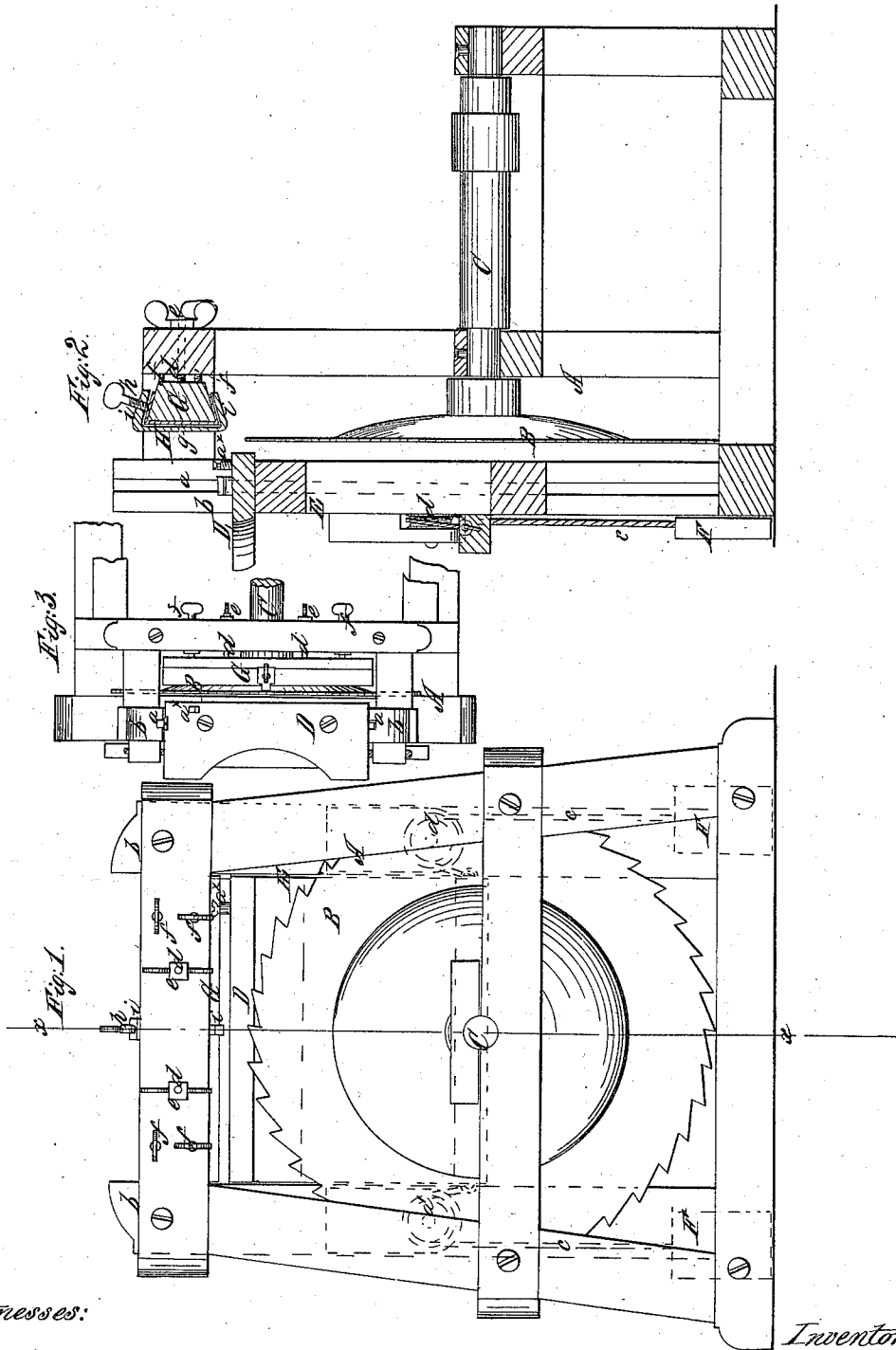


H. C. CROWELL.
SHINGLE MACHINE.

No. 42,353.

Patented Apr. 19, 1864



Witnesses:

Geo. Coombs
Henry Morris

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UNITED STATES PATENT OFFICE.

H. C. CROWELL, OF MORGAN, OHIO.

IMPROVEMENT IN SHINGLE-MACHINES.

Specification forming part of Letters Patent No. 42,353, dated April 19, 1861.

To all whom it may concern:

Be it known that I, H. C. CROWELL, of Morgan, in the county of Ashtabula and State of Ohio, have invented a new and Improved Machine for Sawing Shingles and other Articles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a back view of my invention; Fig. 2, a side sectional view of the same, taken in the line *x x*, Fig. 1; Fig. 3, a plan or top view of the main portion of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved machine for sawing shingles, heading for casks, and other similar articles; and it consists in the employment or use of a vertical circular saw, in connection with a rising and falling bed and a gage or guide, all arranged in such a manner that the bolt may be held in the hand and presented or fed to the saw in such a manner as to admit of the operator cutting up the bolt to the best advantage.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a framing, which may be constructed in any proper manner to support the working parts of the machine, and B is a circular saw, which is placed on a horizontal shaft, C, in the framing A.

D represents a rising and falling bed, which is secured to the upper part of a rectangular frame, E, the sides of which are provided with lips or projections to work in grooves *a a* in uprights *b b'* of the framing. The frame E, however, may be arranged in any suitable way between vertical guides, in order to admit of it rising and falling freely. The frame E has weights F F attached to it—one at each side—by means of cords *c c*, which pass over pulleys *d d* in the framing, said weights having a tendency to keep the frame E in an elevated state. The frame E works up and down parallelly with the side of the saw B, and said frame, when fully ele-

vated, has its upper surface a trifle above the upper edge of the saw, as shown in Fig. 2.

In the bed D, at one end of it, there is a pin, screw, or other projection, *a'*, to serve as a stop to prevent the bolt from slipping or sliding laterally thereon. (See Figs. 2 and 3.)

G represents a gage, which is secured to the upper part of the framing A by screw-rods *d d*, having thumb-nuts *e e* upon them. This gage is parallel with the saw B, is a short distance above it, and may be adjusted nearer to or farther from the saw by means of set-screws *f*. The gage may be protected at its face side by a short metal plate, *g*, and on the gage G a vertical bar, H, is placed and secured by a set-screw, *h*, the bar H extending down over the face of the gage, and having its ends bent, as shown at *i*, so that they may lap over the upper and lower edges of the gage, the set-screw *h* passing through the upper bent end, *i*, of the bar. (See Fig. 2.)

The operation is as follows: The saw B is driven or rotated by any convenient power, and the bolt from which the shingles or other articles are to be cut is placed on the bed D and pressed down by the hand and foot of the operator, the bed D descending under the pressure so that the bolt will be fed to the saw. The gage G determines the thickness of the shingle or article to be cut, while the bar H gives the taper to the shingle. In sawing articles of an equal thickness throughout the bar H is removed from the gage G and the bolt placed parallelly against the gage G.

After each cut of the saw the bed and bolt are allowed to rise, and when the former reaches its culminating or highest point the bolt is again adjusted in a proper relative position with the saw and again pressed down for a succeeding cut.

The bolt, in consequence of being held by the hand, is rendered capable of being adjusted in a certain degree to the saw, so that knots and imperfections may in many cases be avoided, and the saw allowed to cut in accordance with the grain of the wood—an advantage not attained in those sawing-ma-