

(No Model.)

M. O. SMITH.

DRAG SAW.

No. 266,650.

Patented Oct. 31, 1882.

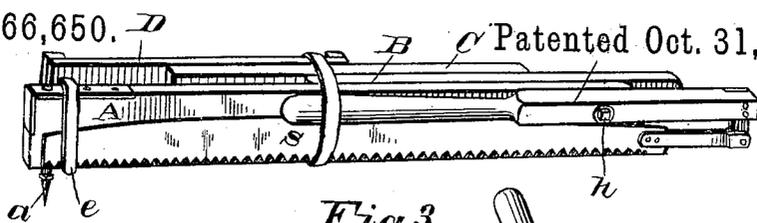


Fig. 3

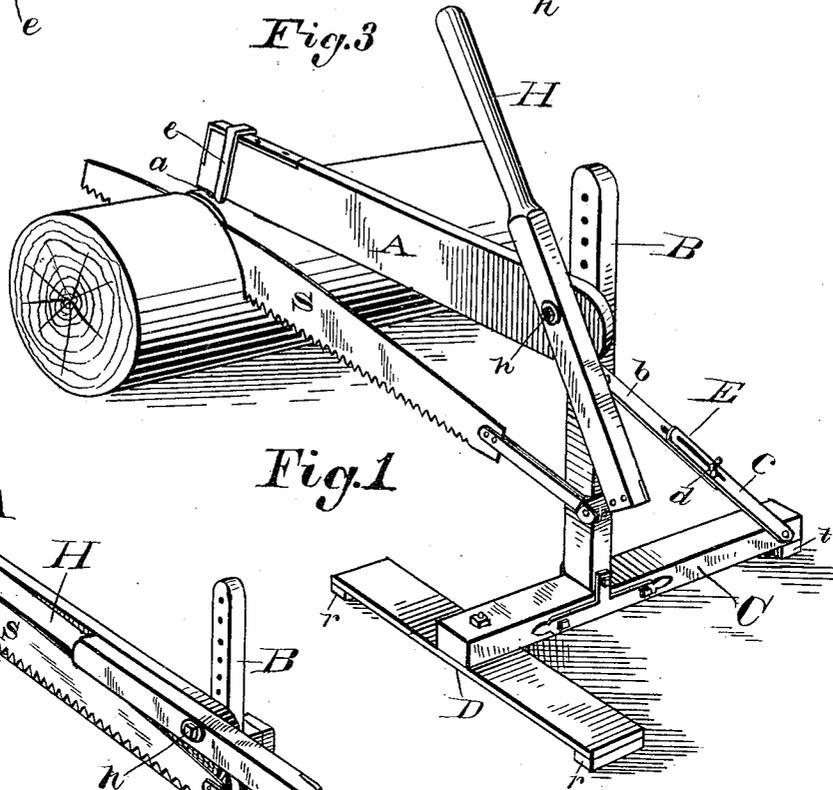


Fig. 1

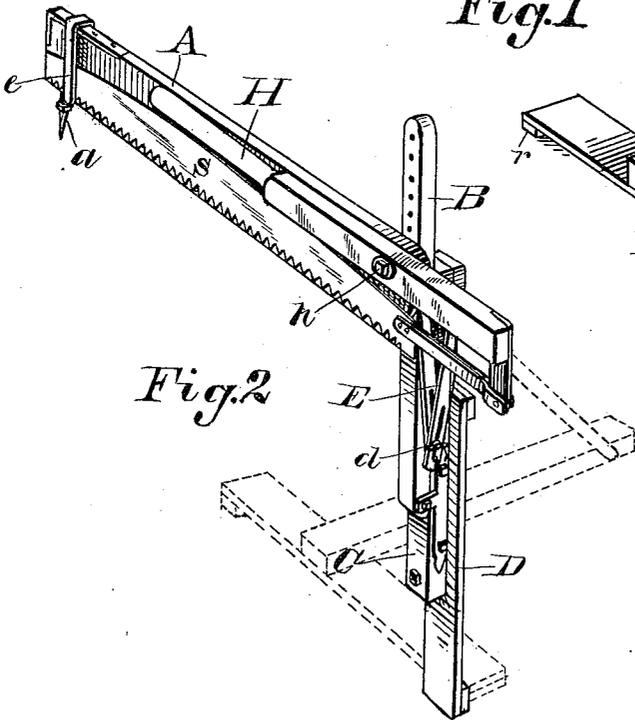


Fig. 2

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DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 266,650, dated October 31, 1882.

Application filed February 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, MARVIN O. SMITH, a citizen of the United States of America, residing at New Buffalo, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Drag-Sawing Machines, of which the following is a specification.

My invention relates to a sawing-machine particularly adapted to the wants of farmers or others for sawing felled timber into wood or logs; and the objects of my invention are, first, to provide a sawing-machine which shall be at once simple and cheap in construction and readily adjustable to saw at any angle, and, second, to provide such a machine which shall be lightly constructed and so arranged that it may be quickly and easily folded up into small compass for convenience in transportation from place to place.

To this end my invention consists in the arrangement of parts shown in the accompanying drawings, in which—

Figure 1 is a perspective view, showing the machine in use; Fig. 2, a perspective view of the same partly folded; and Fig. 3, a perspective view, showing the same completely folded and ready for transportation.

Like parts are referred to by like characters of reference throughout the several views.

In the drawings, A represents a bar, made preferably of wood, to secure lightness, provided at one end with a spike, *a*, and hinged at the other end, near its upper edge, to an upright piece, B, by means of a bolt, *h*, which also passes through and serves to hold a lever, H, which vibrates thereon, the upper end of which is formed into a suitable handle, and the lower end connected by suitable connections to a saw, S. The upright piece B is hinged at its lower end to a cross-piece, C, and is held at any desired angle thereto by means of an adjustable brace, E, composed of two parts, *b* and *c*, one end of each of which is hinged respectively to the upright piece B and the cross-piece C, the remaining ends being provided with slotted holes, and connected by a thumb-screw, *d*.

At one end of the cross-piece C, on its under side, is a foot-board, D, secured thereto by a single bolt, which serves as a swivel on which the foot-board D may turn in either direction. At each end of the board D, on the

under side, is a small block, *r*, the thickness of these blocks *r* and board D being compensated for on the other end of the cross-piece C by a small block, *t*. At the outer end of the bar A is a loop, *e*, which stands a little way from the face of said bar, for the purpose hereinafter specified.

In sawing with this machine the foot-board D is turned at right angles to the cross-piece C, with the three points *r*, *r*, and *t* resting on the ground at the proper distance from the log to be sawed. The upright B is then adjusted at right angles or at any desired angle to the log by means of the adjustable brace E. The spike *a* in the end of the bar A is then driven firmly in the log, the saw S being between the loop *e* and the face of the bar A and resting on the log. The saw is operated by the handle H, the operator standing on the foot-board D, the loop *e* serving to guide the saw until it is properly started.

It frequently happens that the log to be sawed lies at an angle to the ground on which the machine must rest; but it will be readily seen that by means of the adjustable brace E the log may be sawed at right angles, or at any desired angle, no matter in what position it lies. The inner end of the bar A may be adjusted up or down on the upright B by placing the bolt *h* in any one of the series of holes *h'* therein.

In folding the machine for transportation the saw S and handle H are brought parallel along the face of the bar A, with the outer end of the saw behind the loop *e*, (see Fig. 2.) and held in this position by buttons *u u*, hinged on the under side of the bar A and turned out for this purpose. The foot-board D is now turned under and parallel to the cross-piece C, the thumb-screw *d* of brace E loosened, and the cross-piece C and foot-board D turned up against the upright B, with the brace E folded between. The thumb-screw *d* is again tightened, and the machine appears as shown in Fig. 2. The upright B, with the cross-piece C and foot-board D, is now turned on the bolt *h* in the direction of the arrow until the whole is parallel with the bar A. (See Fig. 3.) A strap or equivalent may now be placed around the whole to hold it in place, when it is ready for transportation, and may be carried with ease from place to place.

It will be seen that this machine is at once simple and cheap in construction, and may be readily adjusted for different kinds of sawing, and when made of the proper material it is very light, (the whole weighing less than twenty pounds,) and when folded may be easily carried from place to place by a man or boy.

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

1. In a sawing-machine, the combination, with the cross-piece C and the upright B, hinged thereto and connected to the saw-lever H and bar A, of the adjustable brace E, formed in two parts, having slotted ends connected by a set-screw, substantially as and for the purpose described.

2. In a sawing-machine, the combination of the cross-piece or support C, having foot D, pivoted thereto, the upright B, hinged to the support C, the adjustable brace E, the bar A and lever H, pivoted to the upright, and the saw S, connected to the lower end of the lever, all substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

MARVIN O. SMITH.

Witnesses:

R. A. STALEY,
FRANK JOHNSON.