

H. HUGHES.
 Drag-Sawing Machine.

No. 212,702.

Patented Feb. 25, 1879.

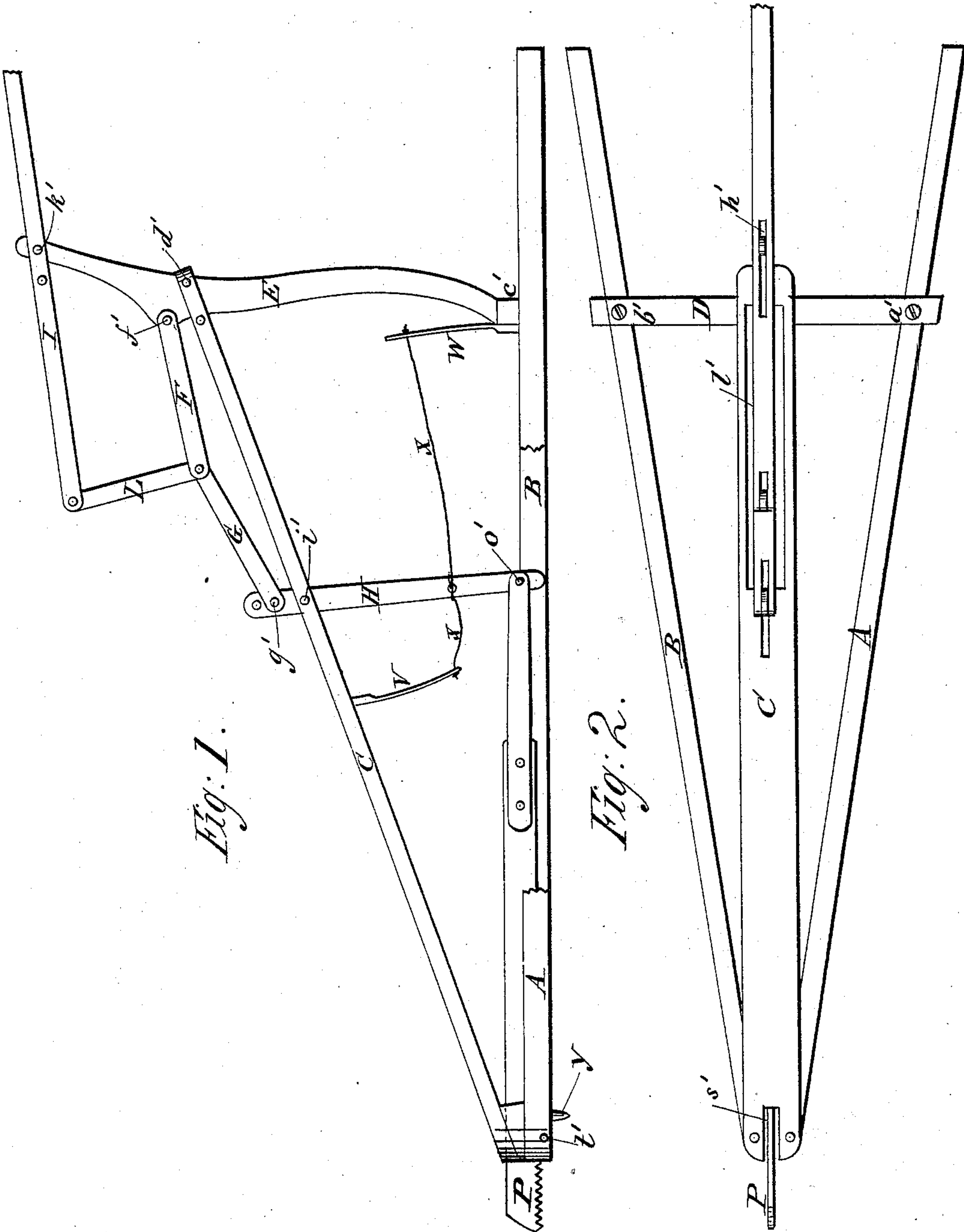


Fig. 1.

Fig. 2.

WITNESSES:

Achilles Seehel.
 C. Sedgwick

INVENTOR:

H. Hughes
 BY *Munn & Co*
 ATTORNEYS.

UNITED STATES PATENT OFFICE.

HARVEY HUGHES, OF WHEAT RIDGE, OHIO.

IMPROVEMENT IN DRAG-SAWING MACHINES.

Specification forming part of Letters Patent No. **212,702**, dated February 25, 1879; application filed December 20, 1878.

To all whom it may concern:

Be it known that I, HARVEY HUGHES, of Wheat Ridge, in the county of Adams and State of Ohio, have invented an Improvement in Drag-Sawing Machines, of which the following is a specification:

Figure 1 is a side elevation. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

The object of this invention is to operate a cross-cut saw through the agency of a toggle-joint and springs, and to so adjust them with reference to the saw as to best secure the object intended.

The frame-work is composed of three pieces or legs, A, B, and C, forming a tripod, of which A and B are the longer legs and C the shorter one of cross-piece D, fastened at *a'* and *b'* to legs A and B, and of upright standard E, with foot secured to cross-piece D at *c'*, and firmly held in position as it passes up through a cut in leg C by pin or bolt *d'*. Arm F of the toggle-joint is pivoted at *f'* to standard E, and arm G is pivoted at *g'* to one end of lever H, which passes through a narrow slot, *h'*, in leg C, and has for its fulcrum the pin *i'*.

Motion is imparted to the toggle-joint through the action of the lever I, which is pivoted at *k'*, and its pendent and swinging arm L; and in leg C is a broad slot, *l'*, which permits the unobstructed downward movement of the toggle-joint.

To the lower end of lever H the saw P is pivoted at *o'*, and it extends and is movable through slot *s'*, made at the junction of the three legs of the tripod. The pin *t'* supports the saw-blade in its horizontal position.

It is obvious that a proper application of power to the lever I will give a rapid sawing motion to the saw P, and that economy of labor as well as a most efficient way of applying power to the saw will be secured by this mechanism. The springs V W, of elastic wood or metal, serve, through the medium of cord X, which is secured to the lever H, as shown, to greatly assist in urging forward and retracting the saw when it is in operation.

The pins Y serve to hold the apparatus in position upon or against any object when the saw is at work.

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

The combination, with a saw arranged in the slot *s'* of the tripod-frame, of the lever I, pivoted to standard E, the arm L, the toggle F G, and the lever H, as and for the purpose specified.

HARVEY HUGHES.

Witnesses:

R. S. BLACKIE,
H. H. BROWN.