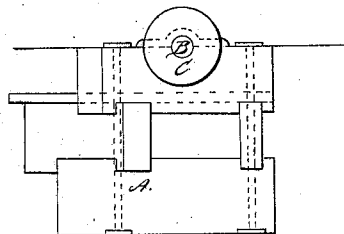
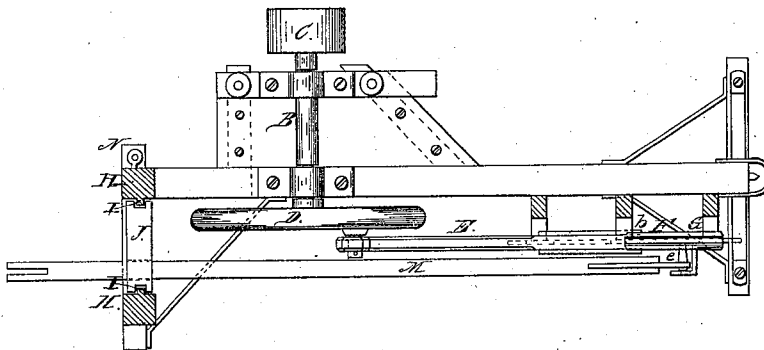
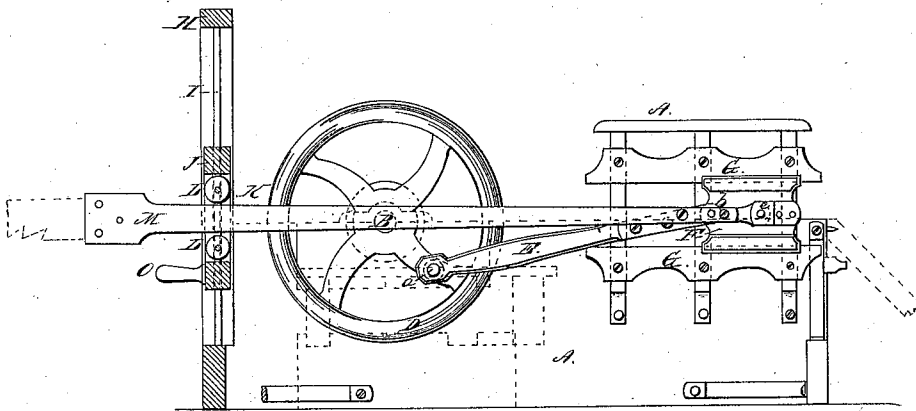


E. Berry,
Drag Saw,
No 43,561, *Patented July 19, 1864.*



Witnesses
W. Cronin
Henry Morris

Inventor
E. Berry
per [Signature]
Attorneys

UNITED STATES PATENT OFFICE.

E. BERREY, OF AUBURN, INDIANA.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 43,561, dated July 19, 1864.

To all whom it may concern:

Be it known that I, E. BERREY, of Auburn, in the county of De Kalb and State of Indiana, have invented a new and useful Improvement in Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable any person skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which:—

Figure 1 is a side sectional elevation of my improvement. Fig. 2 is a plan view. Fig. 3 is a side elevation showing the driving-drum shaft and its support.

This invention relates to that class of sawing-machines which are employed for cutting up firewood, logs, &c. In some machines of this class it is common to have the sliding cross-head, to which the saw-pitman is attached, arranged between the driving-wheel and the saw. This plan is attended with the disadvantage of having a very short saw-pitman, which cannot be elongated without extending the length of the whole machine, thus increasing the expense of construction, besides rendering the machine heavy and clumsy. Another disadvantage is that such short saw-pitman necessarily occupies an angular position, unless the machine is well elevated above the wood that is to be cut; hence the pitman will require increased power to drive it, and the advantage of its weight, to press the saw upon the log, will to a certain extent be lost.

My improvement consists in the arrangement of the driving-wheel and driving-pitman between the cross-head and the rising and falling gate. By means of this improvement I am enabled to use a saw-pitman of increased length without elongating the machine. The saw-pitman extends across the entire length of the machine, and consequently the angle at which it operates will be slight. It will run nearly on a horizontal line, so that its whole weight will be thrown upon the saw, and it will therefore work in the most effective manner at the smallest expense of power.

A is the frame of the machine; B, the driving-shaft; C, the driving-drum, and D the

driving fly-wheel, all constructed in the ordinary well-known manner. Pivoted to the fly-wheel D at *a* is the driving-pitman E, which, at *b*, is also pivoted to the sliding cross-head F, which thus receives motion from wheel D. The cross-head F consists of a sliding plate, grooved at its upper and lower edge to receive the guide-plates G G, between which it slides, the said guide-plates G G being attached to the frame A, as shown in Fig. 1. At the opposite or front end of the machine, rising from the frame, are two posts, H H, upon the inner sides of each of which is a feather or projecting guide, I, between which there is a rising and falling gate or slide, J, having its edges grooved to fit the guides I. The gate J has an opening or slot cut in it at K, and at the upper and lower ends of the slot there is a roller, L. The space between the two rollers is sufficient to receive the saw-pitman M. This pitman is intended to be attached to the saw at its front end, while its rear end is pivoted at *c* to the cross-head F, as shown in Figs. 1 and 2. Passing through the side of one of the posts H is an adjusting-pin, N, which enters into holes in one edge of the gate J. By having a series of holes in the post H and in the edge of the gate J, the latter may be set and adjusted at any desired point. The front of the gate J is also provided with a handle, O, by which it may be conveniently raised or lowered.

I do not claim the invention of the sliding gate with the pitman passing through it. Neither do I claim, broadly, the use of an elongated saw-pitman extending past the driving-wheel; but,

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

The combination of the fly-wheel D, wrist *a*, driving-pitman E, cross-head F, saw-pitman M, gate J, and rollers L L, all constructed, arranged, and operating in the manner and for the purposes herein specified.

E. BERREY.

Witnesses:

GEORGE S. McCORD,
LYMAN CHIDSEY.