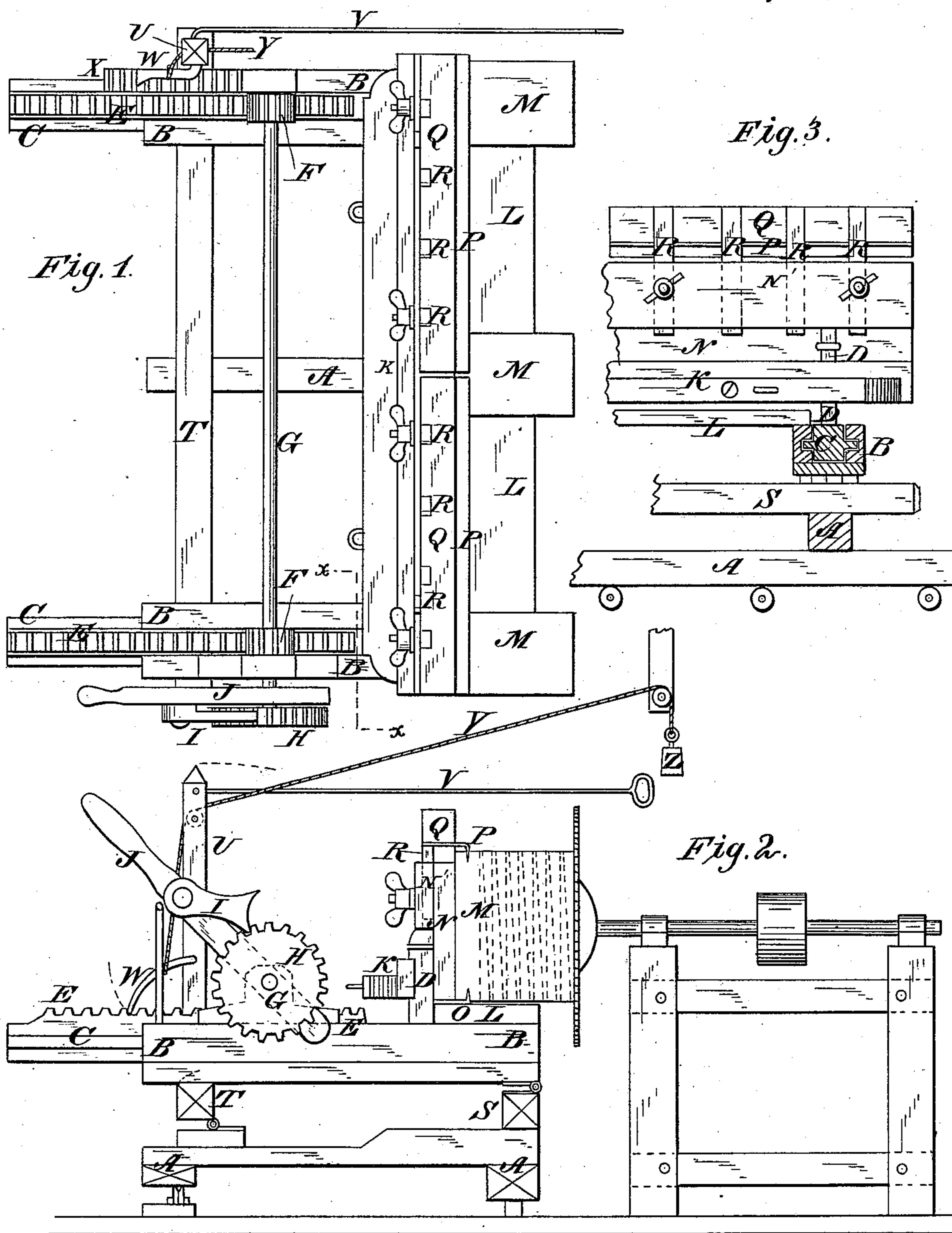


(No Model.)

E. C. SCHERMERHORN.
Shingle Machine.

No. 230,070.

Patented July 13, 1880.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ELIAS C. SCHERMERHORN, OF ALDER CREEK, NEW YORK.

SHINGLE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 230,070, dated July 13, 1880.

Application filed April 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, ELIAS CURRY SCHERMERHORN, of Alder Creek, in the county of Oneida and State of New York, have invented
5 a new and useful Improvement in Shingle-Machines, of which the following is a specification.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation. Fig. 3 is a sectional
10 elevation taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish machines for sawing shingles from blocks which
15 shall be so constructed that the shingles may be sawed with their butts up and down alternately, so that the blocks will be kept square and the length of the shingles will always be in line with the grain of the wood.

20 The invention consists in constructing a shingle-machine of a saw-mill carriage having two bars interposed between its lower and upper parts, the forward bar being stationary and having the upper part of the carriage hinged
25 to it, and the rear bar being movable and hinged to the lower part of the carriage, the platform to carry the blocks, the board for supporting the blocks, the dogs for holding the blocks, the clamp for locking the dogs, the lever and rod for operating the hinged bar, and
30 the rack-bar, pawl, and cord for holding and releasing the lever, as will be hereinafter fully described.

A represents the lower part of a saw-mill
35 carriage, which is designed to move longitudinally upon ways in the usual manner. B are the cross-timbers of the upper part of the carriage, which timbers have T-grooves formed in them to receive the bars C. The bars C carry
40 the knees D, and have gear-teeth E formed upon or attached to the upper side of their rear parts, into which teeth mesh the teeth of small gear-wheels F, attached to a shaft, G. The
45 shaft G works in bearings attached to the cross-timbers B, and to one of its ends is attached a ratchet-wheel, H, with the teeth of which engages the pawl I, pivoted to the lever J. The lever J is pivoted to and rides upon the shaft G.

50 The pawl I is made double, as shown in Fig. 2, so that it may be used to move the bars C forward and back, as required. The knees D are connected by bars K, so that the said knees

D must move together. To the upper side of the forward ends of the cross-timbers B is attached a board or plate, L, for the blocks M, 55 from which the shingles are to be sawed, to rest upon. To the forward side of the knees D is attached a board or plate, N, for the rear sides of the blocks M to rest against. The blocks M are secured in place by the clamping-plates 60 or dogs O P.

The plate O is attached to the lower edge of the board N, projects in front of the said board N, and has its forward edge bent upward to enter the lower side of the blocks M. 65 The plate P is similar to the plate O, and is attached to the lower side of the bar Q, which has a number of downwardly-projecting arms, R, attached to it, which enter holes in the bar N', attached to the board N, and are secured 70 by hand-screws or other suitable means, so as to hold the dog or plate P securely in place.

The plate P and bar Q may be made in two or more parts, if desired, for convenience in adjusting and securing the blocks M. 75

S T are two bars interposed between the lower part, A, of the carriage and the cross-timbers B. The forward bar, S, is rigidly attached to the lower part, A, of the carriage, and to the forward part of its upper side are 80 hinged the forward ends of the cross-timbers B. The rear bar, T, is hinged at the forward part of its lower side to the lower part, A, of the carriage, and upon its upper side rest the rear parts of the cross-timbers B. With this construction, 85 by turning the bar T upon its hinges the rear ends of the cross-timbers B will be raised and lowered, which movement inclines the blocks M forward and back so much that one shingle will be sawed with its thickest end or butt up- 90 ward and the next shingle with its thickest end or butt downward, thus keeping the length of the shingles always in line with the grain of the wood while giving them the proper taper.

To one end of the hinged bar T is rigidly at- 95 tached the lower end of an upright bar or lever, U, to the upper end of which is attached a rod, V. The free end of the rod V extends into such a position that it can be conveniently reached and operated by the sawyer to 100 adjust the blocks M as the saw completes a cut.

The lever U and consequently the blocks M are held in position, when adjusted, by a pawl, W, which is pivoted to the said lever U, and

engages with rack-teeth X, formed upon or attached to one of the cross-timbers B.

To the pawl W is attached the end of a cord, Y, which cord passes through a guide-hole 5 formed in or over a guide-pulley pivoted to the upper part of the lever U, and over a guide-pulley pivoted to some suitable support in such a position that the free end of the said cord may be conveniently grasped by the sawyer 10 to raise the pawl W when the lever U is to be pushed back. To the free end of the cord Y is attached a small weight, Z, of sufficient gravity to keep the said cord Y taut and ready to be operated.

I have shown and described the improvement as applied to sawing shingles, but do not limit myself to that use, as it is equally applicable to sawing clapboards and other lumber sawed thinner at one edge than at the other.

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

1. In a shingle-machine, the combination, with the cross-timbers B, the adjusting-bars C, 5 and the knees D, forming the upper part of a saw-mill carriage, of the platform L to receive the blocks, the supporting-board N to receive the dogs, the dogs O P for holding the blocks, and the clamp Q R for carrying the upper dog, 10 whereby the blocks M are held and moved up to the saw, as described.

2. In a shingle-machine, the combination, with the lower part, A, of a saw-mill carriage,

and with the hinged cross-timbers B that carry the adjusting-bars C and knees D, forming the 35 upper part of the carriage, of the stationary bar S, attached to the front of lower part, A, the hinged bar T, supporting the rear of the bars B and resting upon the rear of part A, and a mechanism for turning the hinged bar T, as set 40 forth, whereby the blocks M can be so adjusted that the thick ends of the shingles will be cut alternately from the upper and lower parts of the blocks, as set forth.

3. In a shingle-machine, the combination, 45 with the hinged bar T, interposed between the rear ends of the lower part of a saw-mill carriage and the bar B of the upper part of the carriage that carries the bar C and knee D, of the upright lever U, the operating-rod V, the 50 rack-bar X, attached to the bar B, the pawl W, pivoted to the lever U, and the cord Y, connected with the pawl W, whereby the hinged bar T is adjusted and held, as specified.

4. The combination, with the saw-mill carriage A B C D, of the bar S, secured to the forward end of the lower carriage-section, A, and 55 hinged to the upper section, and the bar T, hinged to the rearward end of the lower section, supporting the upper section and serving to 60 raise and lower the same as it is moved on its hinges, as shown and described.

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Witnesses:

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