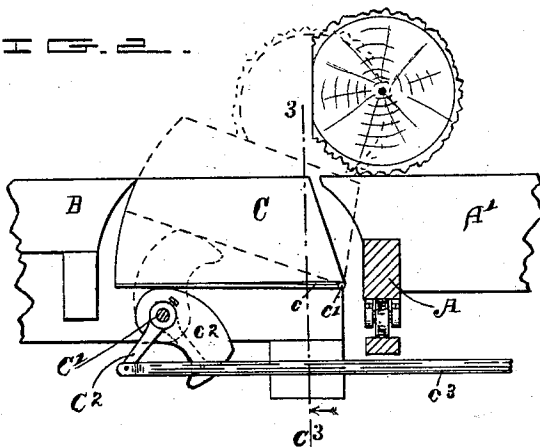
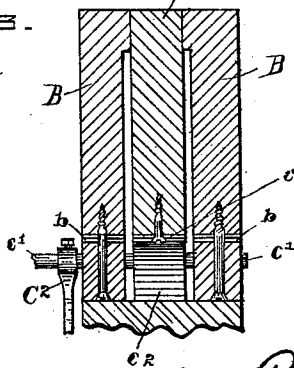


FIG. 3.



WITNESSES.

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BENJAMIN H. LAWTER, OF LADOGA, INDIANA.

SAW-MILL SKID.

SPECIFICATION forming part of Letters Patent No. 464,137, dated December 1, 1891.

Application filed April 21, 1891. Serial No. 389,795. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN H. LAWTER, a citizen of the United States, residing at Ladoga, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Saw-Mill Skids, of which the following is a specification.

My said invention relates to an improved construction and arrangement of turn-blocks for saw-mill skids whereby the handling of said logs and their delivery to the saw-mill carriage is rendered easy and convenient and much lifting is obviated, all as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a portion of the floor of a saw-mill, showing a carriage, that portion of the skids which is provided with my improved turn-blocks, and the operating mechanism; Fig. 2, a detail side elevation of one of the skids with one of the head-blocks of the saw-mill carriage in the position it occupies when the log is being turned, the different positions of the log and turn-block being indicated by whole and dotted lines, respectively, and the adjacent wall of the skid being removed to show the construction and arrangement of the turn-block and the operating mechanism therein; and Fig. 3, a cross-section on the dotted line 3 3 in Fig. 2.

In said drawings, the portions marked A represent the saw-mill carriage; B, the skids, and C my improved turn-blocks.

The saw-mill carriage A is or may be of any desired construction, provided with head-blocks A' A', on which are secured the saw-mill dogs, (not shown,) as usual, said head-blocks being shown in position adjacent to the skids. Said skids B are preferably made of three pieces bolted together, as shown, the central piece in each being of the same thickness as it is desired to make the turn-block and of a length only to reach a point which will allow a recess in the forward end of the skid between the side pieces adapted to receive said turn-block.

The turn-blocks C are formed with substantially straight and parallel top and lower edges, the front end being formed tapered and its rear end curved, so that it will fit closely

under the corner of the recess in any position, thus preventing any opening for the bark and dirt to pass through. At its front lower end it is hinged to the skid in which it is mounted, said hinge preferably consisting of a strap *c*, secured along the lower edge of the block, and a similar strap or part *b*, secured in each of the two side pieces of the skid, each of which straps is provided with an eye through which a suitable pintle *c'* is extended. The strap *c* on the block preferably extends the entire length thereof, thus providing a metal face for its lower edge. A rock-shaft *C'* extends from one skid to the other and through each skid beneath the rear end of the turn-block therein, and an elongated cam *c''* is rigidly mounted thereon between the two sides of each skid, which cam is formed with two faces adapted to support the outer end of the block firmly and steadily when resting upon either of them, one of said faces being so located as to support said block even with the top face of the skid and the other to support it in its raised position, as shown in Fig. 1 and by dotted lines in Fig. 2, each of said faces being formed concentrically with the center of the shaft, and the intermediate portion of the face of the cam being so formed and elongated that but a quarter-turn of the shaft is required to change the blocks from one position to the other, this arrangement securing that degree of speed in operation essential to secure the best results as well as sufficient power to support the logs and do the work easily. An arm *C''* is secured to said rock-shaft between the skids, preferably near one of them, and is connected by a connecting-rod *c'''* to an operating-lever *C'''*, pivoted to a post *c''''* at a position convenient for the operator.

The operation of my said invention is as follows: A log being mounted on the carriage in the position shown in Fig. 2 and a slab removed therefrom, it being then desired to turn said log so that its flat side will rest upon the head-blocks, it is released from the dogs, and the operator, by means of the lever *C'''* and the mechanism with which it is connected, raises the turn-blocks C from the position shown in whole lines to that shown in dotted lines in Fig. 2. The inner corners of said blocks by reason of the position of the hinges and

their formation are thus extended beyond the adjacent corners of the head-blocks and the top edges of the blocks are elevated above said corners, thus providing an unobstructed inclined way onto said head-blocks. The log is then turned, its flat face being thrown upon the inclined ways thus provided, the inclination of which is sufficient to cause said log when thus thrown upon them to slide into position on the head-blocks, where it can be readily secured by the dogs in position for further sawing. In the case of a square-cornered log the blocks operate to bear against the corner and lift that edge of the log, thus preventing the ends of the head-blocks from obstructing the way onto the carriage and allowing the logs to be turned easily and quickly. When logs are being rolled upon the skids, said turn-blocks are raised and form stops to prevent them from rolling too far, and the rear ends of said blocks being in line form a convenient means for lining up the logs before rolling them upon the carriage, which is accomplished by adjusting said logs so that their sides will come against the ends of both turn-blocks, as will be readily understood. The inner ends of said turn-blocks being formed inclined and the hinged lower corner brought nearer the carriage than the upper corner when said blocks are turned up, said upper corners are thrown out to a position beyond the corners of the head-blocks, as before stated, thus protecting the corners of the head-blocks and also preventing them from obstructing the free passage of the logs from the skids thereto. The adjacent faces of the side pieces of each skid are preferably cut out a short distance below the upper edge to afford a free passage or space between said side pieces and the turn-block to reduce the friction in operation and also permit any sawdust or pieces of bark which may become lodged between the operating-faces to drop through and escape with-

out impeding or interfering with the operation of the device.

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

1. The combination, with the skids for delivering logs to a saw-mill carriage, of turn-blocks mounted in recesses in the front ends of said skids, the rear ends of which are formed curved to fit closely in said recesses and the lower front corner of which is hinged in said skids by means of hinges composed of the straps *c*, secured to the lower edge of the turn-block, and the straps *b*, secured in the parts of said skid on each side thereof, and the pin-tle *c'*, extending through suitable eyes formed in said straps, the rock-shaft, cams on said rock-shaft arranged to support the rear ends of said turn-blocks in and operate them to different positions, and means for operating said rock-shaft, substantially as set forth.

2. The combination, with the skids for delivering logs to a saw-mill carriage, of turn-blocks mounted in recesses formed in their front ends, said turn-blocks being hinged at their lower front corners on a line under and beyond the outer corner of the head-blocks of the carriage, the front end of said turn-block being formed tapered back from said hinge, whereby it is adapted to clear said corners of the head-blocks of the carriage in passing, and mechanism for raising the rear ends of said turn-blocks, whereby their upper faces are raised above and serve to guard said head-block corners, substantially as described, and for the purpose as specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 2d day of April, A. D. 1891.

BENJAMIN H. LAWTER. [L. S.]

Witnesses:

E. W. BRADFORD,
FRANK W. WOOD.