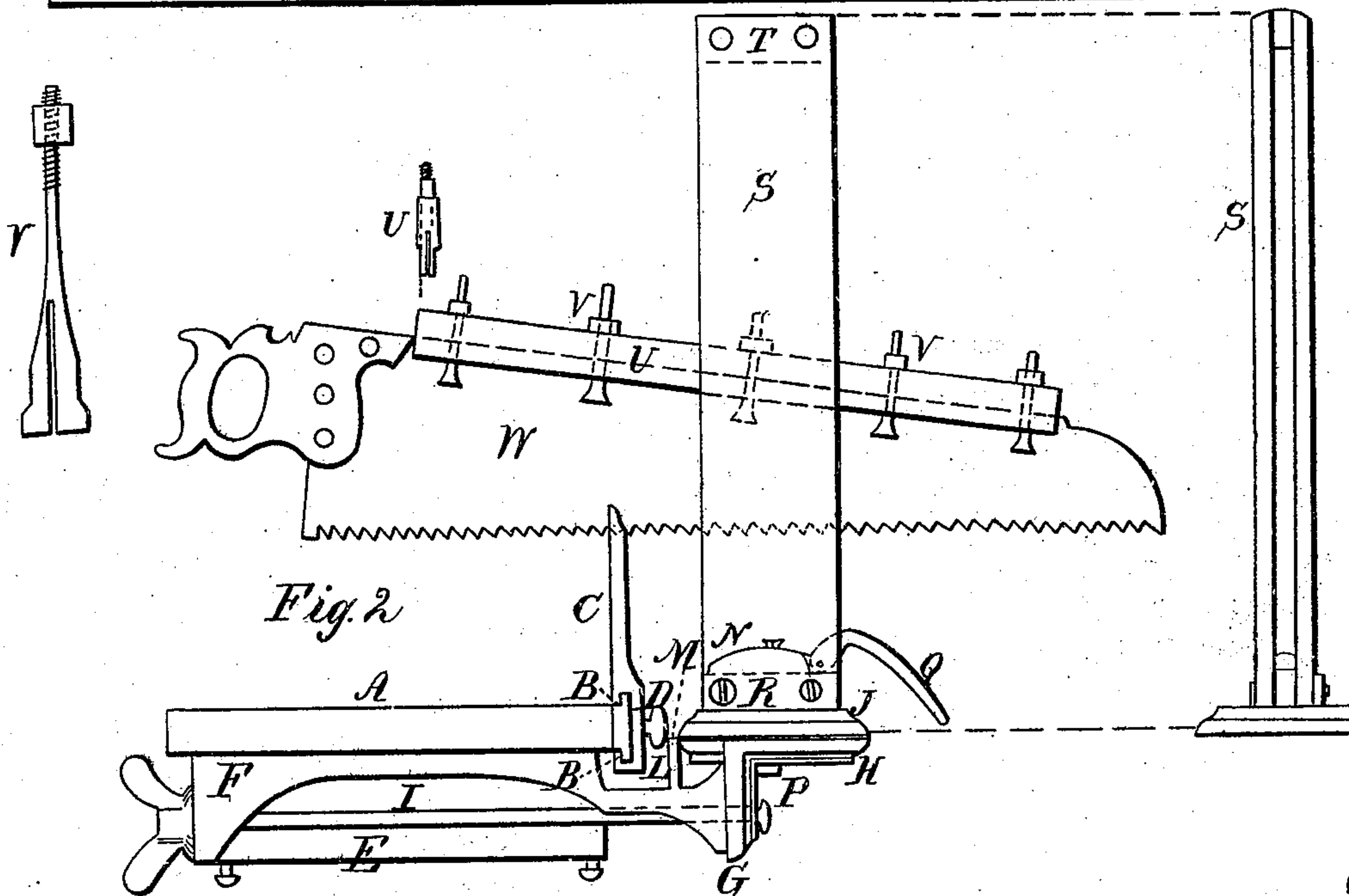
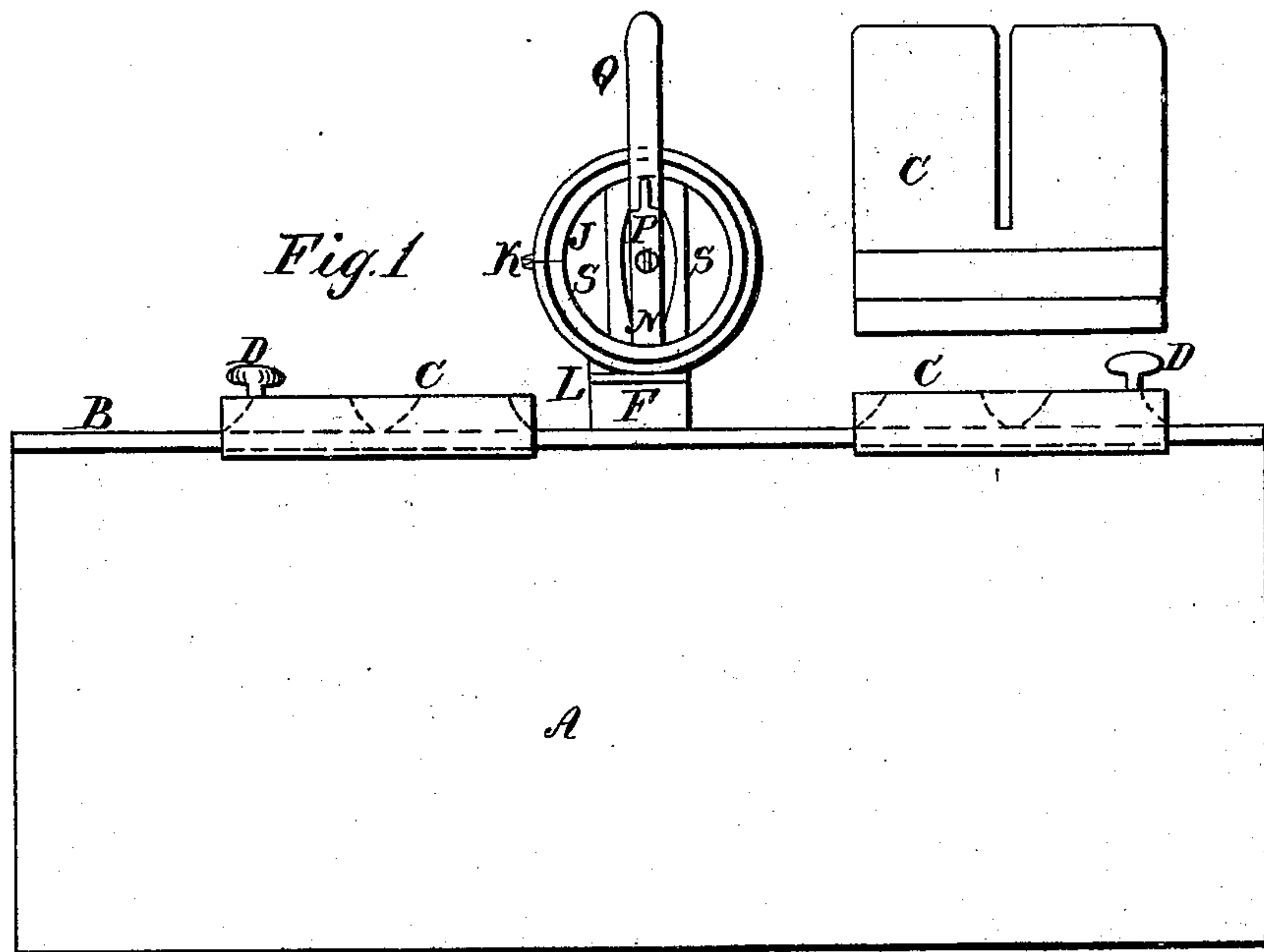


*M. O. Royce.*

*Miter Box.*

*Nº 92,887*

*Patented Jul. 20, 1869.*



*Witnesses*  
*J. Dennis Jr.*  
*W. H. Reeves*

*Inventor*  
*Marion Owen Roy*

# United States Patent Office.

MARVIN OWEN ROYCE, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 92,887, dated July 20, 1869.

## IMPROVEMENT IN MITRE-BOX.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MARVIN OWEN ROYCE, of Boston, Suffolk county, in the State of Massachusetts, have invented certain new and useful Improvements in Mitre-Boxes and their appurtenances; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention consists in a traversing guiding-bar for the saw, fitted to traverse in a guiding-stand, and provided with clamping-screws for straightening, stiffening, holding, and guiding the saw, which bar may be made either with or without a groove, for the back of the saw; also, in a guiding-stand, fitted and arranged to guide the above-mentioned bar, when it is working with the saw.

In the accompanying drawings—

Figure 1 is a plan or top view of a mitre-box, with my improvements.

Figure 2 is an elevation, with some of the parts shown in section.

In these drawings—

A is a bed-piece, provided with ways, B B, at one edge, for the stands C C to traverse on, which stands may be fastened in the position desired, by set-screws D D.

A cleat, like E, may be fastened to the under side of the bed-piece A, near each end, to support it.

The stand F may be made of cast-iron, in the form shown, or in such other form as will answer the purpose, and fastened to the under side of the bed-piece A.

One end of the stand F may have a broad head to it, for the flange G of the horizontal plate H to fit against; and the flange and both ends of the stand are perforated for the bolt I, which fastens them together, and on which the flange turns, when the guiding-stand is inclined either way.

The horizontal plate H may be made in the form shown, and with a graduated circle on its upper side, with an index in the top plate J; or the graduated circle may be on the plate J, and the index K in the plate H, to enable the workman to set his mitre at the desired angle horizontally.

And there is a curved plate, L, on the stand F, which is also graduated for the index M, on the plate H, to enable the workman to set his mitre vertically, as desired, and when set it may be fastened by turning the nut on the bolt I.

The top plate J has a flange, R, across the top, upon which the lever N is placed, and a bolt, P, passes down through the lever, flange, and plates J and H, to make

a pivot for the plate J to turn on, and hold the plates together,

The cam-lever Q is arranged on one end of the lever N, so that when it is raised it will loosen the bolt P, and allow the plate J to turn on the plate H, to adjust the mitre, and when adjusted, the lever Q may be turned down to tighten and fasten the plate.

The flange R, and lever N, and cam-lever Q, are shown in dotted lines in fig. 2.

I make two bars, S S, with a recess on one side, and bolt their lower ends to the flange R, and bolt their upper ends to the block T, shown by dotted lines in fig. 2, thus forming a guiding-stand for the saw which is to cut the mitre.

I make the bars S S so wide, that the ribs on each side of the recesses will be far enough apart to prevent the saw from vibrating sidewise, as it is traversed through the stand, and avoid the need of a second guide in the opposite side of the stuff mitred.

To prepare a saw to work in my improved mitre-box, I take a bar of metal, U, and groove one edge and perforate it for the bolts V V, which are split at one end, to receive the back of the saw.

These bolts are made tapering or conical, so that when they are drawn into the bar, their split ends will be drawn against the saw W, and clamp it firmly, and straighten, stiffen, and hold the saw, while the bar U, fitted to work between the bars S S, which prevent it from swerving, and make it cut the mitre properly.

To use this mitre-box, it may be fastened to the bench, and a board laid or fastened on it, long enough to support the mouldings, when the guiding-stand may be adjusted to the angle desired, and the holding-stands set, when it is ready for use.

With my improvements, the saw is guided by the bar on the back, so that the teeth of the saw never interfere with the guides, so as to wear or cut them away.

I claim—

1. The traversing guiding-bar U, provided with clamping-screws, substantially as described, for straightening, stiffening, holding, and guiding the saw, either with or without the groove in the bar.

2. The guiding-bar U, in combination with the guiding-stand S, when arranged to operate substantially as described.

MARVIN OWEN ROYCE.

Witnesses:

J. DENNIS, Jr.,  
WM. DENNIS.