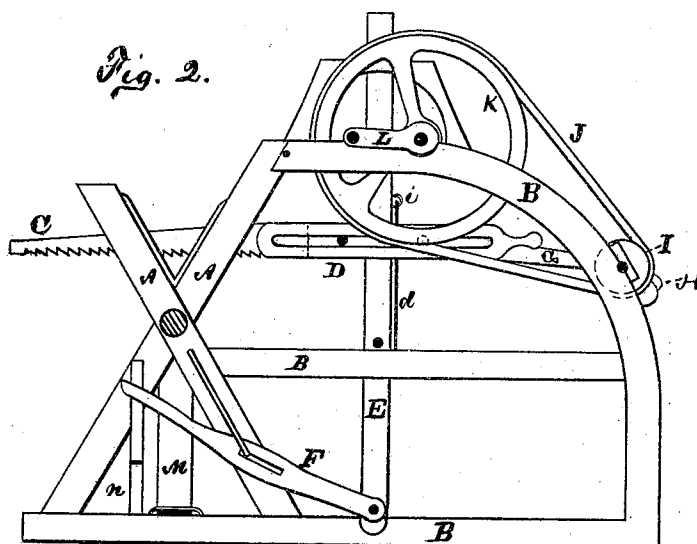
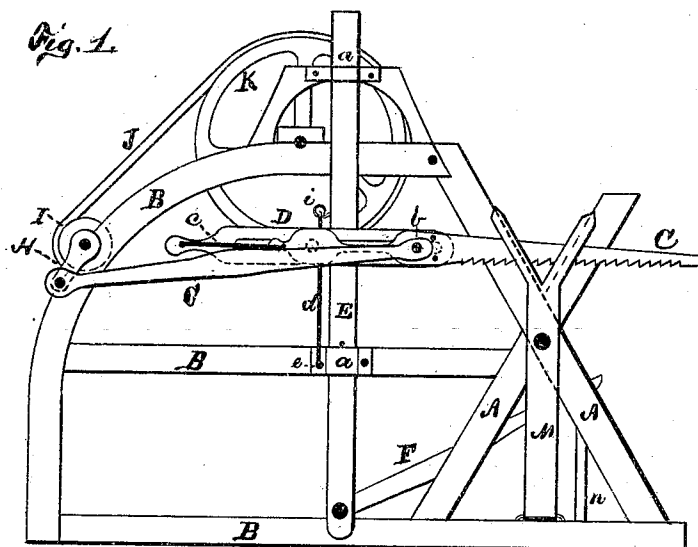


MACHINES FOR SAWING WOOD.

Patented July 4, 1876.



Witness,

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MACHINES FOR SAWING WOOD.

Specification forming part of Letters Patent No. **179,592**, dated July 4, 1876; application filed January 6, 1876.

To all whom it may concern:

Be it known that we, HENRY C. MILLER and MOSES MILLER, both of the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Machines for Sawing Wood; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates more particularly to certain improvements in machines for sawing wood by hand, the object of which is to lessen and lighten the labor.

The accompanying drawing fully illustrates the nature and character of our improvements, in which the Figures 1 and 2 are elevations, showing both sides of a machine for sawing wood constructed in accordance with the principles contemplated in our invention.

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

A represents an ordinary buck or saw-horse, connected with which is a frame-work, B, upon which the machinery, &c., is adjusted, which operates the saw. The buck and frame-work may be constructed of wood or iron, or both, as may be preferred. The saw C moves backward and forward in a slotted bar, D, secured transversely upon a vertically-adjustable bar, E, or the slotted transverse bar may be adjustable vertically, if preferred, which is connected with the frame-work at *a a*, and is operated—that is, raised and lowered—by means of a lever, F, all as indicated and shown in the drawing, said saw being operated as follows:

A pitman, G, is secured to the handle of the saw at *b*, and to a crank, H, which is connected with a pulley, I, the latter being made to revolve by means of a belt, J, connecting with the driving wheel or pulley K, which is operated by means of a crank, L, as clearly indicated and shown.

It will be seen by reference to the drawing that the saw is intended to cut on its back-

ward motion only; and in order to facilitate the operation and equalize the power required to produce the backward and forward motion, we attach a spring, *c*, of rubber or other suitable material, one end to the handle of the saw, and the other to the slotted transverse bar D, in such a manner and position as that when the saw moves forward freely through the kerf—not cutting—the spring will be distended or elongated, and when in its backward motion, and cutting, the spring will contract, thereby producing the effect above stated.

We also employ a similar device—spring *d*—to secure the requisite downward pressure upon the saw, one end of said spring being secured to the frame at *e*, and the other to the transverse bar D, or to the vertically-adjustable bar E at *i*, as shown in Fig. 1.

When the saw is raised to its highest point, in order to place a log of wood upon the saw-horse, the lever F is arranged so as to engage with a notch in a post, *m*, in order to retain it in such position while adjusting the log.

It will be observed that said lever F is provided with a slot at its fulcrum to prevent it from binding when raising or lowering the saw. Provision is also made for balancing the log while sawing the last one or two lengths, consisting of the auxiliary adjustable standard or support M, having a V-shaped end, corresponding in height, &c., to the saw-horse, and arranged so as to be moved outward and inward, as required, and as will be readily understood, the bottom end forming an L, and sliding in a suitable groove in the frame, and near its top, upon a rod, *n*, connected with the saw-horse, all as shown and indicated in the drawing.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a machine for sawing wood, the combination, with the saw-horse A and frame-work B, of the saw C, slotted bar D, bar E, lever F, and spring *d*, when constructed, combined, and arranged to operate substantially as and for the purposes set forth.

2. The combination of the saw C, pitman G,

crank H, pulley I, driving-wheel K, and spring c, when combined and arranged to operate substantially as and for the purposes set forth.

3. The combination, with the saw-horse A, of the adjustable auxiliary rest or support M, for the purpose set forth.

In testimony that we claim the foregoing as

our own we hereto affix our signatures in presence of two witnesses.

HENRY C. MILLER.
MOSES MILLER.

Witnesses:

OLIVER DRAKE,
J. C. TUNBRIDGE.