(No Model.)

S. W. BROWN.

Sawing Machine.

No. 233,597. **Patented Oct. 26, 1880.**

Fig. 1.

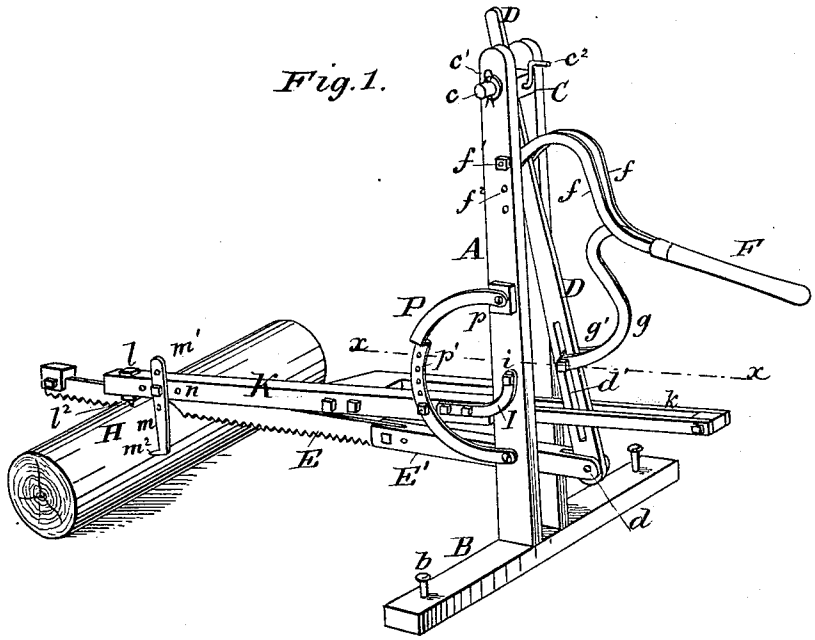
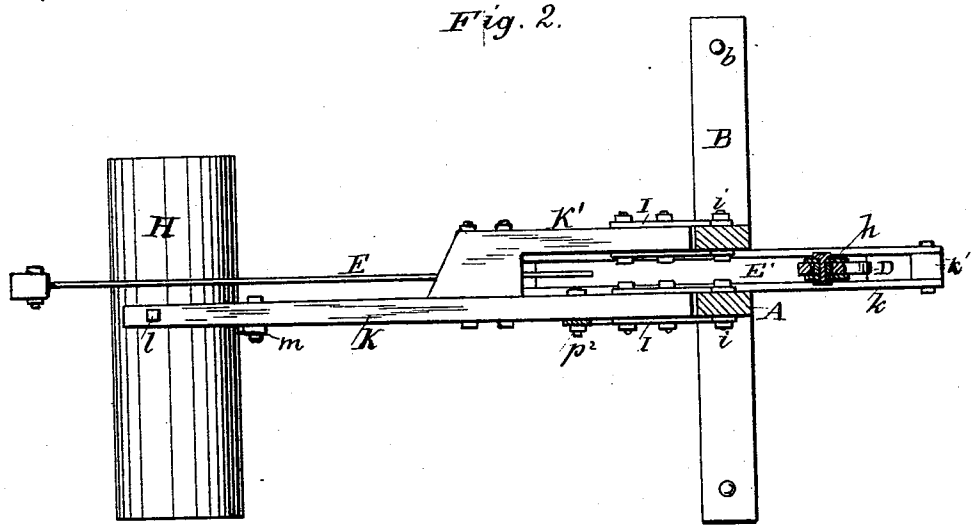


Fig. 2.



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UNITED STATES PATENT OFFICE.

SAMUEL W. BROWN, OF ALLIANCE, OHIO.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 233,597, dated October 26, 1880.

Application filed August 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL WILEY BROWN, of Alliance, in the county of Stark and State of Ohio, have invented a new and useful Sawing-Machine, of which the following is a specification.

This invention relates to improvements in mechanical devices which are designed for operating crosscut or drag saws by means of a vertically-worked lever connected with a vibrating rod.

The nature of this invention consists in the arrangement and construction of the frame with a slotted vibrating rod adapted to be adjusted and pivoted to the top of said frame and to the saw, and an adjustable handle provided with three arms, two of which are pivoted to the frame and the other has its extremity provided with a roller adapted to work in the slot of the vibrating rod.

It consists, also, in combining with the main frame a horizontal arm hinged thereto, longitudinal guides secured to said arm and extending in the rear of the device on each side of the vibrating rod, and a semicircular guide or brace secured to the horizontal arm and to the main frame above and under said arm, to retain the latter at any desired angle with the main frame.

In the accompanying drawings, Figure 1 is a perspective view of my improved device, and Fig. 2 is a horizontal section of the same, taken on line *x x* of Fig. 1.

In said drawings, A represents the uprights or main frame of the device. They are secured by tenon and mortise, or otherwise, to a sill, B, which can be retained in place on the ground by pins *b*, driven therein. The uprights are united at the top by a rectangular block, C, having journaled ends *c* passing through said uprights and transverse pins *c'* through said journals. The block C is perforated vertically to receive the upper portion of a pendulum-like vibrating rod, D, which is retained at any desired height by means of a hand-screw, c^2, entering said block. To the lower end of this rod D is pivoted, at *d*, the saw E or its extension E'. To oscillate the rod D, and consequently operate the saw, the handle F is used. It is provided with two branching upper arms, *f f*, to guard against lateral strain, each one being secured separately to one of the uprights A by bolts *f'* passing through one of the series of holes f^2 in the uprights. The handle F has also a lower arm or brace, *g*, forked at its lower end, *g'*, to embrace the rod D, a small roller, *h*, secured between the forked ends passing through a longitudinal slot, *d'*, of said rod, to reduce the friction upon the sides of said slot.

To secure the frame A to a log, H, or to other timber, there is pivoted to one of the uprights of said frame, at *i*, by means of a bolt and two straps, I, an arm, K, of suitable length to extend on top of said log. Said arm is constructed with a side extension, K', bolted thereto, which is also provided with straps I, pivoted to the second upright, forming a long mortise between the arm K and its side extension, K'. To each internal face of this mortise is secured a flat rod, *k*, to be used as guides for the vibrating rod D, and consequently for the saw. These rods may be retained parallel with a block, *k'*, bolted between them at the rear, or the space between them may there be left open, as these guides have a sufficient support against the side of the arms K K', and thus the handle F may, for the convenience of operators, be set so low that the arm *g* will freely pass between said guides or rods *k*. The free end of the long arm K is provided with a vertical spike, *l*, to be partly driven into the log, its head resting upon the arm, which is retained united thereto by a nut, l^2, encircling its lower portion. To prevent the spike *l* from becoming disconnected from the log while being sawed there is pivoted to the side of the arm K an adjustable hook, *m*, by means of a bolt, *m'*, passing through one of the perforations *n* in said arm, its hook end m^2 being thus easily driven into the log.

To rigidly unite the arm K to the uprights of the frame there is a semicircular guide, P, bolted to the latter at *p* above and under the hinge-bolt *i* of said arm. This guide is provided with a series of perforations, *p'*, through one of which is passed the bolt p^2, extending through the arm K, and a nut on the end of said bolt secures the parts together at any desired angle, the arm K being thus rigidly braced from above and from below to the uprights of the frame.

With a device thus constructed the height of the handle can be regulated, and consequently, also, the length of the stroke required in sawing wood.

Having now fully described my invention, I claim—

1. The combination of the vertical frame A, journaled block C, and adjustable slotted rod D with handle F, having arms *f*, pivoted to the frame, and arm *g*, capable of adjustment in slot *d'*, substantially as and for the purpose described.

2. The combination of the frame A, journaled block C, and adjustable rod D, having a saw attached thereto, as shown, with arm K pivoted to the frame, longitudinal guides *k*, extending in the rear thereof, and semicircular guide or brace P, secured to arm K, and to the main frame above and under said arm to brace and retain it, substantially as described.

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Witnesses:
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