R. A. WILLIAMS.

MITERING-MACHINE.

No. 171,899. Patented Jan. 4, 1876.

Fig. 1.

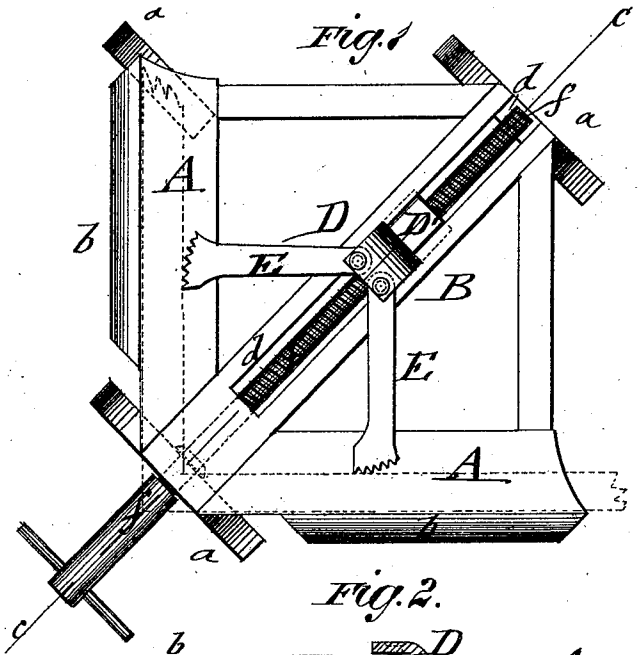



Fig. 2.

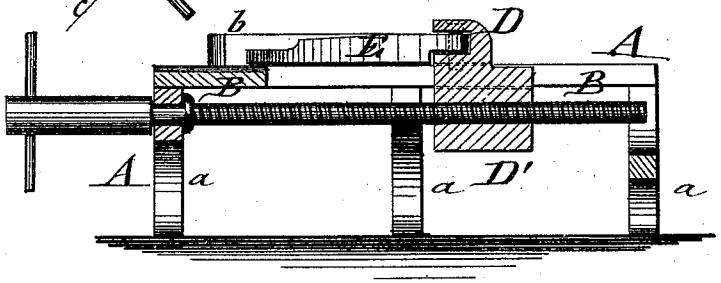
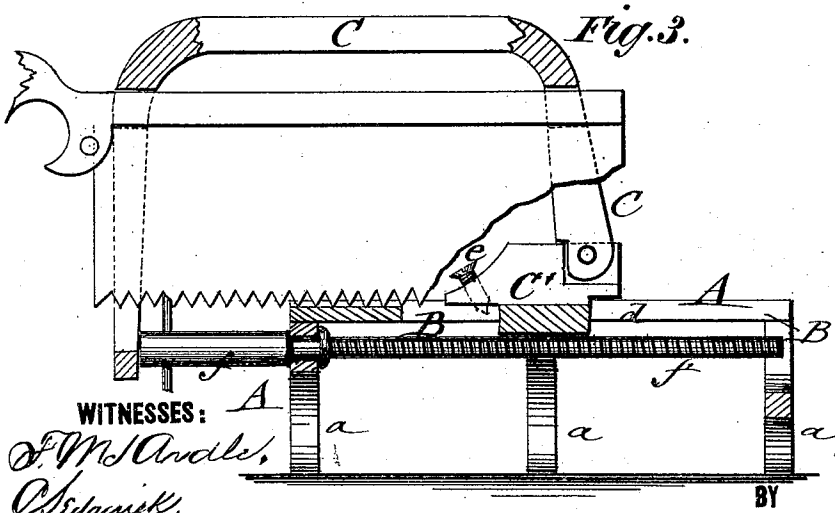



Fig. 3.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

ROBERT A. WILLIAMS, OF GALION, OHIO.

## IMPROVEMENT IN MITERING-MACHINES.

Specification forming part of Letters Patent No. **171,899**, dated January 4, 1876; application filed June 6, 1874.

*To all whom it may concern:*

Be it known that I, ROBERT A. WILLIAMS, of Galion, Crawford county, Ohio, have invented a new and Improved Combined Mitering and Frame-Setting Machine, of which the the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved mitering and frame-setting machine, as applied for setting a frame with the mitering device detached. Fig. 2 is a vertical longitudinal section of the same on the line C C, Fig. 1; and Fig. 3 is a similar section with the mitering-frame attached.

Similar letters of reference indicate corresponding parts.

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

In the drawing, A represents the supporting-frame of my improved machine for mitering and setting moldings, which is preferably of cast-iron, and of suitable size to make all sizes of square frames thereon. Frame A is made of square or rectangular shape, placed on strong legs *a*, and provided at the two adjoining front sides, with projecting guide-flanges *b* for supporting the moldings set against them. The flanges *b* extend only along a part of the length of the sides, leaving sufficient space near the vertex of right angle, and allowing the placing of moldings in position on the frame for mitering. The angle connecting diagonal piece B has a central guide-recess, *d*, open at the opposite end of piece B for the introduction of the mitering-frame C, and the frame-setting device D.

The mitering-frame C is constructed in the usual manner with slots for guiding the saw, and pivoted to adjustable slide-block C′, which may be carried in either direction on diagonal piece B, and either taken out by slipping it out or swinging it out of the way when setting the moldings in position for being connected. Previous to mitering the moldings or boards the slide-block C′ is firmly clamped to diagonal piece B by a set-screw, *e*. The frame-setting device D is guided in the recess of diagonal piece B in similar manner as the mitering-box by a sliding piece, D′, which is adjusted to the required position by a screw-bolt, *f*, turning in suitable bearings under the diagonal B, so as to carry sliding piece D′ in either direction. Several arms, E, are pivoted to the upper part of slide-piece D′, and grooved, notched, or otherwise roughened at the free broader ends, so that they may be firmly set against the under edge of the moldings to be connected without injuring them in the least. The moldings are joined by being placed, after mitering, along the flanged sides of the frame, and rigidly set by the arms E, to be then glued, nailed, or otherwise firmly connected. The frame is released by carrying the vise or fastening-arms in backward direction.

The accurate mitering and setting of the moldings may thus be produced by a very simple and easily-adjusted machine.

Should the molding be sprung or warped, so as not to make a perfect joint, it may easily be remedied by passing the saw through the miter, enabling the operator to use moldings which would otherwise be useless.

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

The combined mitering and frame-setting machine herein described, consisting of supporting-frame A, with diagonal recessed piece B, and flanged adjoining sides *b*, in connection with the detachable and adjustable mitering-box C, and frame-setting device D, being arranged, constructed, and operated substantially as set forth.

ROBERT A. WILLIAMS.

Witnesses:

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