

M. E. WELLER.

Jig-Saws.

No. 143,650.

Patented Oct. 14, 1873.

Fig. 1.

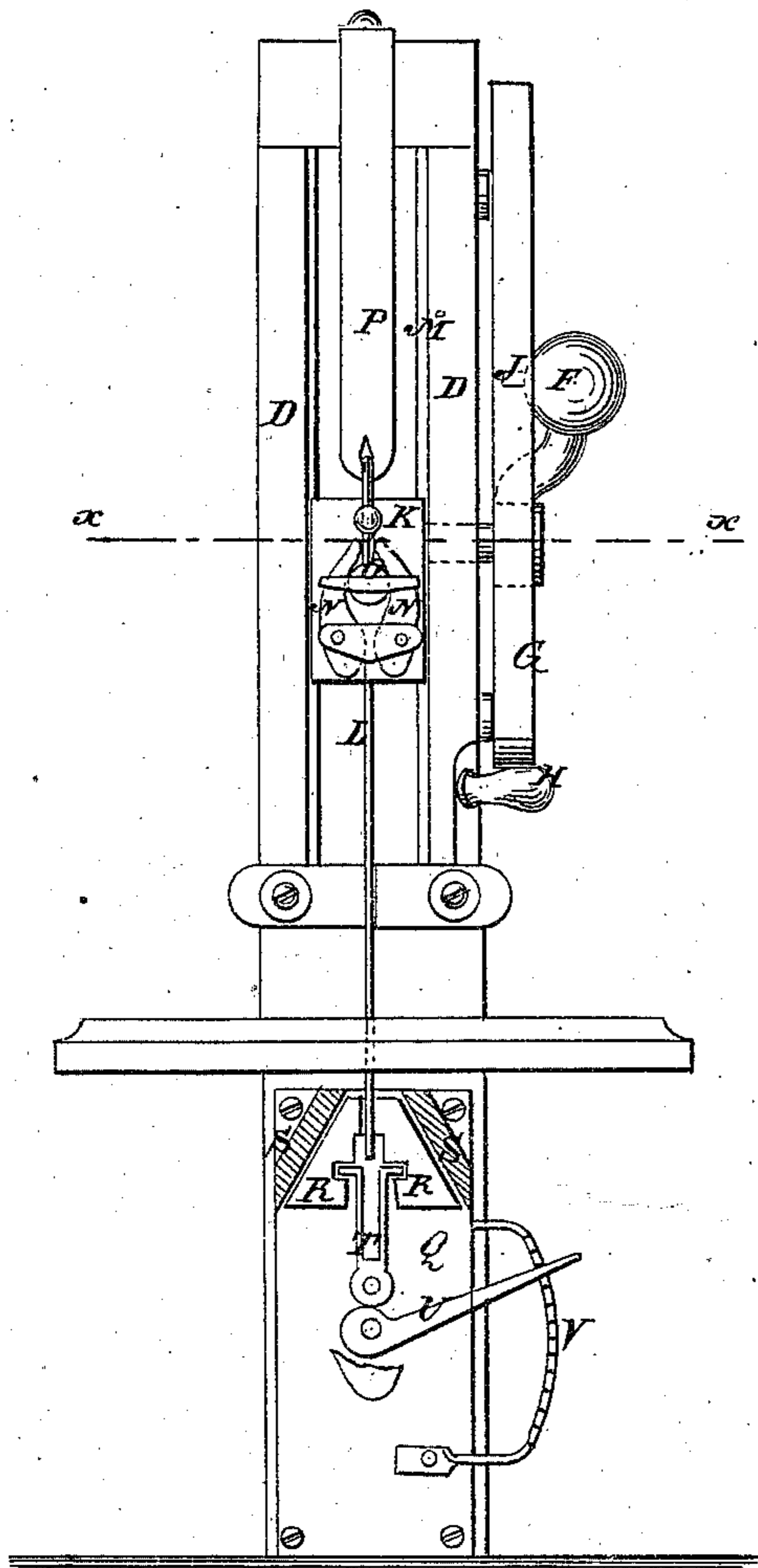


Fig. 2.

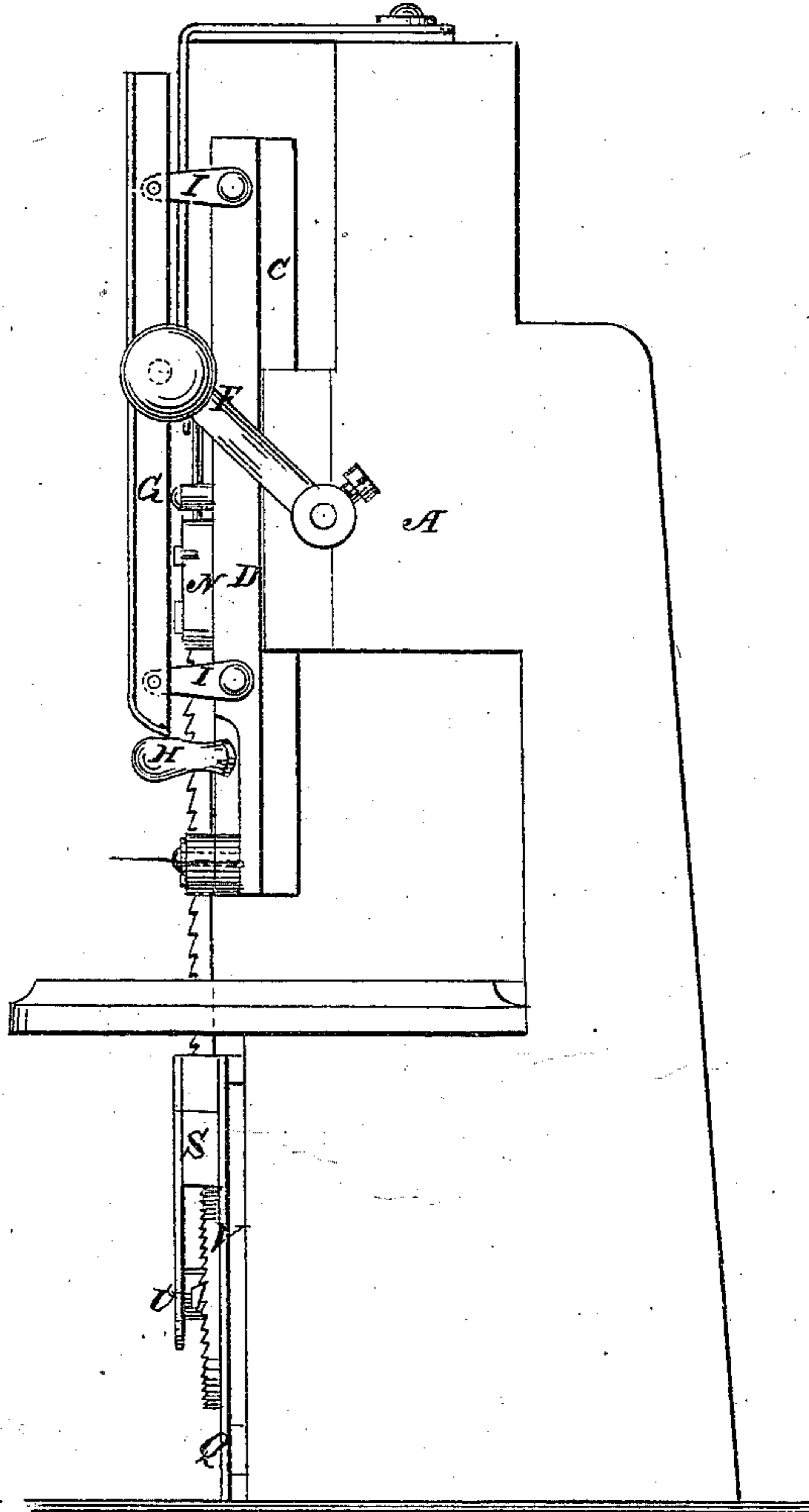
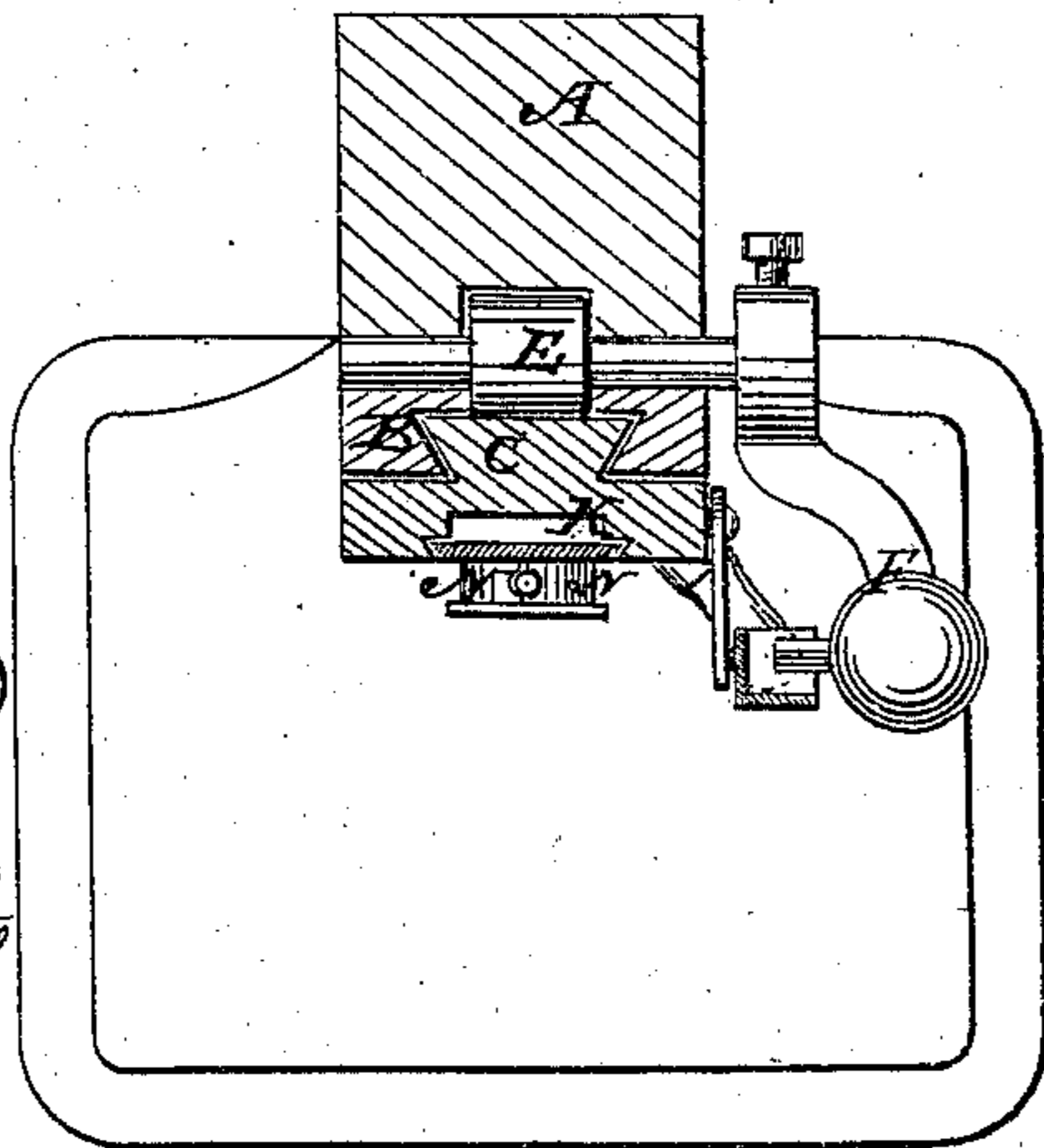


Fig. 3.



Witnesses:

Chas. Nida.
Alex. F. Roberts

Inventor:

M. E. Weller
Per Mumford
Attorneys.

UNITED STATES PATENT OFFICE.

MARVIN E. WELLER, OF FORT PLAIN, NEW YORK.

IMPROVEMENT IN JIG-SAWS.

Specification forming part of Letters Patent No. 143,650, dated October 14, 1873; application filed August 16, 1873.

To all whom it may concern:

Be it known that I, MARVIN E. WELLER, of Fort Plain, in the county of Montgomery and State of New York, have invented a new and Improved Jig-Saw, of which the following is a specification:

The invention will first be fully described, and then clearly pointed out in the claims.

Figure 1 is a front elevation of my improved jig-saw with a part sectioned. Fig. 2 is a side elevation, and Fig. 3 is a horizontal section on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the frame or upright, in the front of which is a vertical dovetail groove, B, in which a corresponding rib or tongue, C, on the adjusting-plate D, fits to control said plate in adjusting it up and down, and to hold it by. For the latter purpose an eccentric cam, E, is arranged in a little recess in the upright A, behind the tongue C, with a shaft extending beyond the upright at one side, and provided with a weighted arm, F, which, when it falls, causes the eccentric to bear the tongue C against the walls of groove B with sufficient force to bind it fast.

In order to lift the weighted lever, and unfasten the plate D by the hand used for adjusting said plate, and at or just before the time of adjusting it, I have provided the vertical bar G, above the handle H, by which the plate D is shifted, extending along each side of the weight and on the pivoted arms I, so that it can be raised readily by the thumb while holding the plate D by the handle H, and I have provided the weight with a stud-pin, J, against which the bar swings when so pushed up, and lifts the weight and releases the rib C from the pressure of the eccentric, which frees the plate D, so that it can be shifted up or down. The bar G, being connected to the plate D, moves up and down with it and the handle H, so that the eccentric can be held free of plate D by the same means while the said plate is adjusted. Thus only one hand is employed for these two purposes, and the other is free to do other things necessary to be done at the same time.

K is the upper cross-head or slide, to which the upper end of the saw L is connected. It works in the ways M, on the plate D, and carries a couple of gripping-jaws, N, pivoted

near their lower ends, and curved outward, and then backward, nearly together at their upper ends to provide room for the ball O between them, to which the spring P is connected. The upper end of the saw, having a slight head upset on it, is placed between the said jaws at the lower ends, and the spring P is hitched to the ball, so as to pull it upward between the upper ends of the jaws, which forces the lower ends to gripe the saw and hold it with great force. The lower cross-head Q has two sliding jaws, R, between two inclined plates, S, and a double spring, T, connected with said jaws, and extending down to the eccentric lever U. The saw, also having a small head upset on the lower end, is placed between the jaws R at their upper ends, and they are forced up by the two levers between the inclined plates, and thereby forced hard against the saw. The eccentric lever is held fast by springing into the notches of the ratchet-bar V.

These modes of fastening the saw are very simple, and allow of changing the saws with but very little labor and loss of time. Moreover, if a saw breaks near the end it can be readily fastened again by hammering up a small head, and clamping it between the jaws as before.

This is a decided advantage over the mode of fastening with a pin going through the saw, because the labor of preparing a hole in a tempered saw-plate is considerable; besides it cannot be done at all when the blade is worn down narrow, whereas it makes no difference how narrow the blade is for fastening it by my plan.

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

1. The plate D having handle H, and the bar G connected with said plate by pivoted arms I, combined with arm F having the stud J, as and for the purpose set forth.

2. The spring T, and lever U, and rack V, when combined with jaws R R, movable against inclines S S, as and for the purpose specified.

MARVIN E. WELLER.

Witnesses:

H. C. HIX,
A. A. MILLER.