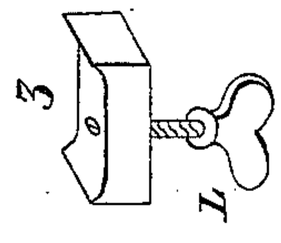
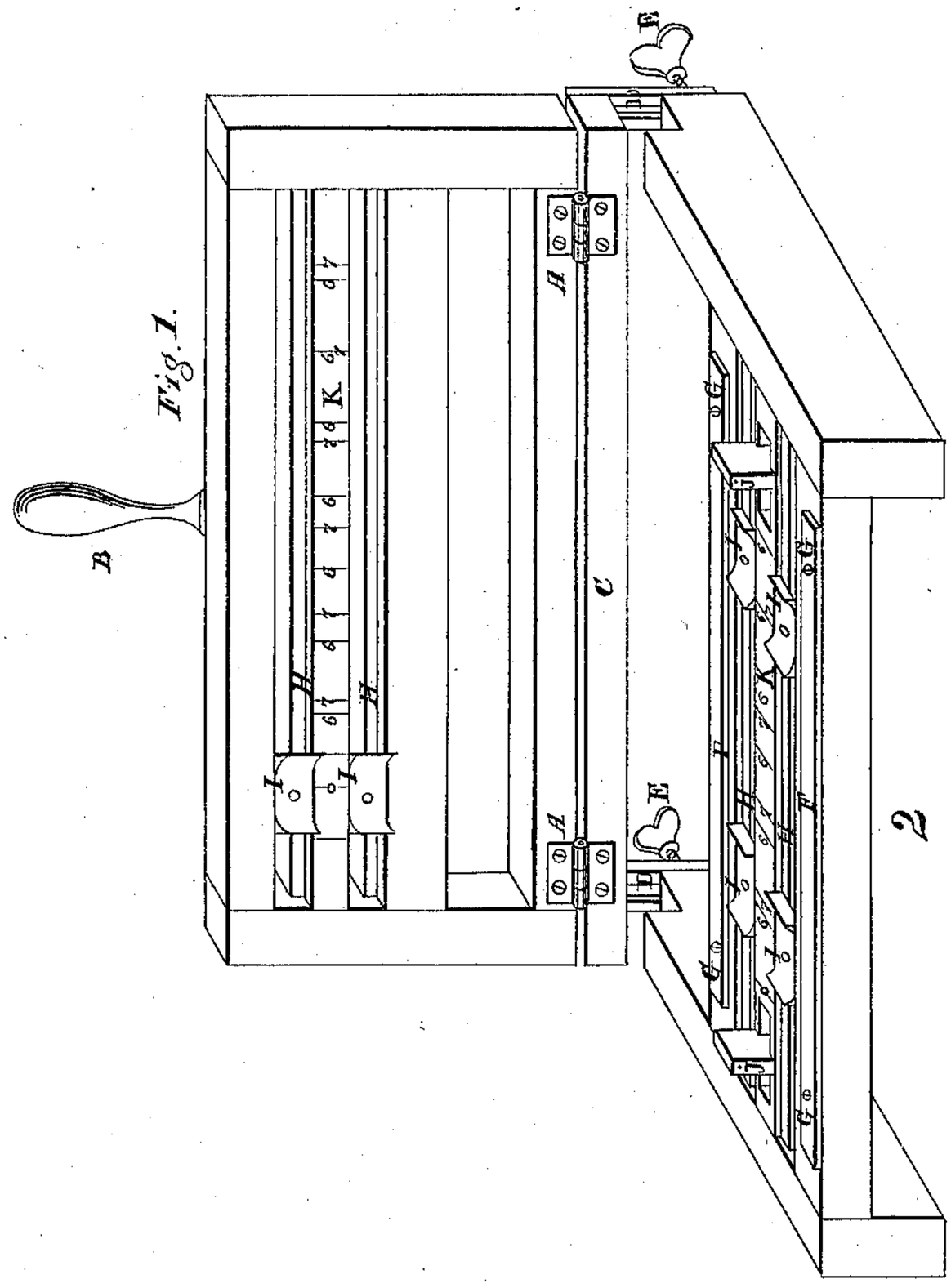
J. Rogers,

Mortising Sash, &c.

No. 10,895. Patented May 9, 1854.





Witnesses

J. Richardson

J. R. McNutt

Inventor

James Rogers

AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

JAMES ROGERS, OF POULTNEY, VERMONT.

MACHINE FOR MARKING OUT SASH.

Specification of Letters Patent No. 10,895, dated May 9, 1854.

To all whom it may concern:

Be it known that I, JAMES ROGERS, of Poultney, in the county of Rutland and State of Vermont, have invented a new and useful Machine for Setting Out the Heads of Mortises in Sash and other Small Work, which may be called a "Setting-Out Machine"; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a view of the top of the machine, Fig. 2 of the bottom, and Fig. 3 of a movable knife or marker.

In Fig. 1, B is a handle by which the machine is worked. C bar connected to the top by hinges A A. D D iron slides attached to the bar C and to Fig. 2 by the thumbnuts. E E in Fig. 2. F F in Fig. 2 movable slides, G G G G set screws, J J movable stops, H H H H in Figs. 1 and 2, grooves for I, I, I, I, I, I, the movable knives or markers. K K scale. Fig. 3 movable knife or marker. L thumb screw.

The nature of my invention consists in setting out the heads of mortises in sash or other small work with two or more mortises in each piece and two pieces at the same time and upon both sides with the same motion.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A convenient sized machine for common use is one foot wide by $3\frac{1}{2}$ long. See the drawing Fig. 1, A C K and K. Fig. 2 are $1\frac{1}{4}$ inches square and the remainder of the bars are the same thickness and 2 inches wide. In Fig. 1 the end pieces are 2 inches wide and the same thickness as the bars. In Fig. 2 the end pieces are 2 inches thick and 5 inches wide; they are made wide to admit the iron plates D D with slots in them to slide up and down passing each side of the screws attached to Fig. 2 to which screws the thumbnuts E E are attached. The iron plates D D are attached to the bar C and the bar C to the top by means of the hinges A A. Thus the top can be raised or lowered to admit any desired width of stuff and made fast in the proper position by the thumb nuts E E so that when the top strikes upon the pieces to be set out or marked it will be parallel with the bottom. H H H H are grooves in Figs. 1 and 2 in which the movable knives or markers are placed, which I make half of an inch wide and three eighths of an inch deep. The knives or markers make as wide as will slide in the grooves $\frac{1}{2}$ of an inch deep which allows them to project beyond the surface of the machine $\frac{1}{8}$ of an inch and as long as I wish the mortise to be or use two markers for one mortise, which are held in the desired spot by means of thumb screws. Fig. 3 shows the form of a marker, which are made of steel with a thumb screw L attached. Fig. 2 F F are movable slides with slots through them, through which the set screws G G G G pass, which are varied to admit of thick or thin stuff and hold it in the proper position for setting out. J J are movable stops and are held in the required spot by thumb screws passing through slots in K. Upon K K, Figs. 1 and 2 are set out scales for all sizes of sash all of which start at 0 and laying out to the right hand; thus, I commence at 0 and mark off $5\frac{11}{16}$ inches (the odd $\frac{1}{16}$ being an allowance for the variation in glass) as many times as the machine will receive it, with the addition after the first space of $\frac{9}{16}$ of an inch (which is the size of the markers and also mortise for the inside work). I stick my sash stuff $\frac{3}{16}$ of an inch deep, thus it will be seen that after the stuff is stuck it will leave a space for glass and allowance $6\frac{1}{16}$ inches. Thus I lay out $6\frac{11}{16}$ inches, $7\frac{11}{16}$ inches &c. The marks are numbered on the scale 6—7—8—9—&c, which will give sash for those sizes of glass. In setting the machine for use, I place the first set of knives or markers the left hand side of 0 the right hand end corresponding with the line 0 and all others the right hand side of the marks. For instance if I wish to set out 8 by 10 casement of sash I place the first set of markers to the left hand of 0 and pass along on the scale until I come to 10 and place another set the right hand side of the line and so on, which will set out the stiles. After the knives or markers are set I place one of the movable stops, Fig. 2 J J as far from one of the outside set of markers as I wish the mortise to be from the end of the stuff. The machine being thus set I place two pieces of stuff upon Fig. 2 between F F and against J and by bringing the top quickly upon it the marking is done, rails and bars are set out for mortising after being tenoned. The out-

side markers are moved back and one of the movable stops J are placed $\frac{3}{16}$ of an inch to the left of 0, and place the markers as before wherever I wish a mortise and against the other shoulder bring up the other movable stop, which holds the stuff firm.

What I claim and wish to secure by Letters Patent is—

Movable knives or markers, movable stops and slides or their equivalent and manner of adjusting the top, and of causing markers in the top to correspond with the bottom markers and manner of applying the scales to the machine, substantially as herein set forth.

JAMES ROGERS.

Witnesses:
JAMES RICHARDSON,
J. JOSLIN.