P. H. Lawler,

Sawing Shingles.

No. 76,782. Patented Apr. 14, 1868.

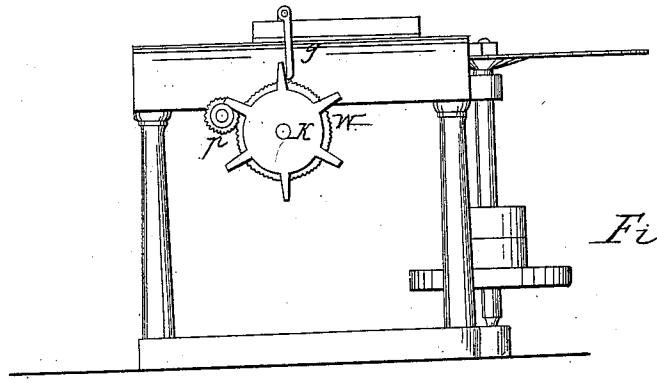


Fig. 1.

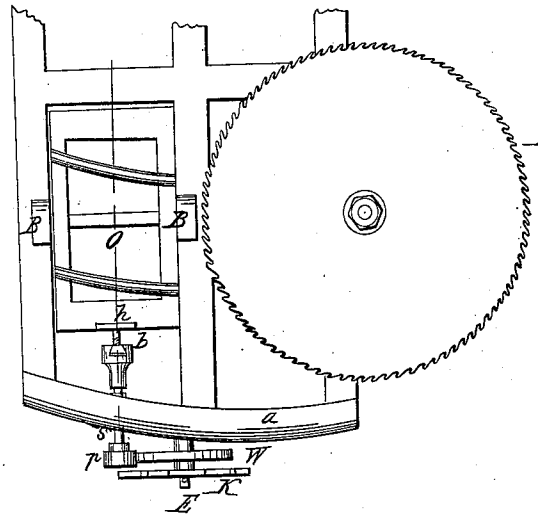
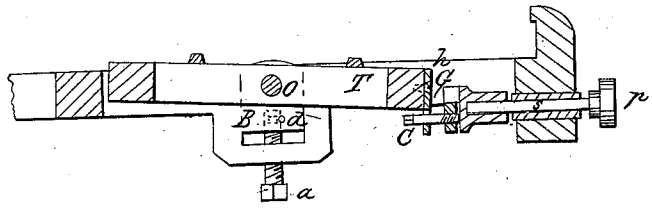


Fig. 2.

Fig. 3.



Witnesses:
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United States Patent Office.

PATRICK H. LAWLER, OF ROCHESTER, NEW YORK.

Letters Patent No. 76,782, *dated April* 14, 1868.

IMPROVEMENT IN SHINGLE-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, PATRICK H. LAWLER, of the city of Rochester, in the county of Monroe, in the State of New York, have invented an Improved Device for Operating the Table in Shingle-Machines, so as to obtain the taper on the shingle.

The nature of this invention consists in operating the table by means of a latch attached to the swing-carriage, operating on a star-wheel in connection with a spur-wheel and pinion and crank working in a slotted piece of iron bolted to the table to give it proper throw, and to force it up and down if it gets fastened by saw-dust or splinters; and I hereby declare the following to be a full and accurate description of the same, reference being had to the accompanying drawings, making part of the specifications, and to the letters of reference marked thereon, same letters referring to like parts in all the figures.

Figure 1 is an end view of a shingle-machine, with part of improvement shown.

Figure 2 is a top view of the same, showing the top view of the same.

Figure 3 is a sectional view through the shaft S, at the red line shown in fig. 2.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my shingle-machine in any of the known forms where a horizontal saw is used, and on the carriage or swing for holding the block, I put a pawl, I, arranged in such a manner that it will operate the six-armed wheel K, on the shaft E, as it moves back from the saw after cutting off the shingle from the block. I also put on the shaft E, a gear-wheel, W, which meshes in the pinion P on the shaft S, thereby giving motion to said shaft S. As it is necessary to give proper throw to the table, so as to make the butts and points of the shingle the right thickness, I make the pinion P one-third the size of the wheel W, so that as the wheel W is moved one-sixth around, the shaft S is moved one-half.

The shaft S runs in a sleeve, and on the inner end has a head, having a slot across its face for a pin, C, (forming with said head a crank,) that is held at any required position by a jamb-nut, to alter the length of the crank to give any required throw to the table, thereby giving a suitable taper to the shingle. The said pin works in a slotted piece of iron, N, bolted on the table T, which is made adjustable by a slot shown in fig. 3, in which the screw G passes, so that it can be altered to make different thickness of shingles.

The operation of this device is such that if the table gets fastened by saw-dust or splinters, it is necessary to have the crank work in a slot in the piece of iron, N, fastened to the table, so that it will force the table down as well as up. When a cam is used, it only works against the end of the piece N. This will raise up the table, but will not force it down if it gets obstructed; and in using a crank for this purpose, I find it necessary to put in the gear-wheel W and pinion P so as to turn the crank half around, to give the proper throw to the table.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the pawl I, star-wheel K, spur-wheel W, pinion P, and its shaft S, in combination with the crank, C, or its equivalent, and slotted piece N, operating substantially for the purposes and in the manner herein described.

P. H. LAWLER.

Witnesses:

JAS. LORENZO GAGE,

OWEN REDMOND.