(No Model.)

J. STILLY & J. H. LOWERY.

MITER MACHINE.

No. 308,213. Patented Nov. 18, 1884.

Fig. 1.

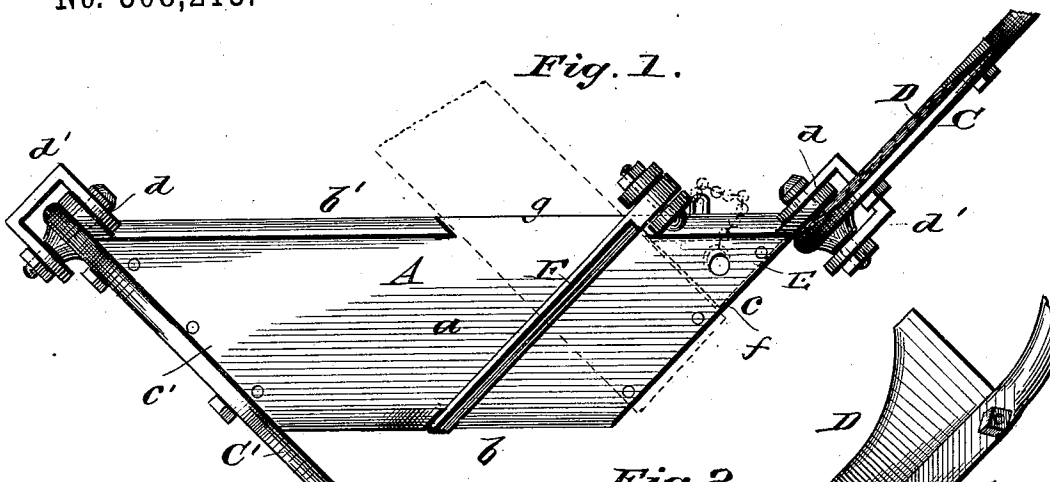


Fig. 2.

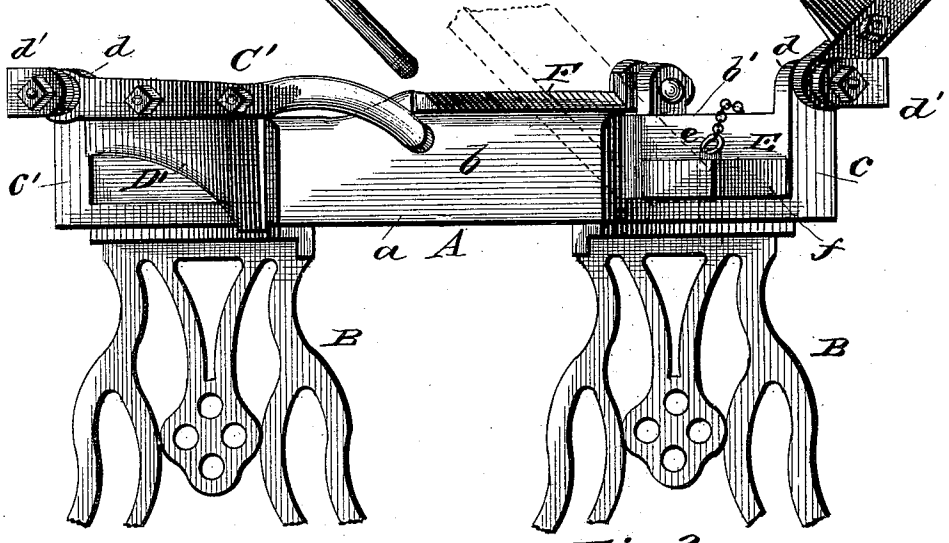


Fig. 3.

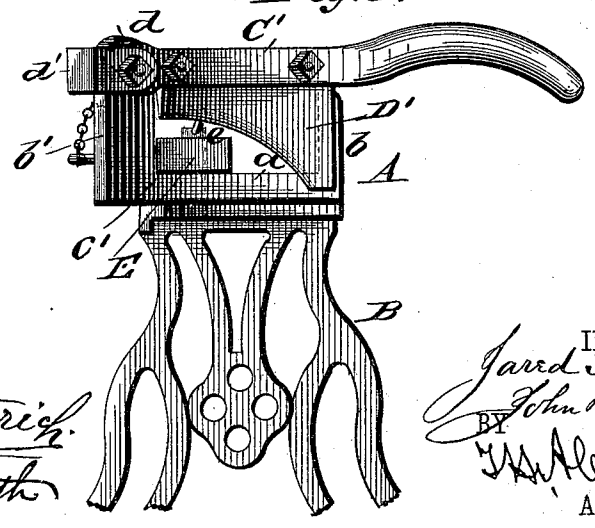
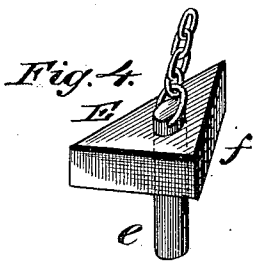


Fig. 4.



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JARED STILLY AND JOHN H. LOWERY, OF LEBANON, PENNSYLVANIA.

MITER-MACHINE.

SPECIFICATION forming part of Letters Patent No. 308,213, dated November 18, 1884.

Application filed September 18, 1884. (No model.)

To all whom it may concern:

Be it known that we, JARED STILLY and JOHN H. LOWERY, of Lebanon, in the county of Lebanon and State of Pennsylvania, have invented certain new and useful Improvements in Miter-Cutting Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a plan view of my improved mitering-machine, showing the knife for making a right-hand cut thrown back, and also indicating the block in dotted lines for guiding the molding while making a square cut. Fig. 2 is a front elevation of the machine, indicating a piece of stuff in position for making a side miter. Fig. 3 is an elevation of one end of the machine. Fig. 4 is a perspective view of the angular guide-block shown in dotted lines in Fig. 1.

This invention relates to machines for mitering moldings, especially such as are used for casings; and it consists in certain novel improvements in mitering-machines, whereby I am able to readily cut with a knife side and end miters, and also to cut squarely the ends of molding-strips, as will be fully understood from the following description, when taken in connection with the annexed drawings.

A designates the cast-metal mortising bed or box, which is represented in the drawings as solidly supported upon legs B B. This bed or box consists of a floor, *a*, and two sides, *b b'*, which are perpendicular to the floor. The right-hand end, *c*, of the bed A is mitered at an angle of forty-five degrees, and is designed for use in cutting right-hand miters. The left-hand end, *c'*, of the bed is similarly mitered, but arranged for convenient use in cutting left-hand miters. The left and right hand corners of the rear side, *b'*, of the miter-box are constructed with ears *d*, to which and to re-enforcing portions *d'* are pivoted the handles C C' of knives D D', which handles may be of any desired length and curve. The knife-blades D D' are rigidly but removably bolted to their handles, and the cutting-edges of these knives are curved longitudinally in such manner (shown in Figs. 2 and 3) that when they are forcibly brought down in the act of mitering a strip of molding they make a draw or shear cut, the cutting commencing at the front end of the knife. We thus produce a clean cut with the expenditure of very little power.

It will be observed by reference to Figs. 2 and 3 that when a knife is thrown back out of the way its handle will be supported upon the rear part of a re-enforcing portion, *d'*. The machine, as represented in Fig. 1, without the angular guide-block E, is adapted for right and left hand "square" mitering. To adapt the machine for side mitering, we employ the angular block E, which is constructed with a pin, *e*, having an eye on its upper end, which is attached to the back of the side piece *b'* of the miter-box by a chain, *e'*. When this angular guide is in the position indicated in dotted lines, Fig. 1, it is held by said pin *e* entering the floor of the miter-box, and when block E is in said position its front edge, *f*, is perpendicular to the floor and right-hand end of the miter-box.

In addition to the guide-block E, we employ for side mitering a beveled bearing, F, which is pivoted to lugs cast on the upper edge of the rear side piece, *b'*, and its front end is supported upon the front side piece, *b*, as shown in Fig. 2. In this position of the bearing F it is parallel to the plane of the right-hand end of the miter-box, and its bevel is at an angle of forty-five degrees with the plane of the floor of said box. The stuff to be cut is thus supported upon the bearing F, and upon the right-hand edge of the floor of the miter-box, and also against the front edge, *f*, of the right-angle triangle E. When it is desired to cut off squarely the end of a molding, the bearing F is turned back out of the way, and the molding is passed through the opening *g* in the rear side of the miter-box and guided against the front edge of the block E.

It will thus be seen that our improved machine is adapted for square and side mitering,

and also for cutting off squarely the end of a molding.

Having described our invention, we claim—

1. The combination of a right and left hand beveled miter-box, two independent draw-cutting knives fixed to levers which are pivoted to ears, having re-enforcing portions *d'*, and the front and rear sides, substantially as and for the purposes described.

2. The combination, with a miter-box having a passage, *g*, and a pivoted draw-cutting knife, of a removable angular guide-block located in the relation shown to the said passage and diagonal end of the miter-box, substantially in the manner and for the purposes described.

3. The combination, with the miter-box having a pivoted draw-cutting knife, of the removable angular guide-block provided with the pivoted bearing located in the relation shown to the diagonal end of the miter-box, substantially as described.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

JARED STILLY.
J. H. LOWERY.

Witnesses:
JOHN C. BUCK,
S. H. BENTZ.