(No Model.)

I. B. SLOAT.

CLAMPING ATTACHMENT FOR MITER BOXES.

No. 391,093. Patented Oct. 16, 1888.

Fig 1.

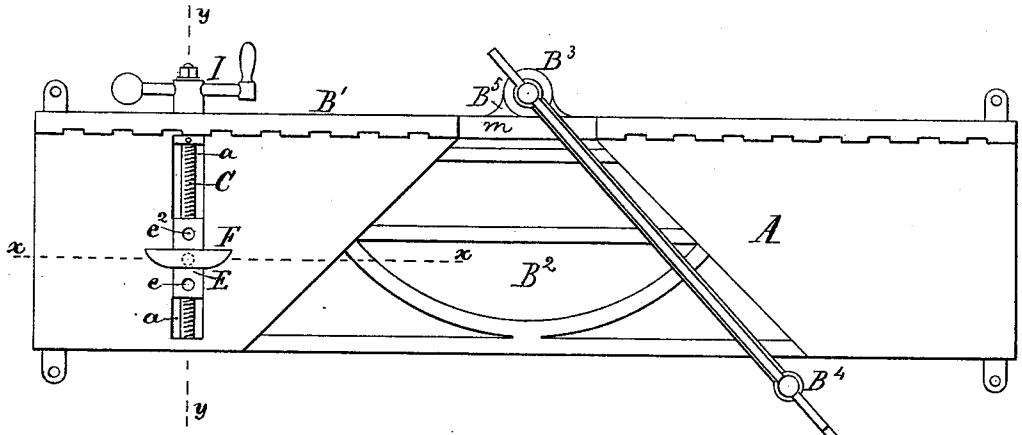


Fig 2.

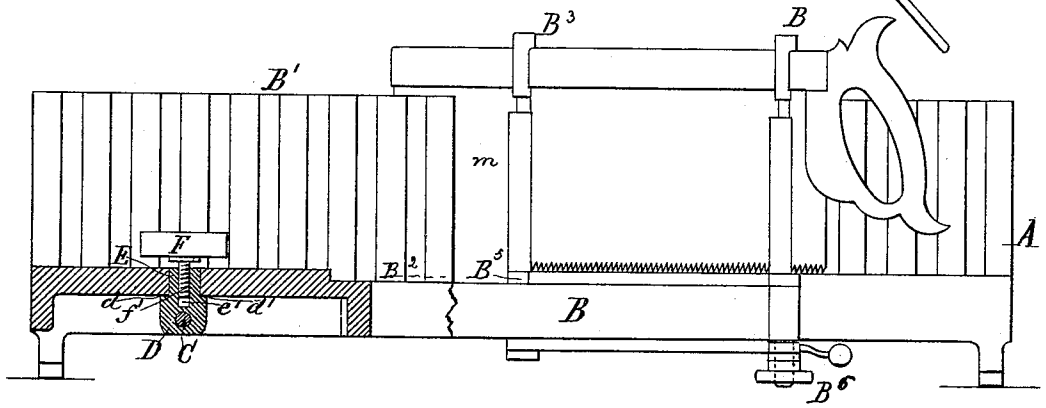


Fig 3.

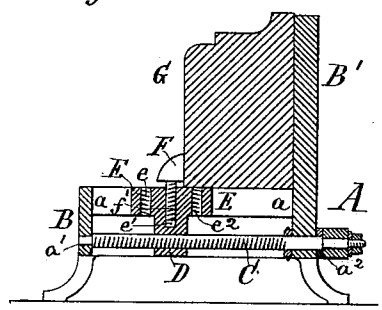
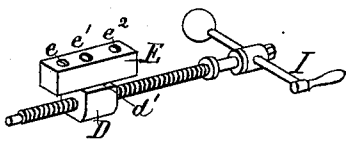


Fig 4.



Witnesses:
Edward J. Fenwick
J. P. Theodore Lang.

Inventor:
Isaac B. Sloat.
by his atty's
Munn, Fenwick & Lawrence.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ISAAC B. SLOAT, OF DELHI, NEW YORK.

CLAMPING ATTACHMENT FOR MITER-BOXES.

SPECIFICATION forming part of Letters Patent No. 391,093, dated October 16, 1888.

Application filed May 9, 1888. Serial No. 273,319. (No model.)

To all whom it may concern:

Be it known that I, ISAAC B. SLOAT, a citizen of the United States, residing at Delhi, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Clamping Attachments for Miter-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in an improved clamping device for miter-boxes, as will be hereinafter described and specifically claimed, whereby moldings or other materials while being sawed are held firmly in place, and consequently the production of perfectly-fitting surfaces for miter-joints is insured.

My invention is of a cheap, simple, and durable construction, and yet is convenient of manipulation and effective for the purpose intended.

In the accompanying drawings, Figure 1 represents a top view of a miter-box provided with my invention. Fig. 2 is a partial side view and partial longitudinal section of the same, the section being in the line *x x* of Fig. 1. Fig. 3 is a vertical transverse section of the same in the line *y y* of Fig. 1; and Fig. 4 is a perspective view of the clamping-screw, nut, the guide-rest, and gripping-jaw.

Letter A in the drawings represents a miter-box of ordinary construction, except that a transverse passage, *a*, is cut through its bottom portion, extending all the way across and through it.

B is the front edge, and B′ the rear vertical side, of the miter-box, said side extending up above the bottom of the box, and being constructed with a ribbed or other suitable holding-surface, as shown, and formed with a vertical opening, *m*, for the passage of the saw, and serving as a clamping stop or shoulder, while answering the usual purpose of a rest and stay for the wood being sawed.

B^2 is a triangular opening in the bottom of the box, wherein the saw and the support of the guides move.

B^3 B^4 are the saw-guides, B^5 the support for the guides, and B^6 the clamp for fastening the guides in their adjusted positions. The guide B^4 turns around its own axis, while the guide B^3 swings with its support in the arc of a circle according to the adjustment made. On this box I have provided the independent clamping device shown in Fig. 4, said device comprising a clamping bench-screw, C, nut D, having a guiding-rest, E, and a gripping-jaw, F. The screw is fitted on the under side of the miter-box in line with the transverse slot *a* in supports a' a^2, so as to revolve but not to travel longitudinally.

The nut D, which traverses the screw C, is wider than the passage *a* and bears by its shoulders *d d′* against the under side of the box when it is in position on the screw, as shown. This nut has a tongue-like formation on its upper side between its shoulders, which forms the guiding slide-rest E and fits the transverse passage snugly, so that its upper surface is flush with the upper surface of the bed of the miter-box.

The gripping-jaw F is attached to the guiding slide-rest E in any suitable manner, either at one of its ends or its middle, and this connection may be permanent, if deemed desirable; but the preferable construction is to provide a series of screw-tapped holes in the rest, as shown, and to form the gripping-jaw with a screw-threaded shank, *f′*, which screws into one or the other of the screw-tapped holes *e* e' e^2, and thereby fastens the gripping-jaw F in the desired position with respect to the clamping-stop B′ of the miter-box or according to the requirements of the width of the material being operated upon.

It will be seen from the foregoing description that by turning the handle I of the clamping-screw C toward the right the nut D, carrying the guiding slide-rest E and gripping-jaw F, will be moved toward the handle I, or in the direction of the clamping stop or shoulder B′ of the miter-box, and if a piece of molding, G, has been placed between the gripping-jaw F and the clamping stop or shoulder it will be held securely in place for sawing. It will also be seen that by making the gripping-jaw F adjustable on the guide-rest D it can be moved quickly, so as to admit material of greater or less thickness with little or no aid

of the clamping-screw C, thus saving time and constant wear on the screw. I regard this as a very important feature of my invention.

The guiding slide-rest may be formed on or made separable from the nut E.

By my within-described invention I am enabled to provide a long steadying and staying guide between the nut and the gripping-jaw, and also to employ a broad long gripping-jaw which will bind firmly upon the molding or other piece of wood being sawed without indenting or marring the same, and likewise to have the jaw of considerable height, and when desirable can substitute one size or form of gripping-jaw for another, as the screw-threaded shank can be provided on several differently-formed jaws, for use as circumstances may require.

What I claim is—

1. The combination, with a miter-box, A, having a vertical clamping side wall and guides for the saw, and a transverse passage, *a*, of the independent clamping device comprising screw C, nut D, guiding slide-rest E, and gripping-jaw F, arranged on one side of the saw-guides and across the miter-box, substantially as described.

2. In a miter-box, A, the guiding slide-rest E of the nut D, provided with a screw-threaded hole or holes, as *e e' e²*, in combination with the gripping-jaw F, having a screw-threaded shank, *f'*, substantially as and for the purpose described.

3. The miter-box nut D, having the guiding slide-rest E, extending up through a transverse passage, *a*, of the miter-box and flush with the bed, and carrying a gripping-jaw, in combination with the miter-box having adjustable guides for the saw and a vertical clamping-wall, said gripping-jaw being arranged between the front edge and the said vertical side stop or shoulder and on one side of the said saw-guides, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ISAAC B. SLOAT.

Witnesses:
G. E. MARVINE,
W. G. EDGERTON.