(No Model.)

C. W. HINZE.

MITER BOX.

No. 345,590. Patented July 13, 1886.

Fig. 1.

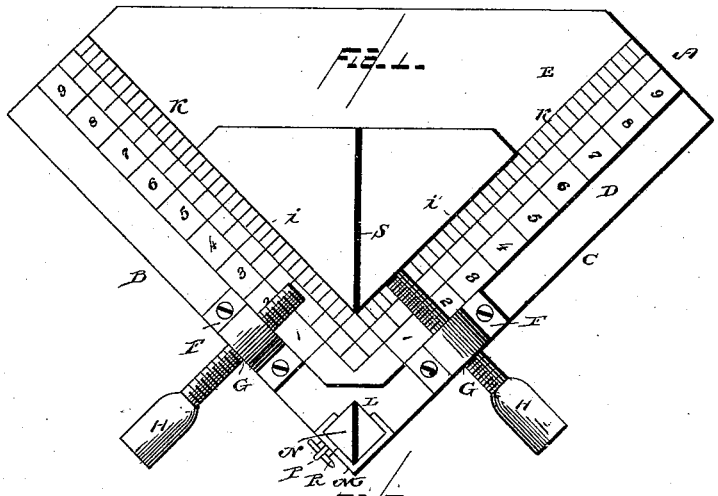


Fig. 2.

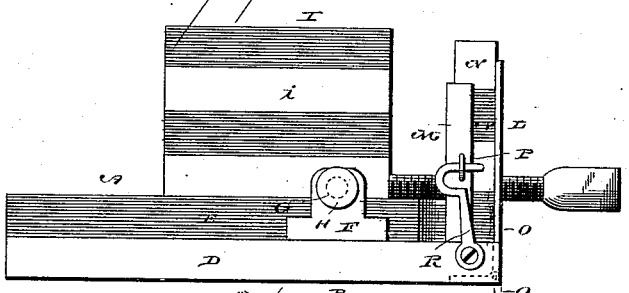
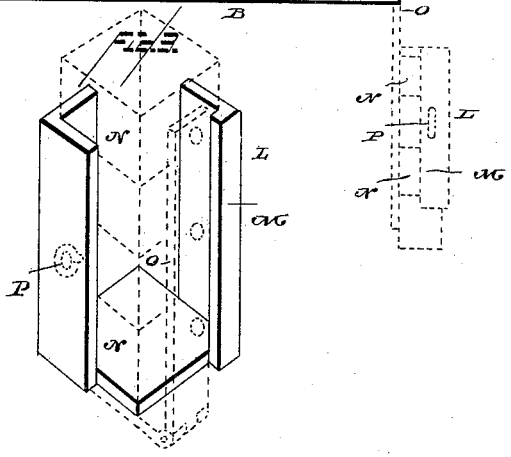


Fig. 3.



Witnesses
J. W. Garner
E. G. Siggers

Inventor
Chas. W. Hinze
By his Attorneys
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

CHARLES WILHELM HINZE, OF CUMBERLAND, MARYLAND.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 345,590, dated July 13, 1886.

Application filed March 3, 1886. Serial No. 193,900. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILHELM HINZE, a subject of the Emperor of Germany, who has made application for citizenship of the United States, residing at Cumberland, in the county of Alleghany and State of Maryland, have invented a new and useful Improvement in Miter-Boxes, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in miter-boxes for making picture-frames and other purposes; and it consists in the peculiar construction and combination of parts, that will be hereinafter more fully set forth, and particularly pointed out in the claims.

In the drawings, Figure 1 is a top plan view of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a detail view.

A represents a base or platform having sides B and C at exactly right angles to each other. This base is preferably of the form here shown, but may be made of any preferred shape, and is composed of boards D and E, which are so arranged, the one on top of the other, as to have the grain of the wood of one board running at right angles to the grain of the other, and thus prevents warping or splitting. The board D extends for a suitable distance beyond the top board, E, forming projecting flanges, on which are placed ears F, which are arranged at exactly right angles to each other, the said ears being provided with transverse threaded openings G, through which pass the clamping-screws H.

I represents a block, which is provided with two sides, *i i'*, which are arranged at exactly right angles to each other and parallel to the sides B and C of the base, respectively. On the top board, E, are inscribed measuring-scales K, which are parallel with its sides. The said scales extend at right angles to each other, as shown in Fig. 1.

On the corner of the board D, at the angle formed by the lines B and C, is located a guide-post, L, which is composed of a vertical metallic cast frame, M, which is open on opposite diagonal sides, and in which is secured a series of blocks, N, one on top of the other, the said blocks being so placed as to have the grain of the one running at right angles to that of the other next adjacent to it. This guide-post is hinged to the corner of the base, as shown at O, and is provided on its side, at right angles to the hinge, with a projecting eye, P, with which engages a hook, R, that is pivoted to the base. By means of this hook and the hinge the guide-post may be secured vertically on the base, as shown in solid lines in Figs. 1 and 2, or swung downwardly and outwardly from the base, so as to be out of the way, as shown in dotted lines in Fig. 2. Diagonally through the center of this guide-post and through the block I is made a guide kerf or slit, S, at exactly forty-five degrees from either the side B or C of the base.

The molding to be mitered, in order to form a picture-frame, is placed on the base and pressed against one side of the block I by one of the clamping-screws H, and the miter-saw is then inserted in the slit or kerf S, and operated to saw off that portion of the molding which projects beyond the said kerf, thus forming a miter cut. In order to secure two pieces of molding together after they have been mitered to form a corner of the frame, they are clamped together and to the block I by the clamp-screws H, and the guide-post L is unhooked from the base and swung on its hinge outwardly therefrom, so as to be out of the way. Nails or screws may be then readily driven into the ends of the molding to secure them together in the usual way, as will be readily understood.

The scales K on the top board, E, enable accurate measurements to be made on the moldings without the use of a rule, and thus effect an economy of time.

A miter-box thus constructed is cheap and simple, is extremely accurate, and is very durable.

Having thus described my invention, I claim—

1. The combination, in a miter-box, of the base A, having the sides B C, the block I, having the right-angled sides, and the guide-post L, the said guide-post and block having the kerf S, the kerf of the guide-post being arranged on a line with the kerf of the block, and the guide-post being hinged to the base A, for the purpose set forth, substantially as described.

2. The miter-box comprising the base A, having right-angled sides, and provided with the clamping-screws H and the measuring-

scales K, and the block I, having right-angled sides arranged parallel to the similar sides of the base, and having the kerf S, substantially as described.

3. The combination, in a miter-box, of the base A, the blocks secured on the base and having the right-angled sides and the central diagonal kerf midway between the right-angled sides, means for clamping the work against the side of the block, and the guide-post L, hinged to the base, and having the vertical kerf in a line with the kerf of the block, substantially as described.

4. The combination, in a miter-box, of the base A, the block I, secured on the base and having the right-angled sides, and the central diagonal kerf midway between the right-angled sides, means for clamping the work against the sides of the block, and the guide post L, hinged to the base, and having the vertical kerf in a line with the kerf of the block, and means for locking the post L in a vertical position to the base, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES WILHELM HINZE.

Witnesses:

CONRAD SMITH,

JOHN SMITH.