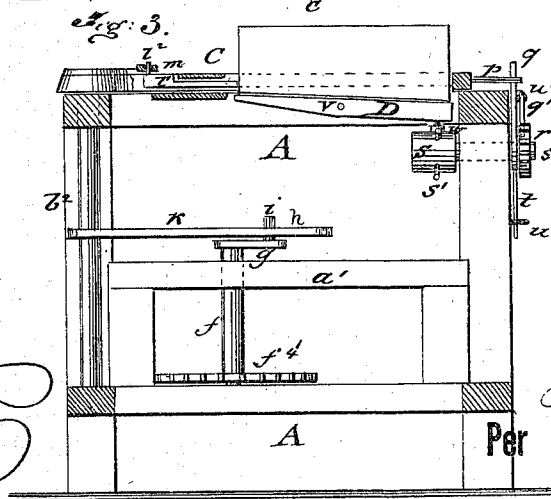
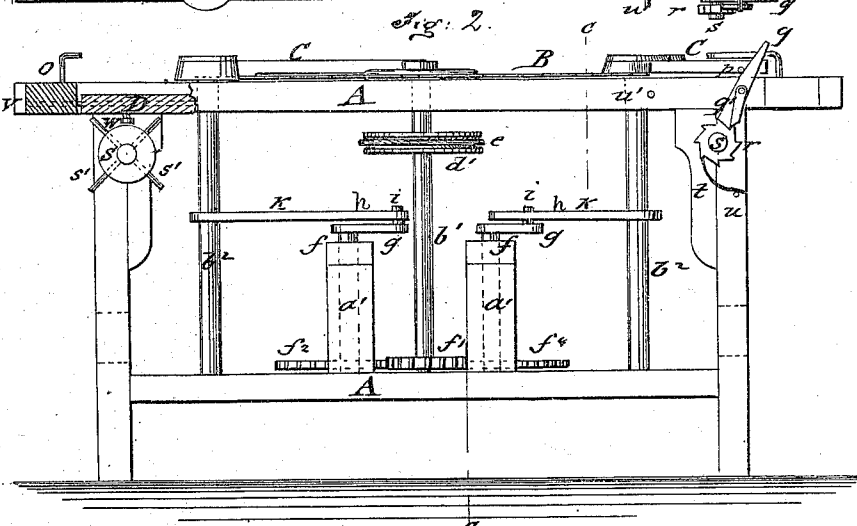
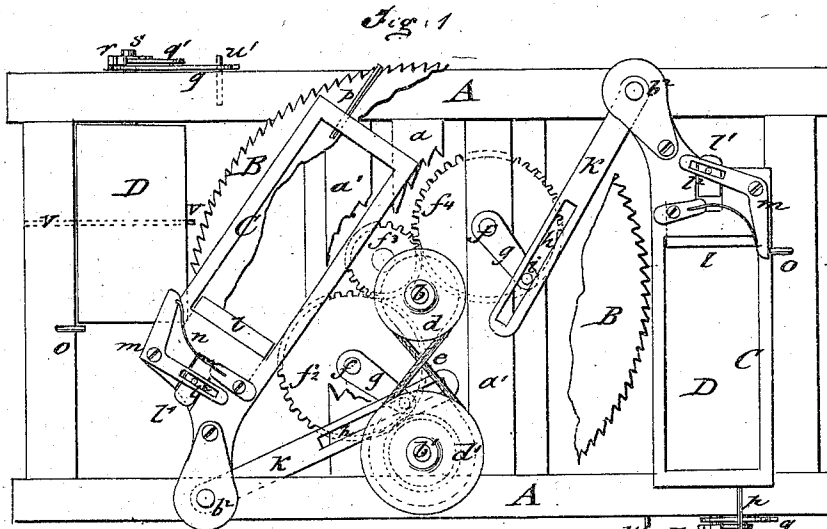


A. ANDERSON.
Shingle-Machines.

No. 142,138.

Patented August 26, 1873.



Witnesses:

Chas. Nida
Melquisek

Inventor:

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UNITED STATES PATENT OFFICE.

ALANSON ANDERSON, OF CHADWICK'S MILLS, NEW YORK.

IMPROVEMENT IN SHINGLE-MACHINES.

Specification forming part of Letters Patent No. **142,138**, dated August 26, 1873; application filed July 5, 1873.

To all whom it may concern:

Be it known that I, ALANSON ANDERSON, of Chadwick's Mills, in the county of Oneida and State of New York, have invented a new and Improved Shingle-Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved shingle-machine; Fig. 2, a side elevation of the same, partly in section; and Fig. 3, a vertical transverse section on the line *c c*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of my invention is to construct a machine for sawing shingles which, by the simplicity of its construction, easy and accurate working of its parts, overcomes some of the difficulties hitherto experienced in this class of machines. My invention consists of two reciprocating block-holding frames, which are alternately moved against a horizontal circular saw by means of the vertical saw-shaft in gear-connection with slotted lever-arms. The blocks are properly set in their frames by tilting platforms, as in other machines of this class, the same being operated by a pawl-and-ratchet mechanism, in connection with a bent lever and spring arrangement for engaging and disengaging the blocks.

In the drawing, A represents the frame of the shingle-machine, of oblong shape and suitable dimensions. It consists of two symmetrical parts, which carry on the central lateral pieces *a* the vertical saw-shaft *b* and the horizontal circular saw B. The saw-shaft *b* is connected in suitable manner to the driving-power, and transmits its motion, by pulley *d* and crossed belt *e*, to pulley *d'* of shaft *b*¹, which, by its cog-wheel *f*¹ gearing into wheel *f*² of crank-shaft *f*, imparts motion to the first, and by intermediate spur-wheels *f*³ and *f*⁴ to the second, crank-shaft *f*. The crank-shafts *f* turn in bearings of lateral pieces *a'*. The projecting pins *i* of cranks *g* move in slots *h* of arms *k*, imparting reciprocating motion to the latter. The cranks *g* are keyed fast on vertical shafts *b*², to the upper end of which are rigidly connected the block-holding frames C. The frame C, of rectangular shape, corresponding to the size of the shingles, holds the block of wood from which the same are

cut. It is provided on the narrow side toward shaft *b* with an adjustable slide-piece, *l*, which moves in a suitable recess of frame C. Piece *l* has a vertical guide-arm, *l*¹, which, by a projecting pin, *l*², moving in the slot of bent lever *m*, slides forward and backward, releasing and engaging the shingle-block. Bent lever *m* is pivoted to frame C, a strong band-spring, *n*, acting on its free arm, pressing thereby the slide-piece *l* forward and holding firmly the block. A projecting lug, *o*, of frame A acts also against the arm of bent lever *m* when the frame C approaches that part of frame A, and presses the lever *m*, and with it piece *l*, back, releasing the block as long as the action of lug *o* on lever *l* continues. A horizontal pin, *p*, applied at the outer shorter side of frame C projects beyond main frame A, and engages an arm, *q*, with pawl *q'* attached thereto, which is placed loosely on a short horizontal shaft, S. Pawl *q'* gears into a ratchet-wheel, *r*, which is keyed to shaft S in front of arm *q*. A spring extension, *t*, of arm *q*, resting on stop *u* of frame A, forces arm *q* back to stop *u'*, after pin *p* of frame C releases the same, and causes pawl *q'* to catch into another tooth of ratchet *r*. The inner roller-shaped part of shaft S is provided with half the number of radially-projecting pins or spurs S' as there are ratchet-teeth, which bear with every second tooth against the tilting table or platform D, pivoted by rod *v* to frame A, thereby raising the same. An adjustable pin or lug, *w*, applied at the lower side of the tilting table D, rests on extension of shaft S, and gives the required degree of inclination to tilting table D, alternating with spurs S'. The motion of frame C and its slotted arm *k* is so regulated that the shingle-block is released exactly above table D, taking its inclination from it, being then, on the approach of the frame C toward saw B, taken up again and fed to the saw. The ratchet mechanism and shaft S alternately raise and lower that end of table D, and produce thereby the inclination of the sides of the shingle. The reciprocating motion of frames C is so arranged that the blocks are fed alternately to saw B, and the required change of the position of the blocks on the tilting table is produced in an easy, simple, and exact manner.

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

1. In a shingle-sawing machine, the combination, with the block-holding frames C, pivoted to the frame at b^2 , and rigidly connected with the slotted levers k , of the crank-shafts $f f g g$, and the mechanism for rotating said shafts, all constructed and arranged as shown and described, whereby a vibratory movement is imparted to the said frames alternately, as set forth.

2. The combination of the slide-piece l , provided with pin l^2 , and slotted elbow-lever m , with the pivoted horizontally-vibrating frame C, the fixed lug O, and the tilting platform D, all constructed and arranged as shown and described.

ALANSON ANDERSON.

Witnesses:

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