A. B. J. Flowers,

Drag Saw.

No. 41,063. Patented Jan. 5, 1864.

Fig. 1

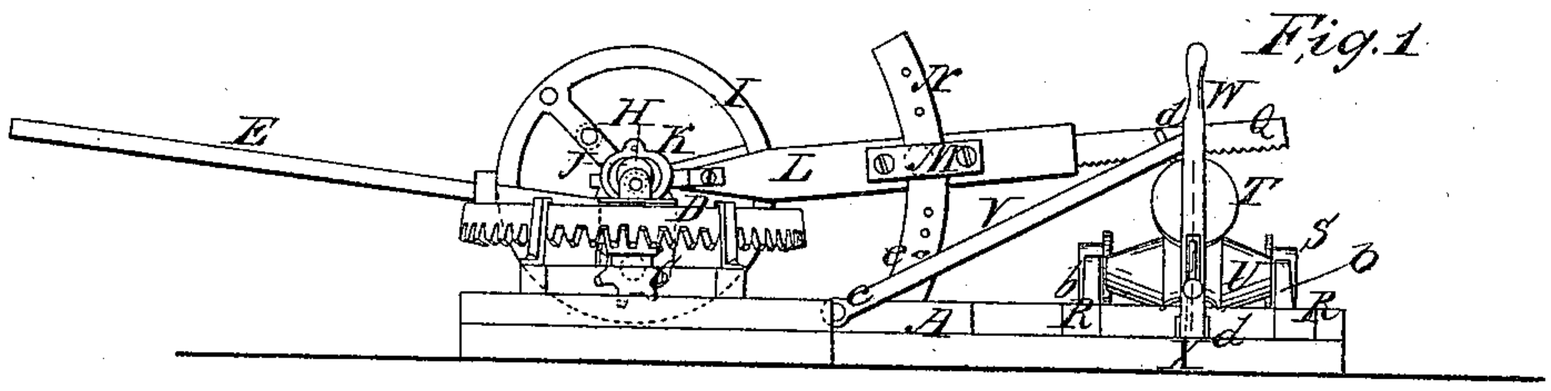


Fig. 3

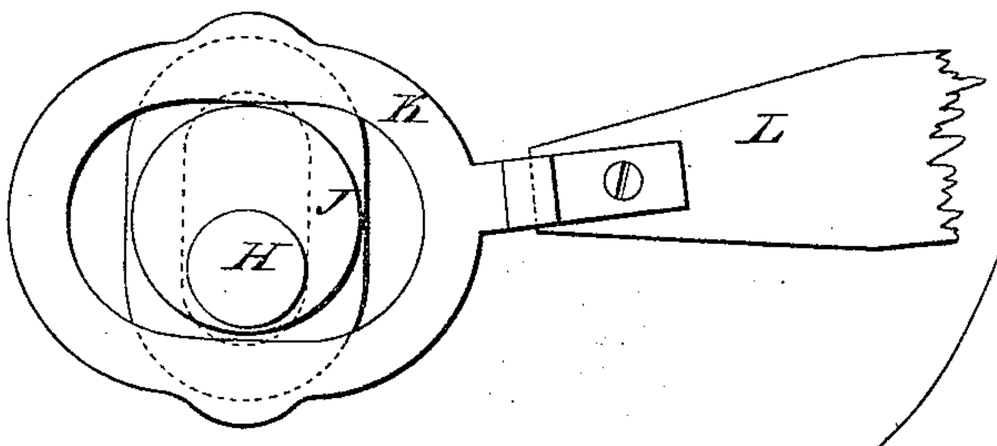
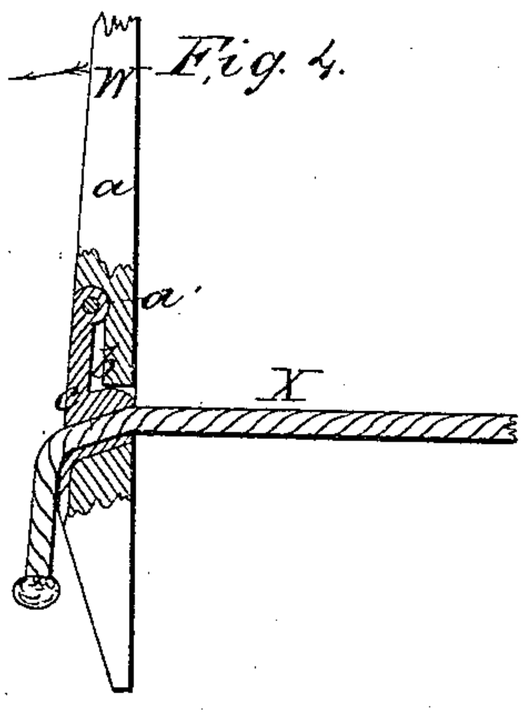


Fig. 2

Fig. 4.



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UNITED STATES PATENT OFFICE.

ANDREW B. J. FLOWERS, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN CROSSCUT-SAWING MACHINES.

Specification forming part of Letters Patent No. **41,063**, dated January 5, 1864.

To all whom it may concern:

Be it known that I, ANDREW B. J. FLOWERS, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and Improved Crosscut-Sawing Machine; 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 an end view of my invention; Fig. 2, a plan or top view of the same; Fig. 3, an enlarged detached view of an eccentric and yoke pertaining to the same; Fig. 4, an enlarged and detached sectional view of a dog pertaining to the same.

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

The object of this invention is to obtain a simple and efficient crosscut-sawing machine which will occupy but little space, be capable of being readily manipulated, the saw as it operates enabled to clear the kerf of sawdust, and the log fed or adjusted to the saw with the greatest facility, and firmly retained in position when adjusted.

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

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

B is a horizontal shaft, having on one end a pinion, C, which gears into a horizontal wheel, D, to which a sweep, E, is attached. On the opposite end of the shaft B there is also a toothed wheel, F, which gears into a pinion, F′, the latter being on a shaft, H, which also has upon it a crank-wheel, I, and an eccentric, J.

K is a yoke, which is fitted on the eccentric J, and is attached to a bar, L, the latter having a guide, M, at one side of it, said guide being fitted on a segment-bar, N, which is perforated with a series of holes, as shown clearly in Fig. 1. The side of the bar L opposite to the side where the guide M is attached is grooved longitudinally, and a slide, O, is connected by a pitman, P, with the wheel I, and to said slide the saw Q is attached.

R R represent two ways, which are permanently attached to the platform, and have a truck, S, placed thereon. This truck is provided with a bolster, *a*, having a curved recess in its upper surface to receive one end of the log T to be sawed; and on said ways, at a point underneath the saw Q, there is a roller, U, having a concave made circumferentially in it to receive the opposite end of the log T. The bearings *b b* of the roller U are attached to the ways R R.

V is a bar, one end of which is secured by a pivot, *c*, to the framing A, near the bottom of the segment-bar N. The outer end of this bar has a spike, *d*, in it to penetrate into the upper surface of the log T, and prevents it from rolling on its supports.

W represents a clamp-lever, which is formed of a bar, *a*, having a mortise, *b*, made in it for a rope, X, to pass through. This bar *a* has a clamp or jaw, *c*, fitted in the mortise *b* and working on a pivot, *a′*, which, when the bar *a* is moved in the direction indicated by the arrow 1, (see Fig. 4,) will bite or clamp the rope X between it and the bottom of the mortise, the latter being attached to the truck S, and the lower end of the bar *a*, when actuated, resting against a projection, *d*, in the platform of the framing A. (See Figs. 1 and 2.)

The operation is as follows: The log T is adjusted on the truck S and roller U, and the spike *d* in the bar V is pressed down into the upper surface of the log, and the latter, by drawing the truck through the medium of the rope X, placed in the proper relative position with the saw Q, the latter being raised and secured in an elevated position, free from the log, by a pin, *e*, in the segment-bar N. When the log is properly adjusted, the pin *e* is withdrawn, and the saw allowed to rest upon the log, and a reciprocating movement is given the saw by starting the draft-animal attached to the sweep E. Besides the reciprocating movement of the saw, which is communicated to it by the wheel I and pitman P, it has a vibrating movement, which is given it through the medium of the bar L, yoke K, and eccentric J. This vibrating movement enables the saw to clear the kerf of sawdust, and the eccentric should be so arranged relatively with the driving parts of the saw that the heel or back part of the saw will be raised as it is shoved forward and lowered as it is drawn back. The log T, after each cut, is fed or drawn along for a succeeding cut by raising the saw and placing the pin *e* underneath

the bar L, and then operating or pulling the rope X through the medium of the clamp-lever W, the rope being held taut with one hand while the lever is shoved forward by the other to obtain a bite on the rope, and the latter being drawn forward when the lever or bar *a* is moved in the direction indicated by arrow 1 in Fig. 4. The segment-bar N serves to guide and steady the saw Q and bar L, and the bar V, with its spike *d*, serves to prevent the log from rolling, and also from rising during the first cuts.

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

1. The giving of the saw Q a vibrating motion independently of its reciprocating movement through the medium of the bar L, yoke K, and eccentric J, arranged substantially as and for the purpose herein set forth.

2. The clamp-lever W, formed of the bar *a*, provided with the mortise *b* and clamp or jaw *c*, substantially as and for the purpose specified.

3. The dog composed of the bar V and spike *d*, arranged and applied substantially as set forth.

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Witnesses:
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