

C. LOETSCHER.
Mitering-Machines.

No. 145,354.

Patented Dec. 9, 1873.

Fig. 1

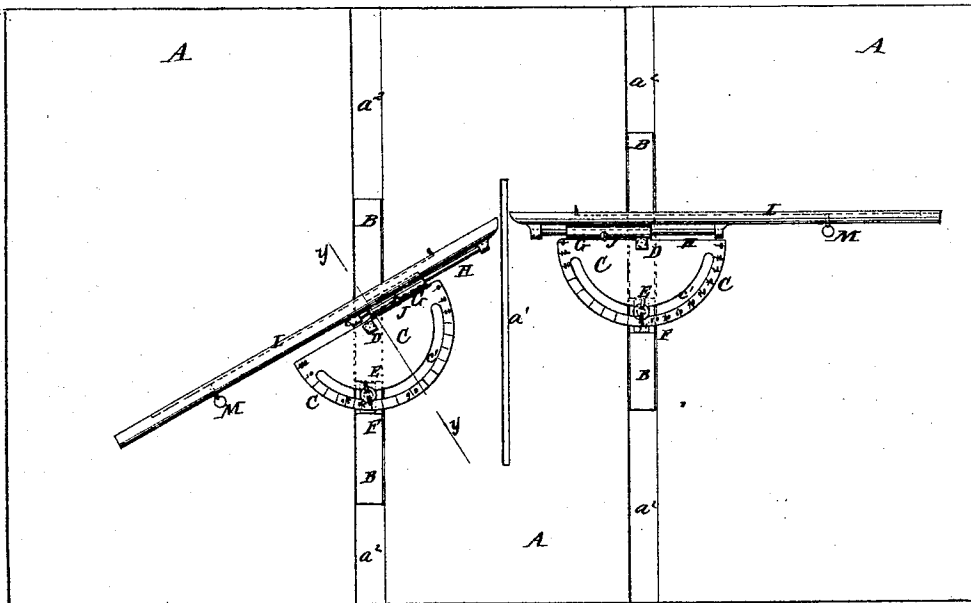


Fig. 2

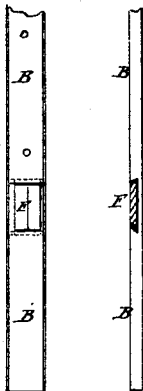


Fig. 3

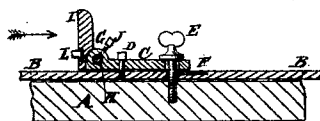
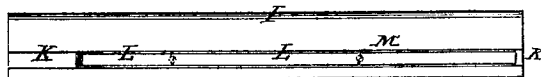


Fig. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

CHRISTIAN LOETSCHER, OF DUBUQUE, IOWA.

IMPROVEMENT IN MITERING-MACHINES.

Specification forming part of Letters Patent No. **145,354**, dated December 9, 1873; application filed October 4, 1873.

To all whom it may concern:

Be it known that I, CHRISTIAN LOETSCHER, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Mitering-Machine, of which the following is a specification:

Figure 1 is a top view of my improved mitering-machine, shown as applied to a circular-saw table. Fig. 2 is a top and edge view of the sliding bar. Fig. 3 is a detail section taken through the line *yy*, Fig. 1. Fig. 4 is a face view of one of the guides.

Similar letters of reference indicate corresponding parts.

My invention is an improvement in devices for forming miter-joints, wherein the bar, against which the stuff is fed to the saw, is pivoted to another bar adapted to slide in a groove in the saw-table.

The improvement relates to features hereinafter described, and explicitly indicated in the claims.

A represents a circular-saw table, in which, upon the opposite sides of and at a distance of six inches, more or less, from the saw-slot *a*¹, are formed two grooves, *a*², to receive the sliding bars B. C are semicircular plates, which are pivoted, at the centers of the circles of which said plates are a part, to the bars B by bolts or pivots D. In the plates C, at a little distance from, and parallel with, the curved edge of the said plates, are formed curved slots *e*, to receive the hand-screws E, by which the plates are secured to the bars B when adjusted. Upon the curved edge of the plates C are formed scales of division-marks, as shown in Fig. 1. In the sliding bars B, just beneath the outer curved edge of the plates C, are formed dovetailed cross-slots, into which are tightly fitted dovetailed blocks F, upon which is formed a line or mark, with which, and with the pivot D, the central mark of the scale must be brought into line when the guide is at right angles with the saw, and which enables said guide to be readily adjusted at any desired angle with said saw. Upon the straight edge of the plates C is formed an eye,

G, to receive the pivot H, the ends of which are attached to the lower part of the rear side of the guides I, and which is made considerable longer than the eye G, so that it may move longitudinally through said eye to adjust the inner end of the guide I closer to or farther from the saw, as may be desired. The hinge G H enables the face of the guides I to be adjusted at any desired angle with the table for mitering moldings that are not stuck upon a solid. The guides I are secured in place, when adjusted, by a set-screw, J, that passes in through the eye G, and presses against the pivot H. In the face of the guides I is formed a longitudinal dovetailed groove, K, in which is slid a dovetailed bar, L, the forward end of which is bent outward into hook form, and is made elastic, so that it may yield when pressed upon. The bar L is held in place, when adjusted, by a set-screw, M, which passes in through a screw-hole in the outer end or middle part of the guide I, and which presses against the inner side of the bar L.

The sliding bar L may be reversed, and is designed for use as a stop when a number of pieces of the same length are to be sawn.

The pair of devices are exactly alike, except being right and left, and may be exchanged, if desired, which makes the guides I face in the opposite direction.

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

1. In combination with the sliding bar B, the guide I, having the sliding and axially-adjustable hinge-connection G H, with the slotted pivoted plate C, all constructed, arranged, and operating as shown and described.

2. The combination of the adjustable dovetailed stop-bar L with the hinged guide I of the mitering-machine, substantially as herein shown and described.

CHRISTIAN LOETSCHER.

Witnesses:

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