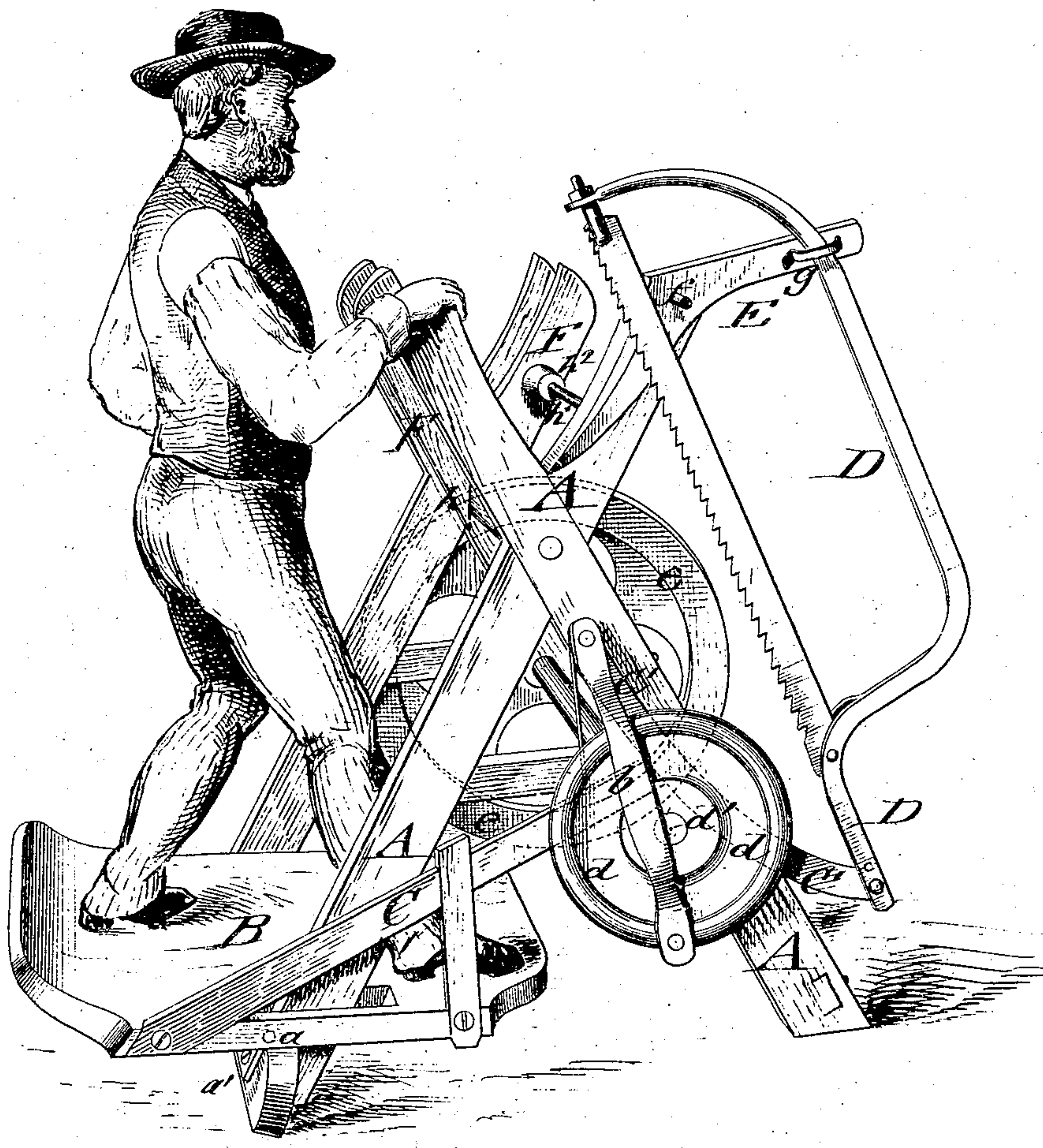


J. M. LINNELL.
Sawing-Machines.

No. 153,580.

Patented July 28, 1874.



WITNESSES:
Tustave Dutcher
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UNITED STATES PATENT OFFICE.

JOHN M. LINNELL, OF MONTICELLO, IOWA.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. **153,580**, dated July 28, 1874; application filed June 20, 1874.

To all whom it may concern:

Be it known that I, JOHN M. LINNELL, of Monticello, Jones county, Iowa, have invented a new and Improved Sawing-Machine, of which the following is a specification:

The accompanying drawing represents a perspective view of my improved sawing-machine.

The invention relates to a sawing-machine operated by a treadle. The invention consists in the construction and arrangement of parts with an ordinary saw-horse, as hereinafter described.

An adjustable V-piece or crotch slides on the cross-beam and guide-arm of the saw-horse, and supports sticks of smaller size for being acted upon by the saw.

In the drawing, A represents a saw-horse of the common construction, with side standards and lateral cross-pieces of suitable strength, for supporting the weight of the body, and the additional parts attached thereto. A platform-treadle, B, is pivoted by a cross-rod, *a*, to suitable bearings, *a'*, of the side standards above the lateral bottom piece of the same, and made of concavo-convex shape, for giving a firmer hold to the feet of the person operating the machine, and preventing, also, the contact of the under side with the ground. The treadle B is extended to one side to project beyond the horse-standard, and provided with an inclined lever-arm, C, which is rigidly braced to the treadle, and connected by its curved extension C' with the bifurcated end of the saw-frame D. The rear part of extension C' is connected to a pivoted lever-rod, *b*, with a crank-wheel shaft, *d'*, and balance-wheel *e* at the opposite side of the saw-horse, with shaft *d'* turning in suitable bearings of the same. The balance-wheel is weighted at one side for the purpose of carrying the crank-wheel into position to be readily moved by the treadle and arm, avoiding the position of the same on one of the dead-points for starting. The forked end of said frame D is adjustably pivoted to the rear end of the extension C', and reciprocating motion imparted to it by the arm and extension C C'. Said frame

D is made of curved shape, in any approved manner, with a saw-blade cutting in both directions, clamped adjustably and detachably therein. A rear-extending arm, E, is bolted to the upper part of the saw-horse A, serving for guiding the saw-frame along the same, it being held in forward position for the sawing by a pin, *f*, of the same, and in rearward position, when thrown back for adjusting the log, by a spring-hook, *g*, near the outermost end of the arm E. A V-shaped piece, F, corresponds in shape with the upper legs of the saw-horse A, and slides by a groove, *h*, on the main cross-piece of the saw-horse, and by a sleeve-shaped perforation, *h*², in a lateral guide-rod, *h*¹, of the upper part of the saw-horse. Crotch or piece F serves to support sticks or logs of lesser width than the saw-horse, by being carried between the side standards into the required position.

The machine is operated by rocking the treadle-platform with the feet, pressing with one hand the upper part of the saw-frame, and feeding with the other hand the sticks to the saw.

The saw-frame may be adjusted to greater or less height by changing the pivot at the bifurcated end, so as to be more convenient for persons of larger or smaller size, and the machine may be operated with great ease and rapidity, as the whole body comes equally into action, without fatiguing any special part thereof.

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

The machine herein shown and described for sawing wood, composed of a saw-horse, A, provided with the extended arm E, having hook *g* and pin *f*, the platform B, connecting-arms C C', saw D, shaft *d'*, balance-wheel *e*, crank-wheel *d*, and pivoted lever-rod *b*, all being constructed and operated substantially as set forth.

JOHN M. LINNELL.

Witnesses:

CHAS. W. GURNEY,
J. Q. WING.