

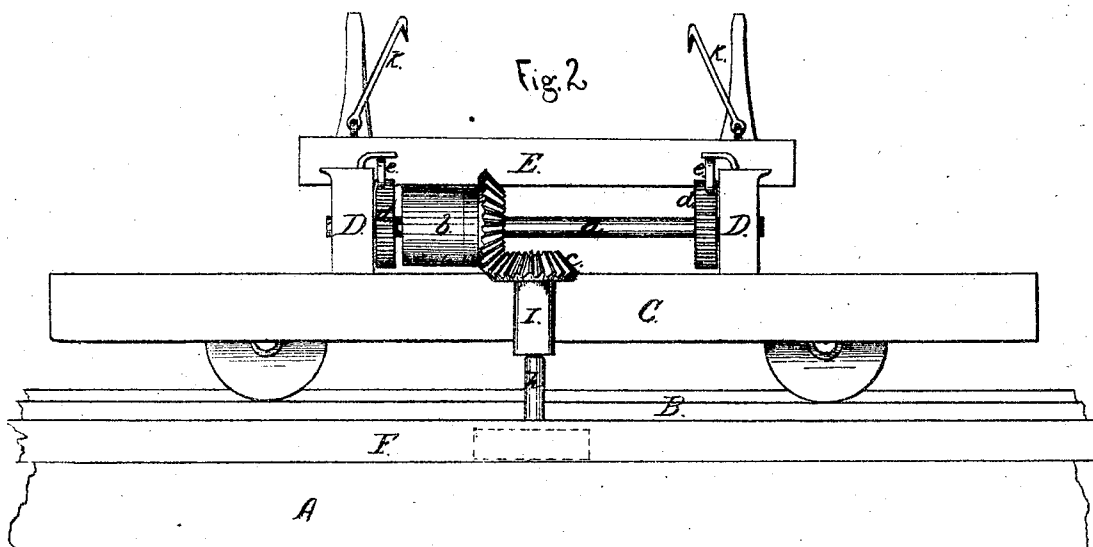
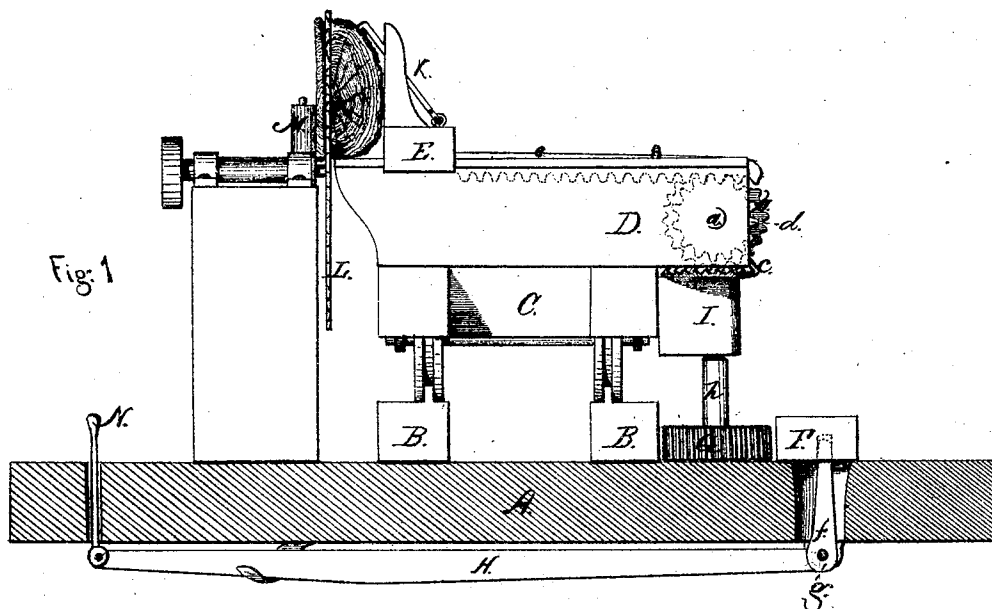
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LEWIS C. PATTEE.

Improvement in Circular Saw Mills.

No. 121,466.

Patented Dec. 5, 1871.



Witnesses:

Edwards & Osborn
Robert H. Manners.

Inventor:

Lewis C. Pattee,
per C. A. Durquin Atty

UNITED STATES PATENT OFFICE.

LEWIS C. PATTEE, OF LEBANON, NEW HAMPSHIRE.

IMPROVEMENT IN CIRCULAR-SAW MILLS.

Specification forming part of Letters Patent No. 121,466, dated December 5, 1871.

To all whom it may concern:

Be it known that I, LEWIS C. PATTEE, of Lebanon, in the county of Grafton and State of New Hampshire, have invented certain Improvements in Circular-Saw Mills, of which the following is a specification:

My invention relates to circular-saw mills in which the log is fed to the saw upon a traveling carriage; and my invention consists in a novel combination and arrangement of parts, whereby the log is automatically fed up to and away from the saw, and the setting-block is automatically moved back to receive the log upon the carriage-blocks. It has for its object to dispense with the ordinary setting-gear in sawing boards, planks, &c., usually employed in circular-saw mills, and also to greatly facilitate the labor of running the mill.

Figure 1 is an end view of the carriage and mechanism, with the floor of the mill in section to show the arrangement of the lever beneath it. Fig. 2 is a side elevation.

A represents the bed or the flooring of the mill, and B B the track laid on it for the carriage C, which is supported and carried upon the flanged wheels. D D are the blocks upon which the log rests. They have a setting-block, E, which is moved back and forth by the racks *e e* secured to the block at one end, and gearing with and moved by the toothed wheels *d d* secured upon the horizontal shaft *a*, which has bearings in the ends of the stationary blocks D D of the carriage. F is a rail placed upon the floor A parallel with the track, and pivoted at one end to the floor so that it may be moved toward and away from the rail nearest to it. This is accomplished by operating the lever H pivoted at *g* beneath the floor, and moving the upright arm *f* working in a recess in the rail F. The lever H is operated by the treadle N projecting through a hole in the floor. The horizontal shaft *a* has a bevel-gear secured upon it, whose teeth mesh with a like gear secured to the vertical shaft *h* held in the bracket I upon the carriage. The lower end of this vertical shaft is provided with a friction-wheel, G, and when the carriage is moved back or forth upon the track a rotary motion is given to it by pressing the movable rail F against this wheel with the lever H, and by it the bevel-gears *b c* will be operated to turn the wheels *d d*, which move the racks *e e*. This causes the setting-block

E to be drawn away from the front of the carriage or moved up to it according to the direction in which the carriage moves and the wheel G revolves. L represents the saw, and M a vertical roller adjustable and located in front of the saw. The feed for moving the carriage back and forth is the same as is employed in ordinary circular-saw mills and forms no part of this invention.

The operation of my improvement is as follows: The log is placed upon the carriage and held by the dogs K K, and its position determined for the slab by causing the wheel G to turn, as the carriage is running forward, (which the operator effects by pressing upon the treadle N,) and move the setting-block with its log toward the line of motion of the saw; by running the setting-block a short distance the log can be set in the required position for the first cuts or slabs. After the log is squared the vertical roller M, which is adjustable toward and away from the saw, is set in the desired position from the saw to govern the thickness of the plank or board to be cut, and the log is then brought up against the roller for each cut. As soon as the log is brought up to the roller the rail F is released from contact with the friction-wheel G and the motion of the gears is arrested. The setting of the log is thus made automatic and placed under the control of the feeder; thus greatly facilitating the operation of sawing by a great saving in time and labor.

Another feature of my invention, that of automatically turning the log, is accomplished as follows: The log resting upon the carriage-blocks D D and held by the dogs K K, which are secured to the setting-block E, will be drawn over as the setting-block is moved back by the racks *e e*, and the use of cant-hooks and levers to turn the log will be materially dispensed with. Another advantage resulting from the use of my invention is that the log is moved away from the saw as soon as the cut is completed, so that the saw is out of contact with it when the carriage is moving back, and any vibration of the saw will not act to cut the log as it moves backward. And still another advantage is that after the log is sawed the operator, by pressing his foot upon the treadle while the carriage is moving back, can move the setting-block back any distance required to receive another log.

I believe my invention to be one of the most

valuable ever made in circular-saw mills. I have thoroughly tested it and find it works successfully, and the improved mode of setting the log will enable fully fifteen per cent. more lumber to be cut in a day by its use than can be done by any mill I have ever seen.

I am aware of the patents of J. Kurtzman, dated June 10, 1856, and Dennis Lane, dated June 30, 1868, for improvements in saw-mills; and I disclaim said inventions.

Having thus fully described my invention, I claim—

1. Giving the movement to the log upon the carriage by the movable rail F, operated by the

treadle H, the friction-wheel G, the shaft *h*, and pinion *c*, the shaft *a* and pinions *b d d*, the racks *e e* operating the standards E, and the dogs K, all constructed and operating substantially as described, and for the purpose specified.

2. The combination, with a movable rail, friction-wheel, and setting-blocks, constructed and operating as described, of the vertical roller M for arresting and governing the movement of the log as it is fed to the saw, substantially as described and specified.

Witnesses: LEWIS C. PATTEE.

E. J. DURANT,

J. M. PERKINS.

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