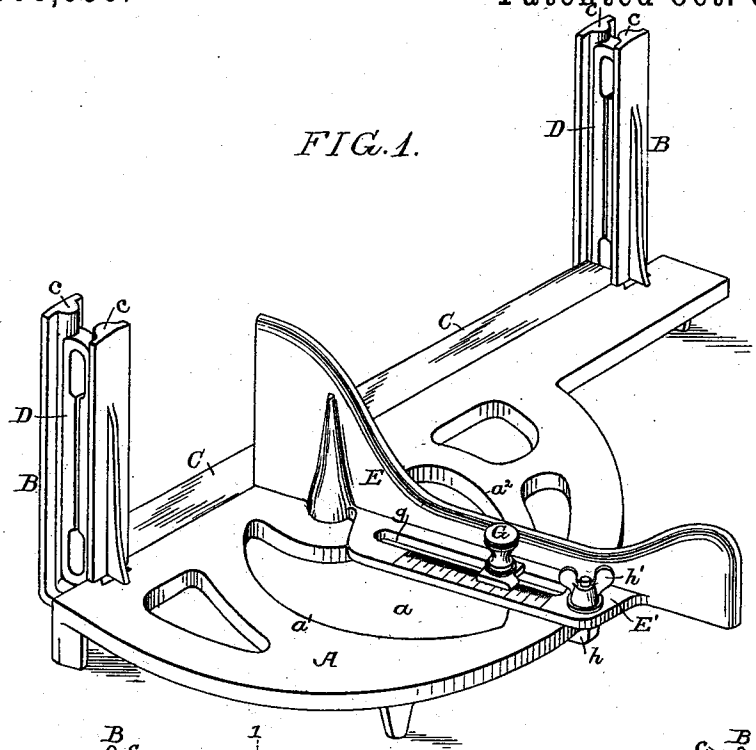
(No Model.)

H. F. BEIMLING.

MITER BOX.

No. 506,090. Patented Oct. 3, 1893.

FIG. 1.



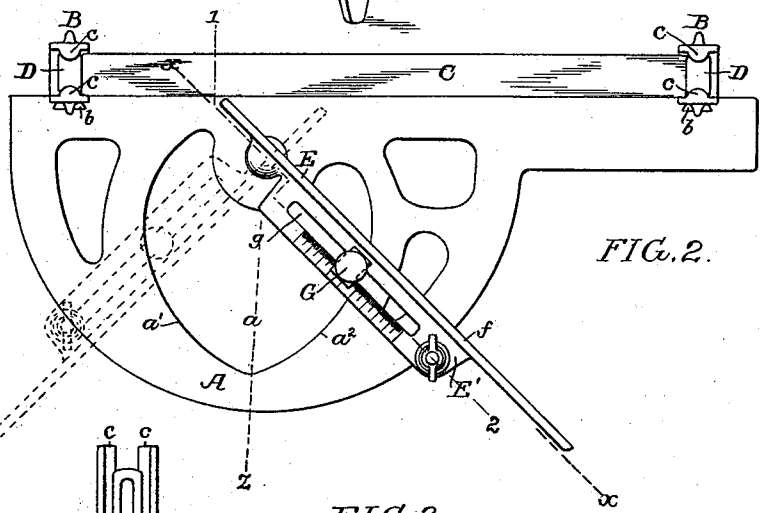
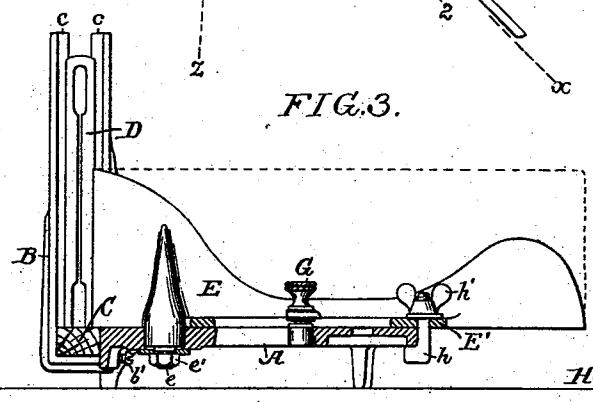


FIG. 2.

FIG. 3.



Witnesses:
H. D. Goodwin
William A. Barr

Inventor:
Henry F. Beimling
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

HENRY F. BEIMLING, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HENRY DISSTON & SONS, INCORPORATED, OF SAME PLACE.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 506,090, dated October 3, 1893.

Application filed April 19, 1893. Serial No. 471,007. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. BEIMLING, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented a certain Improved Miter-Box, of which the following is a specification.

The object of my invention is to so construct a miter-box that the work guide can be readily adjusted to any degree and can be moved from one side to the other without altering the gage, as fully described hereinafter.

In the accompanying drawings:—Figure 1, is a perspective view of my improved miter box. Fig. 2, is a plan view; and Fig. 3, is a section on the line 1—2, Fig. 2.

A is the base of the miter box having secured to its front edge the guide posts B for the saw; each post has, in the present instance, a dovetailed projection *b* resting in a dovetailed slot in the front edge of the base A and secured therein by a set screw *b'*.

Extending nearly the full length of the base, and flush therewith, is a cutting strip C of wood, or other suitable material. This strip rests in pockets in the inner side of each post B; the strips can be taken out readily, and renewed or turned when worn. The posts B are slotted vertically and have internal ribs *c* and adapted to these ribs are the slides D by which the saw is guided. The slides are slotted nearly the entire length for the passage of the saw, the slots being wider at the top and bottom than at the center; but the slots are not cut through the ends of the slides as ordinarily. Consequently, the slides cannot bind upon the saw. These slides can be taken out and reversed if necessary.

Pivoted on the face of the base A is a work guide E, the pivot pin *e* of said guide extending through an orifice in the base and provided with suitable nut *e'*. The face *f* of the work guide is to one side of the center line *x*, drawn through the pivot and the slot *g*, for the adjustable stop is on the opposite side of the line *x* as clearly shown in Fig. 2. The slot *g* is formed in a side projection E' of the work guide E, and on this projection are cut suitable graduations so that the stop can be set to any degree required.

In the base A is an opening *a*, the side walls *a'*, a^2 of which are curved, as shown in Fig. 2; the curve of one side is different from the other, owing to the fact that the stop G on the work guide is to one side of the center pivot line *x*. The curves are such, that the graduations on the guide are made equal distances apart. If the work guide is set as shown by full lines in Fig. 2 at the angle of forty five degrees, the stop being moved to the mark indicating forty five degrees and the work guide being turned on its pivot until the stop strikes the wall a^2, the cut is made then without readjustment of the stop and the guide can swing on its pivot to the opposite side until the stop G strikes the wall *a'*, when a cut can be made on the angle of forty five degrees at right angles to the previous cut. The material can be cut at any angle by moving the stop upon the work guide the curved walls *a'*, a^2 will limit the movement of the guide so that the angles will be the same number of degrees away from the center line *z*, one on one side of the line and the other on the opposite side. The guide can be locked after adjustment by the clamp bolt *h* and thumb screw *h'*; other means of fastening may be employed without departing from my invention. I have shown the edge of the guide curved, but it will be understood that it may be straight, as shown by dotted lines in Fig. 3, without departing from my invention.

I claim as my invention—

1. The combination in a miter box, of the base, the saw guides, the pivoted work guide, an adjustable stop on said work guide and curved walls for limiting the movement of the pivoted work guide, so that the said guide can be arranged at the same angle on either side of the center line *z*, substantially as described.

2. The combination of the base A, having an opening, the side walls of said opening being curved, a pivoted work guide, an adjustable stop on said work guide adapted to rest against either of the side walls of the opening, the curves of the side walls being such that the work guide will be adjusted on the same angle on either side of the center line *z*, substantially as described.

3. The combination in a miter box, of the pivoted work guide for the material to be cut, a stop on said work guide adapted to be ad-

justed toward and from the pivot, a base to which the guide is pivoted, curved walls on said base against either of which the stop rests when adjusted, said stop being on one side of the central line x taken through the pivot, and the face of the work guide being on the opposite side of said line, substantially as specified.

4. The combination of the base having an opening, the side walls of said opening being curved, the pivoted work guide for the work, an adjustable stop on said guide extending into the opening and adapted to be adjusted toward or from the pivot and a clamp for clamping the guide in the adjusted position, substantially as described.

5. The combination of the base having at each end a post, saw guides adapted to these posts, a guiding strip mounted at one edge of the base and supported by the posts, a pivoted work guide situated between the two posts, a slot in said guide, graduations on one side of the slot, a stop mounted in said slot and adapted to be adjusted toward and from the pivot, a base having an opening into which the stop extends, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY F. BEIMLING.

Witnesses:
WILLIAM A. BARR,
JOSEPH H. KLEIN.