(No Model.)

A. J. TROEGER & F. M. L. SCHNEIDER.

HAND SAWING MACHINE.

No. 454,308. Patented June 16, 1891.

FIG. 1.

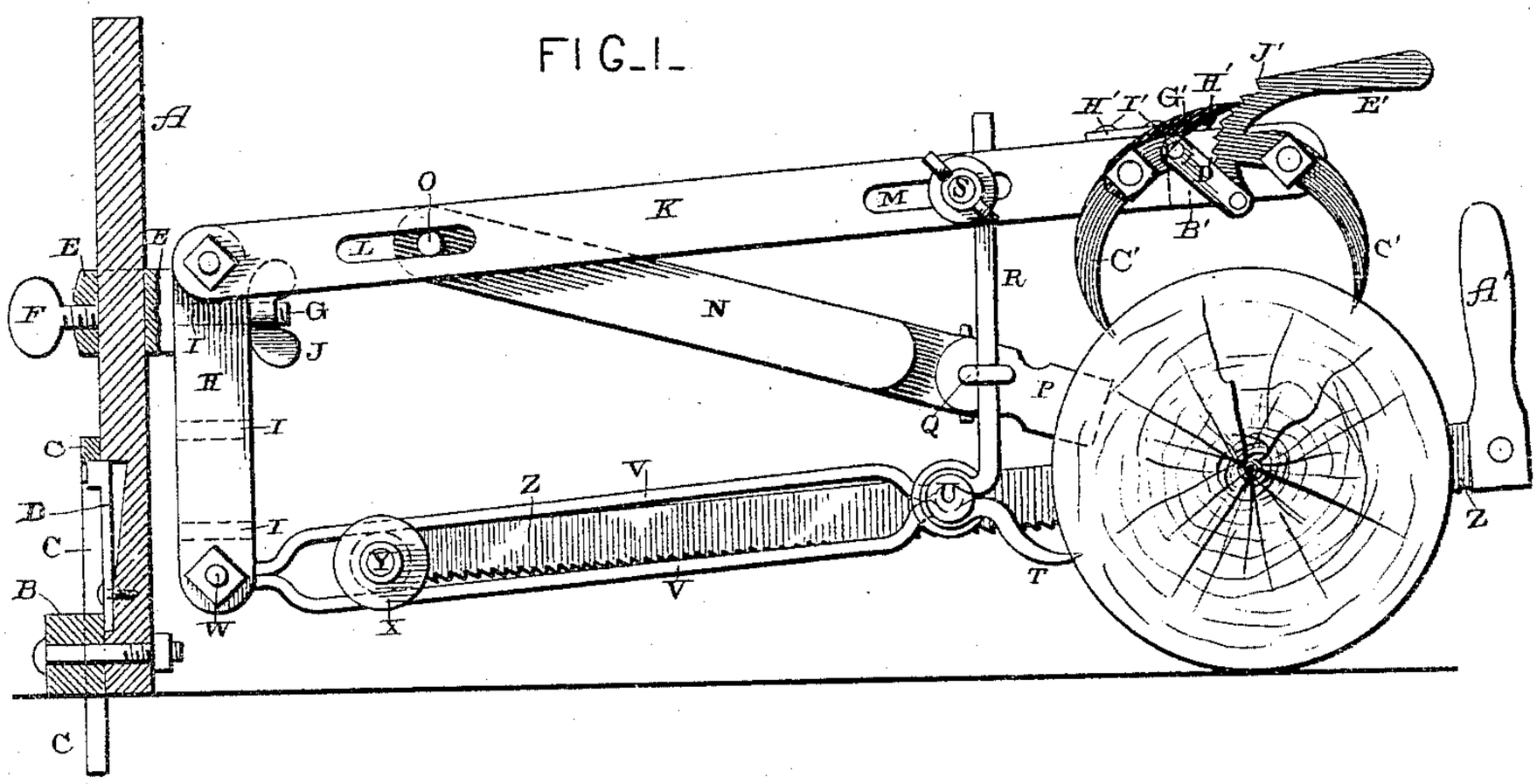


FIG. 2.

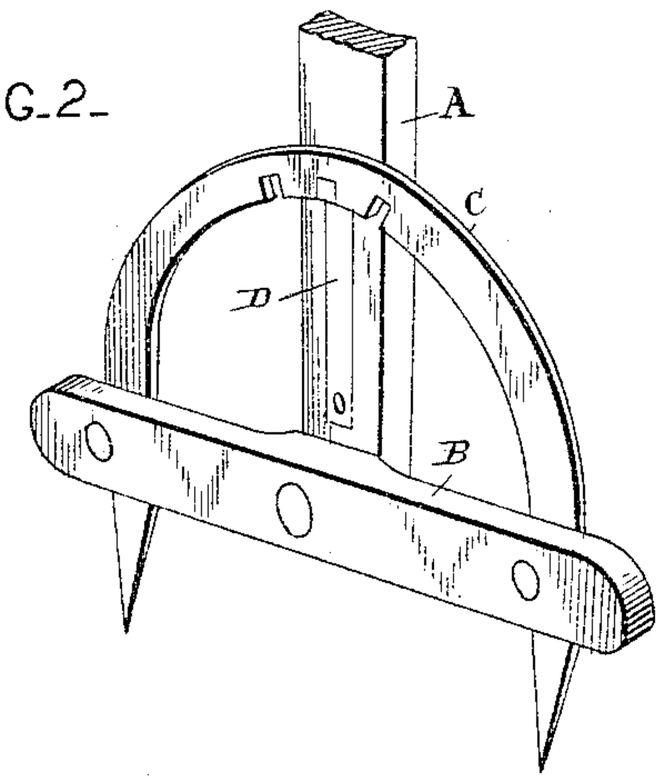
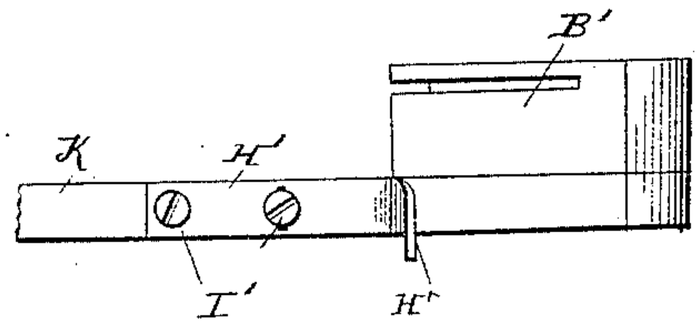


FIG. 3.



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UNITED STATES PATENT OFFICE.

ADAM JOHN TROEGER AND FRED M. L. SCHNEIDER, OF LUTHERVILLE, ARKANSAS.

HAND SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 454,308, dated June 16, 1891.

Application filed November 15, 1890. Serial No. 371,556. (No model.)

To all whom it may concern:

Be it known that we, ADAM JOHN TROEGER and FRED M. L. SCHNEIDER, of Lutherville, in the county of Johnson and State of Arkansas, have invented certain new and useful Improvements in Hand Sawing-Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in hand sawing-machines; and it consists in the construction and arrangements of parts, which will be fully described hereinafter.

The object of our invention is to provide a machine of the construction hereinafter described and shown, whereby it can be readily folded for transportation or storage and adapted to saw vertically, horizontally, or at any angle desired.

Figure 1 is a side elevation of a machine which embodies our invention, partly in section. Fig. 2 is a detached perspective view of the lower end of the standard and its attachments. Fig. 3 is a detached plan view of the outer end of the beam, showing the anvil connected thereto.

A indicates a vertical standard, to the lower end of which is pivoted a horizontal bar B, and connected to the bar B is a semicircle C. This semicircle is provided with a series of notches, into which a spring-catch D upon the standard A catches for the purpose of supporting the standard at any desired angle to the bar B. The ends of the semicircle C extend below the bar B, and are designed to enter the ground and thereby prevent the bar B from slipping and to hold the lower end of the standard firm while the machine is in operation. By means of this adjustment the standard can be supported in a perpendicular position upon uneven ground.

Passing around the standard A is a socket E, and this socket is secured in any desired position upon the standard by means of a set-screw F. Extending from one side of the socket E is a screw-threaded rod G. Placed upon this rod G is a short supporting-bar H, which is provided with a vertical series of perforations I, through which the rod G passes. By means of this construction the bar H can be adjusted vertically, turned at any desired angle, and secured in the adjusted position by means of the thumb-nut J.

Pivotally connected to one end of the bar H is the beam K, of any desired length, to the outer end of which is attached a clamp for securing it to the object being sawed. This beam is provided with a longitudinal slot L near its inner end and a longitudinal slot M near its outer end. The inner end of an arm N is pivotally and longitudinally adjustably secured to the inner end of the beam K by means of a bolt O, which passes through the inner end of the arm N and the slot L. Connected to the outer end of this arm is a wedge P, which is inserted into the cut made by the saw. Passing through this wedge P is a clamping-bolt Q, which clamps a rod R at one end, and which rod is clamped to the beam K by means of a bolt S, which passes through the beam-slot M of the said beam. The lower end of this rod R is formed into a point P, which is driven into the log being sawed.

Passing through the lower end of the bar R is a bolt U, which secures the outer end of a guide V to the rod R, the opposite end of the guide being secured to the standard H by means of a clamping-bolt W, which passes through the standard and the inner end of the guide.

Placed between the upper and lower portions of the guide V is a grooved wheel X, through which passes a rod or axle Y, to one end of which a saw Z is clamped in any desired manner. To the opposite end of the saw a handle A′ is secured and by means of which the saw is reciprocated. When not in use, the outer end of the saw is supported by means of a laterally-extending block B′.

To the outer end of the beam K is attached a combined clamp and saw-set, which consists of the two circular pointed arms C′, which are pivoted to the side of the beam between their ends. Connected preferably to the upper end of the inner arm C′ is a link D′, and rigidly

secured to the upper end of the outer arm is a handle E′, which curves outward, as shown. The inner end of the handle preferably extends slightly below the upper end of the outer arm, as shown, and has connected thereto the opposite end of the connecting-link D′. Formed in the inner edge of the handle are ratchet-teeth with which a pawl G′ engages for preventing the lower ends of the arms from separating after they have been forced into a log or other object by forcing the handle outward. Secured to the upper edge of the beam adjacent to the clamp is an anvil H′, which is secured to the beam by means of the screws I′. Formed upon the handle is a projection J′, which engages the outer end of the anvil when forced inward. By means of this construction the saw is laid upon the screws and outer end of the anvil, and then by forcing the handle inward the tooth is set. The amount of set is regulated by unscrewing one of the screws I and thus raising it, as will be readily understood.

As will be seen, all parts of the saw can be folded in a line by detaching the rod R from the beam and the arm.

The object of attaching all of the mechanism to a supporting-bar H, as shown, and attaching this to the supporting-standard A, as before described, is to enable it to be raised and lowered to suit the thickness of the log being sawed, and to enable the saw to be turned at any desired angle or placed in a horizontal position for sawing vertical objects, such as felling trees, &c.

Having thus described our invention, we claim—

1. In a sawing-machine, a supporting-standard, a socket vertically adjustable thereon having an inwardly-projecting horizontal pivotal bolt, a supporting-bar having a transverse opening for the reception of the pivotal bolt, a beam and a saw-guide connected, respectively, to opposite ends of the said bar, and a saw, the parts combined substantially as described.

2 In a sawing-machine, a supporting-standard, a supporting-bar having a transverse pivotal perforation, a horizonzal pivotal bolt connected to the standard and entering the said pivotal perforation, a beam pivotally connected at its inner end to the swiveled standard, a vertical rod connected at its upper end to the beam near its outer end, a saw-guide connected at its inner end to the swiveled standard and at its outer end to the lower end of the rod, and the saw, the parts combined substantially as shown.

3. In a sawing-machine, a standard, a supporting-bar, a beam pivoted at its inner end to the said bar, a depending rod clamped to the beam near its outer end, a saw-guide connected at its inner end to the standard and at its outer end to the lower end of the said rod, an arm adjustably connected at its inner end to the beam near its inner end, the outer end of the arm being connected to the rod, a wedge projecting from the outer end of the arm, and a saw, the parts combined substantially as described.

4. The combination, in a sawing-machine, of a support, a beam connected thereto, a plate secured to the outer end of the beam having a laterally-extending projection, two pointed arms pivoted between their ends to the side of the beam at opposite sides of the said projection, a link connecting them, one of the arms having a handle provided with a shoulder which engages the projection, the parts combined substantially as shown, and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

ADAM JOHN TROEGER.
FRED M. L. SCHNEIDER.

Witnesses:
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