J. L. GAUSE.

Machines for Cutting Miters.

No. 155,646. Patented Oct. 6, 1874.

Fig. 1.

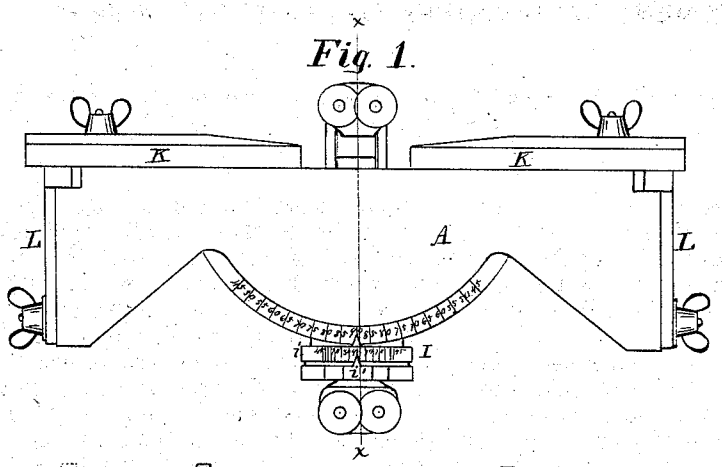


Fig. 2.

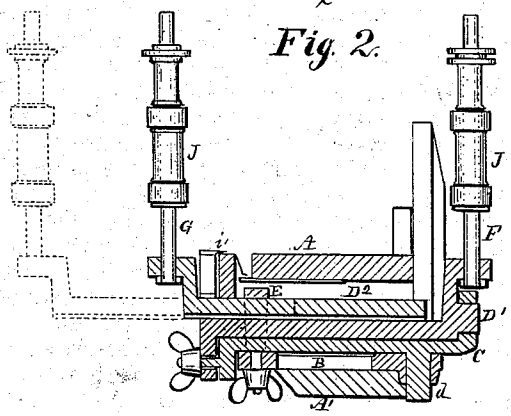
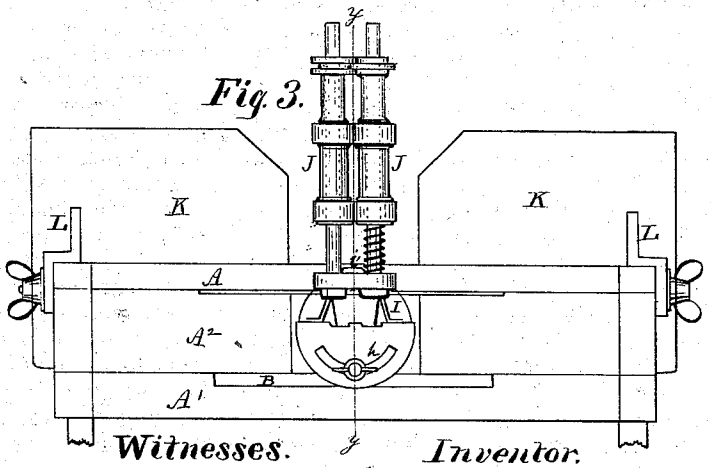


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN L. GAUSE, OF CLEVELAND, OHIO.

IMPROVEMENT IN MACHINES FOR CUTTING MITERS.

Specification forming part of Letters Patent No. **155,646**, dated October 6, 1874; application filed March 21, 1874.

To all whom it may concern:

Be it known that I, JOHN L. GAUSE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a Machine for Cutting Miters, of which the following is a specification:

This invention relates to a machine for sawing miters and miters on a bevel, said miters and bevels being indicated and obtained by the use of dials or graduated plates; and consists in certain improvements on my patent for miter-boxes, No. 147,764, dated the 24th day of February, 1874.

The invention consists in the novel construction and arrangement of the saw-guides, and mechanism for adjusting them extensibly and at various angles to the platform.

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

Figure 1 is a top or plan view of my machine. Fig. 2 is a cross-section in lines *x x* of Fig. 1, and *y y*, Fig. 3. Fig. 3 is a front elevation of the machine.

A represents the bed or platform of the machine, and consists of two boards, A A^1, between which are secured blocks A^2, leaving an open space between said boards at the middle, crosswise through from the front to the rear side. This makes a firm solid bed for the working parts. The front edges of said boards A A^1, in front of said opening, are curved, as seen in Fig. 1. To the upper side of said board A^1, in the said opening, is secured a socket-plate, B, having a curved front edge, near which edge is a curved slot, through which the neck of a clamp-ring, E, passes. C is a grooved bed for the divided rocking lever to lie in, and is pivoted to the plate B at *d*, and has bearings at each end for the rocking lever to turn in. D^1 is the lower half, and D^2 the upper half, of the aforesaid divided lever, it being in two parts, for the purpose of enabling it to be extended or elongated. The halves are provided with a tongue and groove to prevent them slipping apart sidewise. The clamp-ring E embraces these two halves, and, when screwed down, holds them firmly together. To the rear end of the lower half is made an ear, to which are secured two upright pins, F, which form the rear guides for a saw; also, to the front end of the upper half is made a similar ear, to which are secured two other upright pins, G, forming the front saw-guides. To the front end of the lower half of said lever is made a half-disk, having a curved slot, *h*, in it, and to the front end of the bed C is made a disk, I, having a screw passing through the slot *h*, with a thumb-nut for securing the rocking lever in position. Upon the upper periphery of disk I is a graduated scale, *i*, by which a pointer, *i'*, attached to a bail on the half-disk, enables the degree of bevel to be obtained in tilting the saw-guides. On the curved edge of the board A is fixed a dial for setting the bed C and lever at the desired angle for a miter. On the pins F F G G are placed metal rollers J J J J, made in pairs, the upper ends having tongued and grooved wheels, which run together, and thereby keep the two always on the same level. On the lower ends of said rollers are placed flexible bands, and midway between these and the top are two other flexible bands. Between the pairs of rollers a saw plays, and they are adapted for either a hand or back saw. Below each pair of rollers, on the pins, is placed a spiral spring, for the purpose of holding them up; but they readily yield and adapt themselves to the movements of the saw. The backs K K are slotted, and are held on by thumb-screws, and are adjustable. The end guides L L are also slotted, and are adjustable.

With these improvements the saw-guides may be extended, so as to readily adapt themselves to varying widths of moldings to be cut. The rollers J J also allow the saw to be guided in its first cutting, as well as when it has cut half-way or more into the piece it is cutting.

Having described my invention, I claim—

1. The divided extensible rocking lever D^1 D^2, in combination with the traveling bed

C, constructed as described, and adjustable therein by means of a ring, E, secured in a slot in plate B, substantially as specified.

2. The rollers J, constructed as described, in combination with the guide-pins F G and springs, as and for the purpose set forth.

3. The rollers J, constructed as described, in combination with the guide-pins F G, springs, and divided extensible rocking lever D^1 D^2, whereby said rollers may be adjusted at various distances, and at any angle, substantially as specified.

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Witnesses:
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