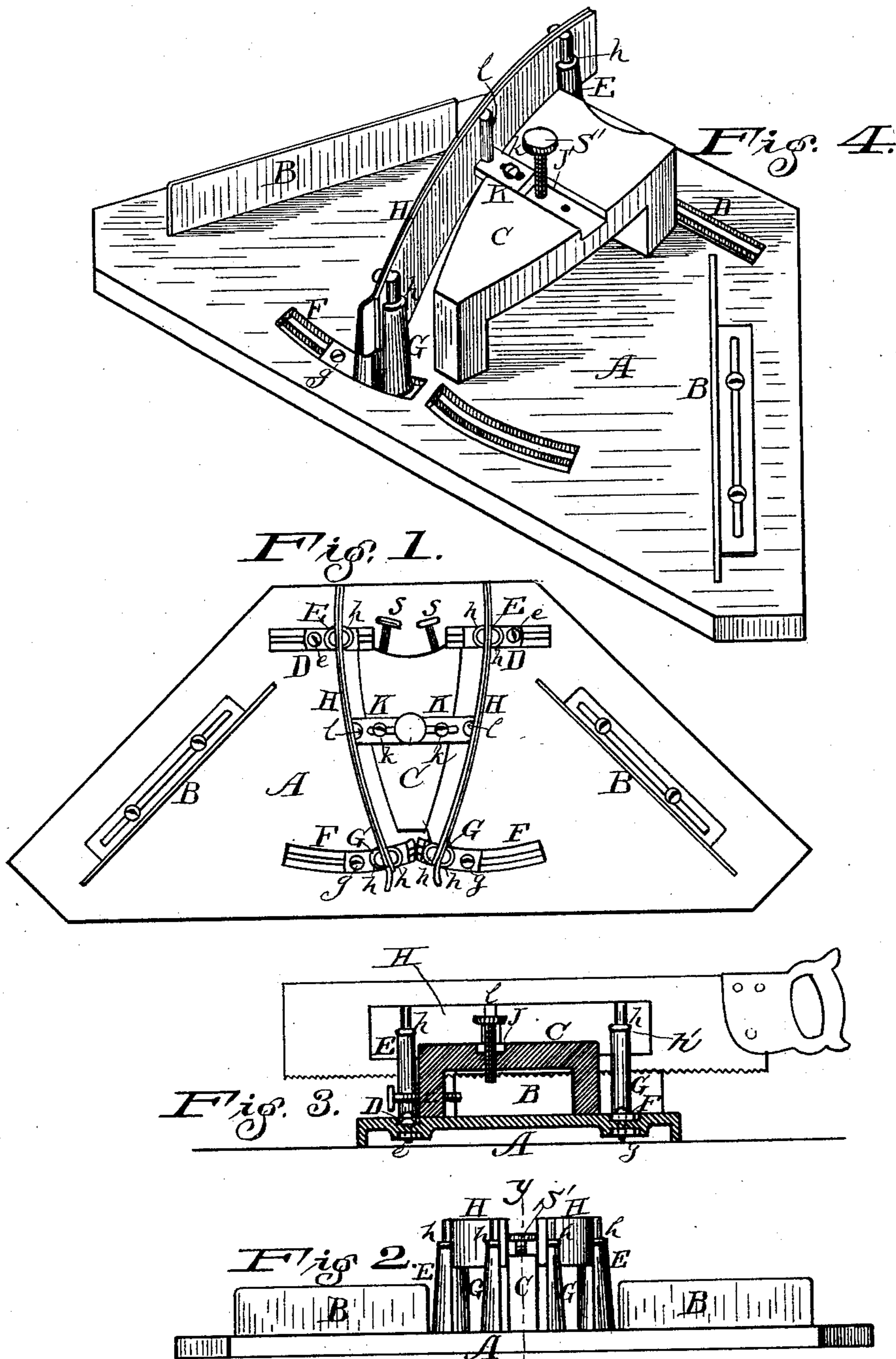


(No Model.)

S. WALLER.
MITERING MACHINE.

No. 360,630.

Patented Apr. 5, 1887.



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UNITED STATES PATENT OFFICE.

SAMUEL WALLER, OF CLEVELAND, OHIO.

MITERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 360,630, dated April 5, 1887.

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To all whom it may concern:

Be it known that I, SAMUEL WALLER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Mitering-Machines, of which the following is a specification.

This invention relates to machines for sawing miters either on straight or curved lines, or miters and bevels; and it consists in the novel construction and arrangement of the saw-guides and mechanism for adjusting said guides at various curves and angles suitable for the work to be performed.

To enable others to fully understand my invention, I proceed to describe the same in detail with the aid of the accompanying drawings, in which—

Figure 1 is a top or plan view of my machine. Fig. 2 is a front elevation of the same. Fig. 3 is a cross-section on line *y y* of Fig. 2. Fig. 4 is a perspective view of the machine, showing one of the saw-guides removed to exhibit the bridge and to show the split posts.

A represents the bed of the machine supporting all the working parts. It is preferably made of iron for solidity and freedom from liability to warping or splitting, and is triangular in form.

B B are adjustable and removable guides, against which the moldings or strips to be sawed are placed and held.

Across the central part of the bed is fixed a flat-iron-shaped bridge, C, its center line being at an angle of forty-five degrees to the aforesaid guides B B. The sides of said bridge are curved, as shown in Fig. 1, the object for which is to permit the saw-guides to be bent or curved, by drawing and fixing their front ends toward each other in adjusting said guides to any required curved line without the bridge interfering therewith.

Near the rear side of the bed, and at the heel of the bridge, are made two slots, D D, in which are adjustably fixed posts E E, their bases being secured by means of set-screws *e e*. At the front side of the bed and at the toe of the bridge are made two curved slots, F F, in which are adjustably fixed posts G G. The posts are split from their tops down to the bases to provide a space for the saw to play in. The posts G G are adjustably secured in the slots, by means of set-screws *g g*, in like manner to the posts E E. To the top part of the posts are attached thin sheet-metal flexible saw-guides H H, consisting of two strips

fixed in the split and held in position by means of loops *h h*, attached to said strips and embracing the top parts of the posts, resting on shoulders *h'* thereon. Across the top of the bridge is made a slot, J, in which two slotted brace-pieces, K K, are adjustably secured by means of set-screws *k k*, the upright arm *l* of said brace-pieces bearing against the inside surfaces of the said flexible strips H H. By this means the saw-guides may be bent or curved to conform to any degree of curvature required to saw a given curved joint. The saw playing in between the said strips enables the workman to readily adjust the guides to make a perfect cut.

The molding or piece to be sawed is placed against one of the guides B B for sawing a common miter. In the heel of the bridge-piece are placed two screws, S S, the purpose of which is to provide adjustable bearing, against which a short piece of molding rests, for the purpose of sawing an octagon miter, the guides B being removed to make room, and in the top of the bridge is placed a vertical screw, S', designed to provide a stop or pressure-bearing to hold the piece firmly in place while being sawed.

From the foregoing it will be seen that the saw-guides may be set to any required degree of curvature by setting the forward posts at the given point in the curved slots, a scale in connection with said slots readily enabling the proper degree to be found, and the brace-pieces K K adjusted to spring the flexible strips H H outward to suit the curve, whereby a curved cut may be made with the saw, or the said saw-guide pieces may be set in a straight line for sawing a straight miter, at the pleasure of the operator.

Having described my invention, I claim—

The combination, with the bed-plate A, provided with the adjustable guides B B, and having the slots D D and F F, of the split posts E E and G G, adjustably fixed in said slots and carrying the flexible saw-guides H H, and the bridge C, provided with the cross-slot J, having the adjustable brace-pieces K K, all constructed and arranged substantially as described, whereby the said guides may be adjusted to straight and curved lines, as and for the purpose specified.

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