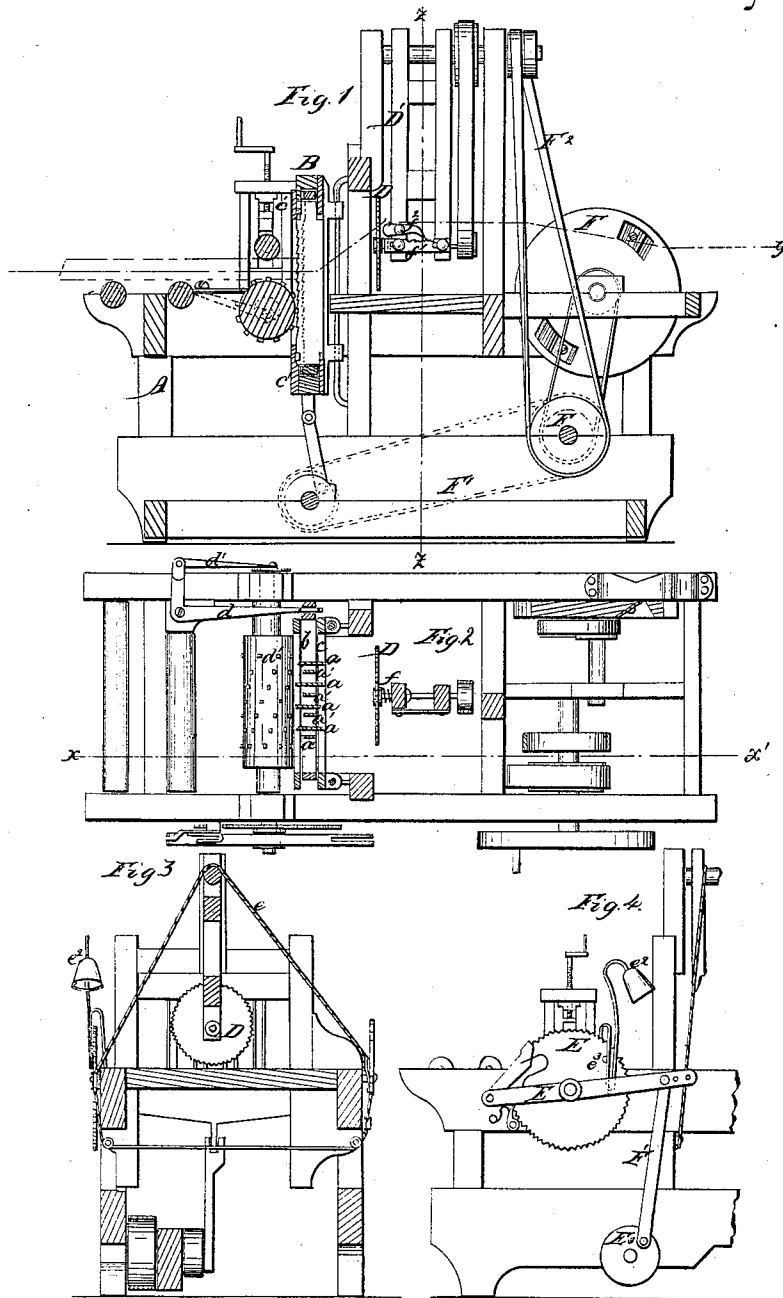


L. C. Robinson,
Sawing Shingles,

No 81,295,

Patented Aug. 18, 1868.



Witnesses
W. C. O. Lockett
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L. C. ROBINSON, OF SHEPARDSVILLE, MICHIGAN.

Letters Patent No. 81,295, dated August 18, 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, L. C. ROBINSON, of Shepardsville, in the county of Clinton, and State of Michigan, have invented a new and improved Machine for Sawing Shingles or Heading; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention relates to improvements in machines for sawing shingles or heading, or other similar articles, whereby it is designed to provide a more simple and effective machine that will either saw them in a straight or tapered form, cut off the ends, and plane the edges, than any now in use; and it consists in the combinations and arrangements of the parts whereby the same is effected, as will be more fully described on reference to the accompanying drawings, wherein—

Figure 1 represents a longitudinal vertical sectional elevation, on the line *x x* of fig. 2.

Figure 2, a horizontal section on the line *y y* of fig. 1.

Figure 3, a transverse section, on the line *z z* of fig. 1.

Figure 4 represents a side view of the feeding-apparatus and alarm-bell.

Similar letters of reference indicate corresponding parts.

A represents the frame of the machine, and B a saw-gate, provided with two sashes and two sets of saws, the set marked *d'* being connected to a sash, *b*, which is movable within the sash C; the set marked *a'* are pivoted at their lower ends to the sliding sash, *b*, and hinged to the same at their upper ends, so that they may be turned to agree with the angle which they are required to make with the rigidly-fixed saws of the other sash, C.

The laterally-moving sash *b* is operated in its said lateral movement by the bell-crank, *d*, connecting-rod, *d'*, and a crank-pin on the feed-roller, *d''*, the end of the lever *d* taking into a long slot in the side of the sash *b*. As the extent of the lateral movement of the sash *b* is effected by a half revolution of the crank on the feed-roll, *d''*, the latter must be of sufficient size to feed the length of a bolt, also at a half revolution, the angle of the set of saws in the movable sash being reversed by any suitable mechanism after the passage of each bolt.

D represents a butting-saw, suspended in the swinging frame, D', which is brought into operation by the attendant by a hand-lever, *e*, (see fig. 3,) and cord, *e'*, the proper time for which is indicated by a stroke of a bell, *e''*, which is actuated by pins *e'''* on the ratchet-feed wheel, as the bolt, or partially-formed shingles, are also moving against the face of the saw D. While it is doing its work, provision is made for it to slide in its bearings against the coiled spring, as when the saw, D, after cutting off the ends of the shingles or staves, and being moved back again to its normal position, would be forced by the spring against the end of the last shingle or shingles on that side, so that the teeth of the saw would considerably injure them if left to the action of the said spring. The mandrel of the saw is provided with a sliding ratchet-bar, *g'*, and pawl, *f''*, the bar being connected to the mandrel by a crotch, and supported on the frame, D', so that it may slide thereon, by which the action of the spring is restrained until the saw has swung back entirely beyond the shingles, when the pawl may be raised by a stud, properly arranged, or by the attendant, to allow the saw to resume its right position for action on the next bolt or set of shingles.

The feed-wheel E is actuated by pawl-lever, E', connecting rod E² and crank-shaft.

E³ F⁴ represent an edging-device of ordinary construction, conveniently arranged for an attendant to take the shingles from the table in front of the cut-off saw and apply them to it for edging.

F represents the main driving-shaft, from which motion is communicated to the several parts by the belts F¹, F², and F³.

When it is desired to saw heading, or any other articles not tapered, the movable sash may be readily taken out of the sash C, by detaching the front, top, and bottom plates C'. The machine may also be used for sawing longer stuff, by applying an extra bench with rollers in front of the feeding-rollers.

I am aware of the patent granted to Groves and Bogart, November-29, 1853, for improvements in shingle-machines, but this patent I disclaim, as it contains none of my improvements.

I claim as new, and desire to secure by Letters Patent—

1. The combination, with the sash C, of the laterally-moving sash, *b*, having its saws hinged, as described, and operated by the feed-roller, *d*², through the medium of the bell-crank *d* and connecting rod, *d*¹, substantially as and for the purpose specified.
2. The cut-off saw, D, in combination with the sliding mandrel, spring *f*, ratchet-bar *f*¹, and pawl *f*², operating in the manner described, with relation to the hinged saws *a* *a'*, as and for the purpose specified.

L. C. ROBINSON.

Witnesses:

ORREN GATES,
WM. SHEPARD.