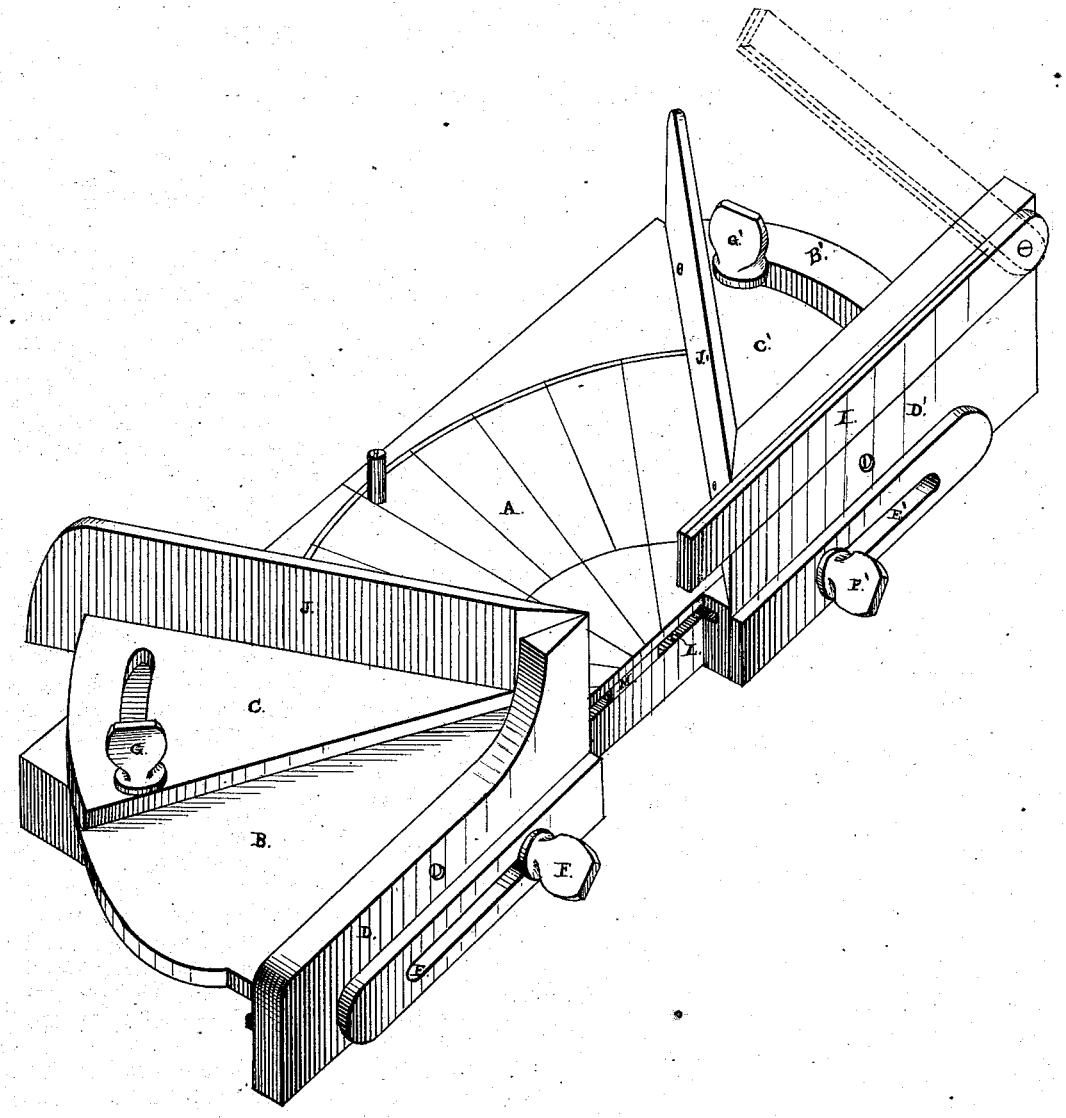
H. DITTENHAFER.

Miter-Box.

No. 161,014. Patented March 23, 1875.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY DITTENHAFER, OF BLOOMVILLE, OHIO.

IMPROVEMENT IN MITER-BOXES.

Specification forming part of Letters Patent No. **161,014**, dated March 23, 1875; application filed September 19, 1874.

To all whom it may concern:

Be it known that I, HENRY DITTENHAFER, of Bloomville, in the county of Seneca and State of Ohio, have invented a new and useful Improvement in Miter-Boxes, of which I declare the following to be a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification.

Figure 1 is a perspective plan view of said box.

The nature of my invention consists in constructing a portable miter-box, by means of which a molding or other object can be cut at any required angle by the use of the apparatus hereinafter described with certainty and ease.

The construction and operation of this improved miter-box are as follows:

I use for the bed-piece a strip, A, preferably of hard wood, two feet long by one foot wide, not less than one and one-half inch thick, and in the front edge of the same I insert two thumb-screws, F F, about twelve inches apart. Along the front edge of the bed-piece A is cut a groove, L, at the center of which is placed a stop, M, for holding the segment B B′ in proper relation to the pin H. On the bed-piece A are secured two segments of circles, B B′, provided with flanges D D′, which lap the front piece of the bed-piece A, and project above the segments C C′, and against which the segments C C′ rest when withdrawn. In the lower part of the flanges D D′ are cut elongated slots E E′, through which the screws F F′ pass. The segments B B′ are adjustable upon the bed-piece A. Upon the top of the segments B B′ are adjustably attached the segments C C′, having flanges J J′ secured to the inner edges thereof, and against which the material to be operated upon is placed. The segments C C′ are secured to any desired angle to the segments B B′ by means of the screws G G′, which pass through segmental slots in the segments C C′. The bed-piece A is provided upon its upper surface with a scale of angles. On the center line of this scale is inserted a pin, H, which rests upon a spring, and serves, when the edges of the flanges D D′ are in position, to cut a right angle. On the flange D′ is attached the saw-guide I, pivoted at its rear end to said flange.

I use a common tenon-saw, the blade of which I insert in the slit of the saw-guide I, which guide is then elevated on the pin fastened in the flange D′ while the work is inserted in the machine. The operator then brings down the saw and the guide together on the piece to be cut, and by the ordinary reciprocating motion of the saw the work is cut on the angle to which the machine may be set.

To the inner edges of B B′ are attached springs, for the purpose of retaining segments C C′ in position at the point of intersection in the guide I.

The operation of the miter-box is as follows: The segment C or C′ is adjusted to the required angle on the scale, and secured by the screw G or G′; then the screw F or F′ is loosened, and the segments B and C are slid back to give room for the molding or other material to pass through. Both segments B and B′ are adjustable in like manner. The saw is usually left in the guide I, and thrown upward out of the way, and lowered when the molding is inserted.

Having thus described the construction and operation of my said invention, what I claim, and wish to secure by Letters Patent, is—

The herein-described miter-box, consisting of the bed-piece A, segments B B′, provided with flanges D D′ having slots E E′, the set-screws F F′, saw-guide I, adjustably-slotted segments C C′ provided with flanges J J′, and set-screws G G′, all constructed and operating substantially as shown, and for the purpose specified.

HENRY DITTENHAFER.

Witnesses:

THOS. J. KINTZ,

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