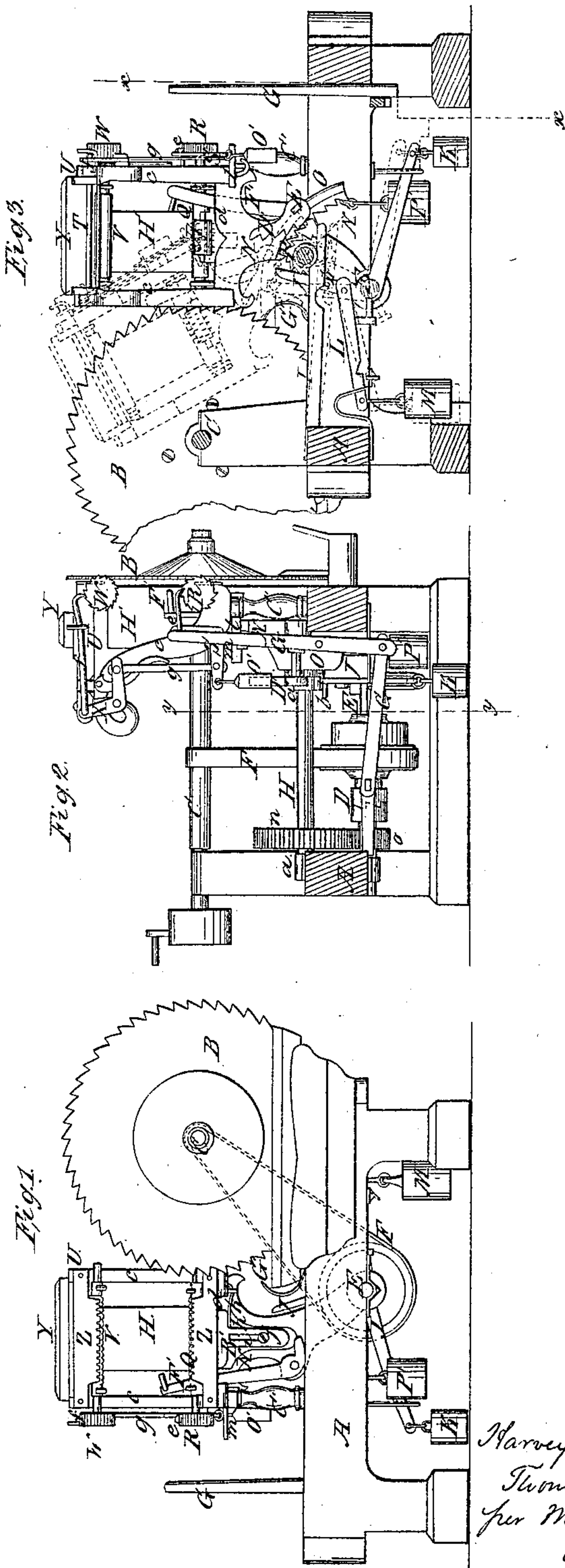


Parsons & Egerly, Sawing Shingles,

N^o 38,932,

Patented June 16, 1863.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEO. H. PARSONS, ADMINISTRATOR OF HARVEY M. PARSONS, DECEASED,
OF EAST EDDINGTON, AND THOMAS N. EGERY, OF BANGOR, MAINE.

IMPROVED MACHINE FOR SAWING SHINGLES AND STAVES.

Specification forming part of Letters Patent No. 38,932, dated June 16, 1863.

To all whom it may concern :

Be it known that we, GEORGE H. PARSONS, of East Eddington, in the county of Penobscot and State of Maine, administrator of the estate of HARVEY M. PARSONS, deceased, who was a resident of the same place, and THOMAS N. EGERY, of Bangor, in the county of Penobscot and State of Maine, do hereby declare that HARVEY M. PARSONS, deceased, and THOMAS N. EGERY did invent a new and Improved Machine for Sawing Shingles, Staves, and Like Articles; and we 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 front view of the invention; Fig. 2, a transverse vertical section of the same, taken in the line *x x*, Fig. 3; Fig. 3, a longitudinal vertical section of the same, taken in the line *y y*, Fig. 2.

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

This invention consists in the employment or use of a swinging or vibrating bolt-frame, provided with suitable dogs, and a feed mechanism, all arranged in such a manner as to feed the bolt automatically to the saw which cuts the shingles or other article from the bolt, as hereinafter set forth.

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

A represents a frame of rectangular form, and which may be constructed in any proper manner to support the working parts of the machine.

B is a circular saw, which is placed on a mandrel or shaft, C, on the frame A, and from which shaft C a clutch, D, on a shaft, E, is driven by a belt, F. This clutch is thrown in and out of gear with the shaft E by means of a lever, G, so that motion may be communicated to the shaft E from the mandrel or shaft C at the will of the operator.

H is a shaft which is fitted in the frame A. One end of this shaft is placed in a permanent bearing, *a*, but the opposite end has its bearing *a'* on an arm, I, one end of which is connected by a joint to a frame A. This arm I, near its opposite end, rests on a pin, *b*, which

is attached to a bent lever, J, the latter being on the shaft E and passing through the lever J. The lower part of the lever J near its outer end has a weight, K, attached to it, and an arm, L, is also connected to said lever, having a weight, M, attached to its outer end.

N represents a frame, the lower end of which is attached to the shaft E. On the lower part of this frame M there is a segment-rack, O, which at certain times gears into a pinion, P, on the shaft H. The upper part of the frame N is composed of two upright curved pieces, *c c*, which spring from a cross-bar, *d*. On the lower ends of these curved uprights *c c* there is fitted a toothed cylinder, Q, having at one end a ratchet, R, into which a pawl, *e*, catches, said pawl being attached to the upper end of a bent lever, S, which is attached to one end of the bar *d* of the frame N, and has a weight, O', suspended at the outer part of its lower end. (See more particularly Fig. 2).

In the upper end of the curved uprights *c c* there is fitted a shaft, T, on which a frame, U, is affixed. This frame U has a toothed cylinder, V, in its front end, which is precisely like the toothed cylinder Q previously described. The cylinder V also has a ratchet, W, at one end of it, which is directly above the ratchet R of the cylinder Q, and into the ratchet W a pawl *f*, catches, said pawl being attached to a bent lever, X, which is connected by a bar, *g*, with the bent lever S, as shown clearly in Fig. 2. On the frame U there is placed a weight, Y, and to the front end of the bar *d*, as well as to the front end of the frame U, there are attached serrated plates, Z Z.

A' represents a toothed cylinder, which has its shaft fitted in the upper part of a plate, B', the latter being placed in a recess, *h*, and having a slot, *i*, made vertically in it, through which a screw, *j*, passes into the frame N. A spring, *k*, bears against the plate B', and has a tendency to keep the toothed cylinder A' elevated to its fullest extent.

C' represents an upright attached to the frame A, said upright having a horizontal bar, *l*, attached to its upper end, on which an adjustable bar, *m*, is fitted.

D' is a curved serrated arm, which is attached to a shaft, E', the latter passing hori-

zontally through the frame N, and having an arm, E, at its outer end, which is shown clearly in Fig. 1.

G' is a spring, which is secured to the frame A, and against which the frame N bears during a portion of its movement.

The shaft H has a toothed wheel, *n*, upon it, which gears into a pinion, *o*, on the shaft E. (See Fig. 2.)

The operation is as follows: The bolt H' is fitted between the toothed cylinders Q, V, and A'. The weight Y causes the bolt to be firmly grasped by the toothed cylinders. The saw-shaft C is then rotated by any convenient power, and the clutch D engaged with the shaft F by adjusting the levers G. The shaft H is then rotated through the medium of the gearing *n o*, and the pinion P, in consequence of gearing into the rack O, will throw the frame N forward toward the saw B, and the bolt H' is thereby fed to the saw and the shingle or stave sawed off. By the time the sawing operation is completed, the curved serrated arm D' comes in contact with the upper end of the board J, the latter being thereby moved so as to throw the pin *b* into a notch, *a'*, in the under surface of the arm I, which causes the shaft H and pinion P to drop a trifle, the pinion being thereby disengaged from the rack O, and the frame N is thrown back to its original position, and as it reaches said position the bent lever S strikes the bar *m*, and thereby operates the pawls *e f*, which, through the medium of the ratchets R W, turns the toothed cylinders Q V and feeds the bolt H' a sufficient distance for a succeeding cut. When the serrated arm D' comes in contact with the upper end of the lever J, the former is held in position so as to move lever J, in consequence of the upper end of arm F' bearing against the side of the bolt H, as shown clearly in Figs. 1 and 3. When the frame is thrown back to its original position, the lever J is adjusted to its original position, so that the pin *b* will pass

out of and in front of the notch *a'* by means of the weight K, the loaded arm L assisting the lever J to move under the action of the arm D'. The toothed cylinder A' serves to prevent the bolt from being twisted or canted around between the toothed cylinders Q V, under the action of the circular-saw B. This is an essential feature of the invention, as without the cylinder A' the bolt would be very liable to be displaced. It will be seen that the motion of the saw-shaft C is continuous, the frame N being rendered operative and inoperative at will by adjusting the levers G, and it will also be seen that the spring G' serves to give a start or impetus to the frame N in order to throw it back as soon as the rack O is relieved from the pinion P, the lower end of the rack O having a weight, P', attached to it to assist its backward movement.

Having thus described the invention, what is claimed as new, and for which Letters Patent is desired, is

1. The swinging bolt-frame N, arranged to operate in connection with the circular saw B, through the medium of the segment-rack O, pulley P on shaft H, arm I, lever J, and the serrated arm D', or their equivalents, substantially as and for the purpose herein set forth.

2. The manner of feeding the bolt H' forward in the bolt-frame, as herein described—to wit, by means of the ratchets R W, pawls *e f*, bent levers S X, connected by the bar *g*, and the bar *m*, all arranged substantially as set forth.

3. The toothed cylinder, placed on the bolt-frame N, and arranged to operate as and for the purpose herein set forth.

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Witnesses:

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