

R. MUNROE.
Miter-Boxes.

No. 150,970.

Patented May 19, 1874.

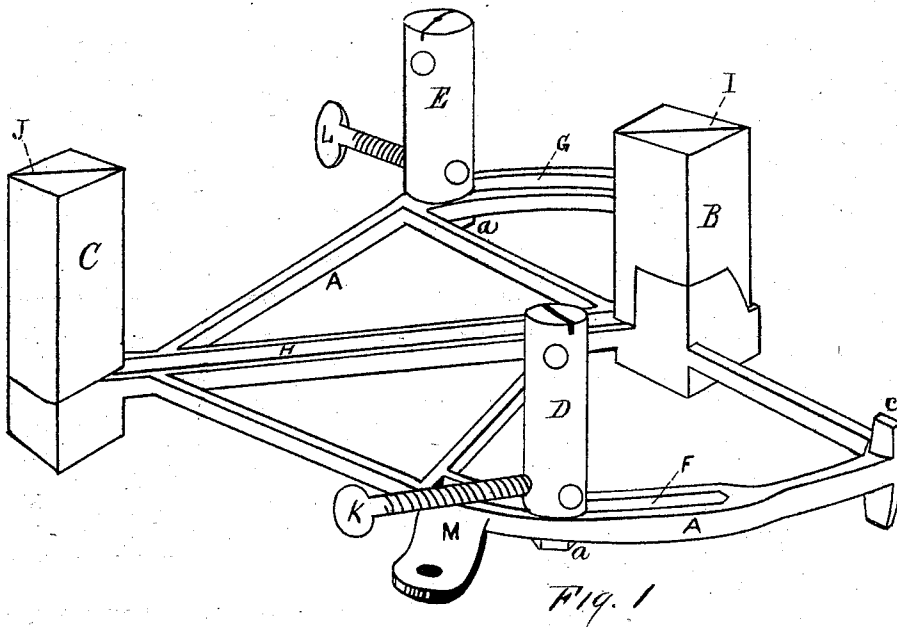


Fig. 1

WITNESSES,
H. E. Metcalf,
N. M. Lowe

INVENTOR
Roderick Munroe
By C. C. Shaw
att.

UNITED STATES PATENT OFFICE.

RODERICK MUNROE, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN MITER-BOXES.

Specification forming part of Letters Patent No. **150,970**, dated May 19, 1874; application filed April 7, 1874.

To all whom it may concern:

Be it known that I, **RODERICK MUNROE**, of Fitchburg, in the county of Worcester, State of Massachusetts, have invented a certain new and useful Improvement in Miter-Boxes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view of my improved miter-box.

My invention relates to that class of miter-boxes which are designed for cutting both right and left hand miters; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a cheaper and more effective device of this character is produced than is now in common use.

The extreme simplicity of my invention obviates the necessity of a lengthy description.

In the drawing, **A A** is the frame; **C**, the head-stock; **B**, the foot-stock; and **E D**, gages, provided, respectively, with the thumb-screws **L K**. The head and foot stocks are secured in sockets with frames, and provided with vertical slots **J I**, in which the saw works in cutting the miter. The gages **E D** are rendered adjustable in the frame by means of the slots **G F** and nuts *a a*.

From the foregoing the nature and operation of my invention will be readily understood by all conversant with such matters.

It is well known to all practical carpenters and builders that in miter-boxes as ordinarily constructed the saw is usually arranged diagonally in the box, and it is necessary to change the position of the saw into a new runlet for every different miter; also that when the saw-runlets or slots in which the saw works become worn, the box is rendered comparatively useless.

These objections are entirely obviated by my invention, by means of which right and left hand miters, and miters of nearly any angle, can be cut without changing the position of the saw in the box, as will be obvious without a detailed explanation.

The stick or board to be cut is placed upon the bed or frame **A A**, one edge being brought into contact with one of the stocks, and also with the gage **D** or **E**, in accordance with the nature of the miter to be cut.

It will be seen that by moving the gages in the slots the angle of the cut may be readily changed. The screws **L K** are also an auxiliary means for the same purpose.

My improvement is also especially adapted to "cornering" or fitting picture-frames, a side and end piece of the frame being placed upon the bed **A A** for that purpose in such a manner as to bring the miter or corner cut centrally over the bar **A**, the stock **B** standing in the inner angle thus formed, the side piece of the frame resting against the stud *c*, and the end piece against a similar stud on the opposite side of the box. (Not shown.) When the side and end pieces are in the position described, if the screws **L K** are turned in until they come in contact with the frame, it will be held firmly against the stock **B** and studs *c*, and the corner may be easily sawed through without disturbing the relative position of the parts.

The gages **E D** should be so arranged when cutting a frame-corner that the gage-screws **L K** will draw or press the side and end pieces of the frame together at the miter. This can be readily accomplished by turning the gages in the slots **G F** and securing them by means of the nuts *a a*.

While held in the box by the screws, as described, the frame can be bradded or nailed at the corner more accurately than after it is removed.

I sometimes provide the edges of the slots **G F** with a measure or scale of inches and fractional parts thereof for determining the angle of the miter. I also for some descriptions of work mount the box on a central pivotal support arranged under the bar **H**, in such a manner that the whole box may be easily rotated on it, instead of being firmly secured to the bench by screws through the flanges **M**.

Having thus described my invention, what I claim is—

The miter-box described, consisting of the bed **A A**, provided with the slots **G F** and studs *c*, the stocks **C B**, provided with the slots **I J**, and the adjustable gages **E D**, provided with the screws **L K**, combined to operate substantially as and for the purpose specified.

RODERICK MUNROE.

Witnesses:

HARRIS C. HORTWELL,
CHARLES F. BAKER.