(No Model.)

G. A. MOFFAT.

DRAG SAW.

No. 260,218. Patented June 27, 1882.

Fig. 1.

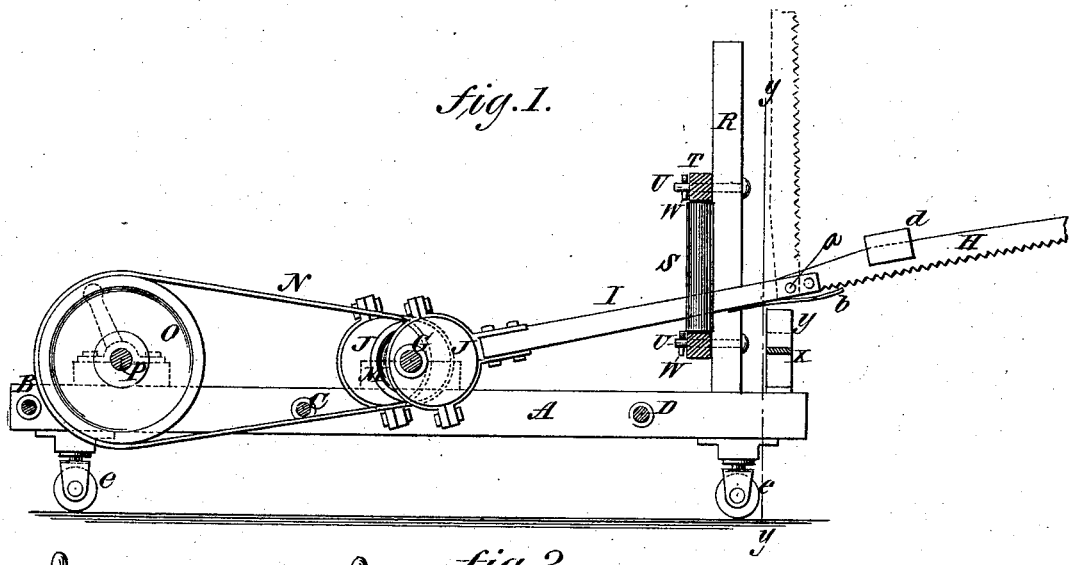


Fig. 2.

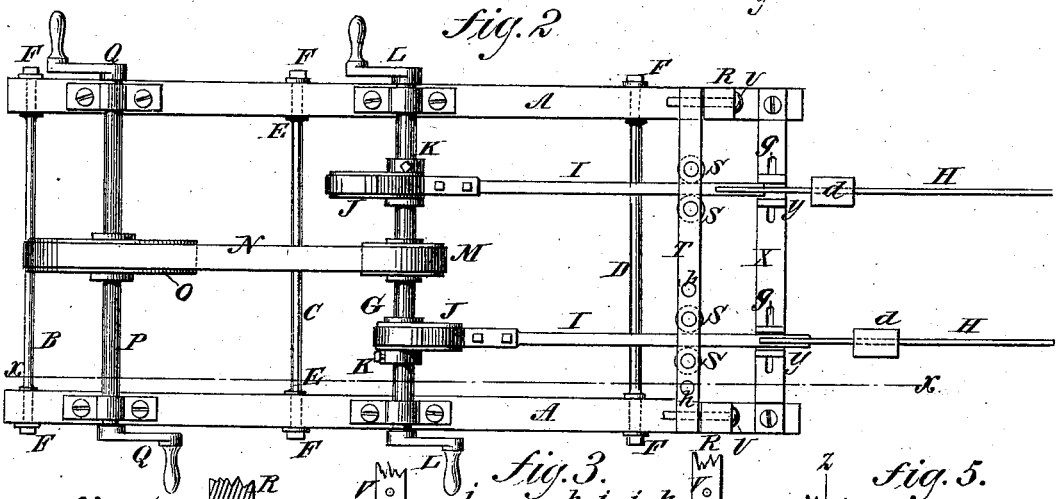


Fig. 4.

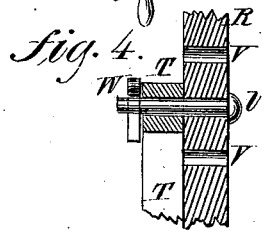


Fig. 3.

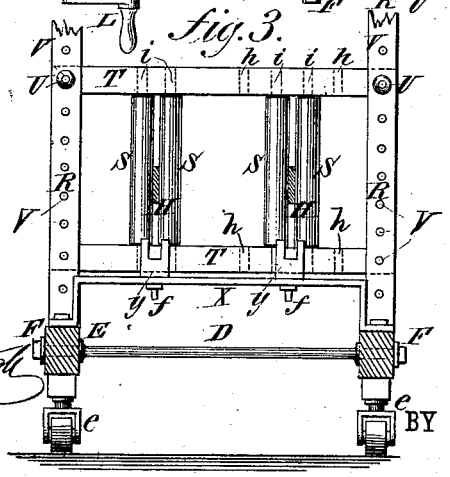
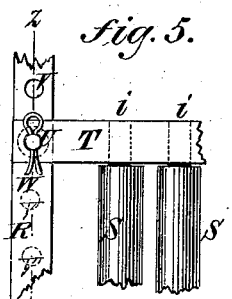


Fig. 5.



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GEORGE A. MOFFAT, OF MINERAL SPRINGS, ARKANSAS.

DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 260,218, dated June 27, 1882.

Application filed March 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, G. A. MOFFAT, of Mineral Springs, in the county of Howard and State of Arkansas, have invented a new and useful Improved Sawing-Machine, of which the following is a full, clear, and exact description.

This invention consists of an improved cross-cut sawing-machine contrived for being worked by hand or power with two saws, one of which is readily adjustable for cutting different lengths, or to work one saw alone, the saws being operated from one driving-shaft, to which both are connected by rods and eccentrics, along which shaft one of said eccentrics may be shifted readily to shift the saw for the different lengths to be cut, and the saws, driving-gear, guides, and all being mounted on or upon a portable frame upon caster-wheels, whereby the machine may be readily turned and moved about among trees, stumps, and the like, all as more fully described hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved machine, taken on the line *x x* of Fig. 2. Fig. 2 is a plan view. Fig. 3 is a transverse section taken on the line *y y* of Fig. 1. Fig. 4 is a detail section of Fig. 5 on line *z z*, and Fig. 5 is a detail section of the saw-guiding apparatus in side elevation.

The frame supporting the machinery consists of the two timbers A, parallel to each other, a suitable distance apart, and connected by cross-stays of metal rods, B, C, and D, having shoulders inside and nuts F outside to screw up the timbers tightly, but so that they can be readily disconnected.

G represents the driving-shaft for working the saws H, which are connected to it by rods I and eccentrics J, the eccentrics being used instead of cranks, because of the great facility of shifting one or both along the shaft to set the saws at different distances apart for cutting different lengths of wood. The said eccentrics are fastened adjustably on the shaft by set-screws K. The shaft is provided with cranks L, one at each end, to work it by the power of one or two men, and it has a pulley, M, upon it, between the eccentrics, by which to apply other power, with a belt, N, from a larger driving-pulley, O, upon a counter-shaft, P, located on the end of the frame opposite to the end where the saws are located, which shaft also has cranks Q for hand-power, the said shaft P being used alone to speed the eccentric-shaft G higher, or together with hand-power, also applied to it and working quicker to increase the force. Horse, steam, or other power may also be applied to shaft P or directly to the eccentric-shaft G, as desired.

The connecting-rods being rigidly attached to the eccentric-straps is another advantage of eccentrics, instead of cranks, on this kind of machine, because the connection is substantial and lasting as compared to the wrist-pin connection of the crank, which needs frequent and careful adjustment.

Near the saw end of the frame are a couple of saw-guide-supporting posts, R, whereon a pair of vertical roller-guides, S, are mounted for each saw by a frame, T, which is vertically adjustable on the posts R by shifting it up or down and securing it by means of pins U and holes V, the pins being fastened against working out by spring-keys W. These roller-guides are a little longer than the width of the saws, and are to be let down from time to time on the guide-posts R as the work progresses. The upper and lower bars of the guide-frame T will have a series of holes, *h*, for one pair of rollers, for shifting them with the saw. The frame T may be constructed to take apart for this purpose, or the rollers may be tubular with removable rods *i* as a means of shifting them.

Beyond the guides there is a fork-frame, X, resting on and bolted to the timbers A and supporting a forked or notched rest, Y, in which the saws are to rest when turned up on end (shown in dotted lines *m*, Fig. 1) out of the way, for placing the logs to be sawed and removing them afterward. One of the forked rests Y is adjustable along the frame X, to shift when the saw is shifted, the bolt *f*, by which it is secured with a nut under the frame, passing through a slot, *g*, in the frame.

The saws are pivoted to the connecting-rods at *a* for being turned upright and to prevent them from falling below the line of the

connecting-rods. A plate, *b*, is bolted to the under side of the rods I, and extends along past the pivots under the edge of the saws sufficiently to keep them in line with the rods. Each saw is loaded with a weight, *d*, to produce the cutting-pressure. The frame is mounted on caster-wheels *e*, which are preferred because of the facility they afford of turning shortly, as is required to get around the stumps and trees in the woods.

For sawing longer pieces than the distance between the saws, one of them may be disconnected and only one used.

The eccentrics are set to throw in opposite directions at the same time to balance and equalize the work, so that by using two saws together in this way it is believed that more work can be accomplished with a given amount of power than with one saw alone.

The machine will be very useful for sawing wood, stave, heading, and shingle and other bolts.

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

1. The combination on the same frame of two drag-saws, connected by rods I, with two eccentrics adjustable on the same rotary shaft G, as and for the purpose specified.

2. The combination, with the saws connected with the driving-shaft G by eccentrics adjustable thereon, of an adjustable rest and adjustable roller-guides, substantially as shown and described.

3. The combination, in a sawing-machine, of the horizontally-reciprocating cross-cutting saws geared upon one shaft by eccentric devices, one or both saws being adjustable along the shaft for setting the saws toward and from each other, substantially as specified.

GEORGE ANDERSON MOFFAT.

Witnesses:
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