H. L. ROEWE.

MITERING MACHINE.

APPLICATION FILED APR. 19, 1911.

999,058.

Patented July 25, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

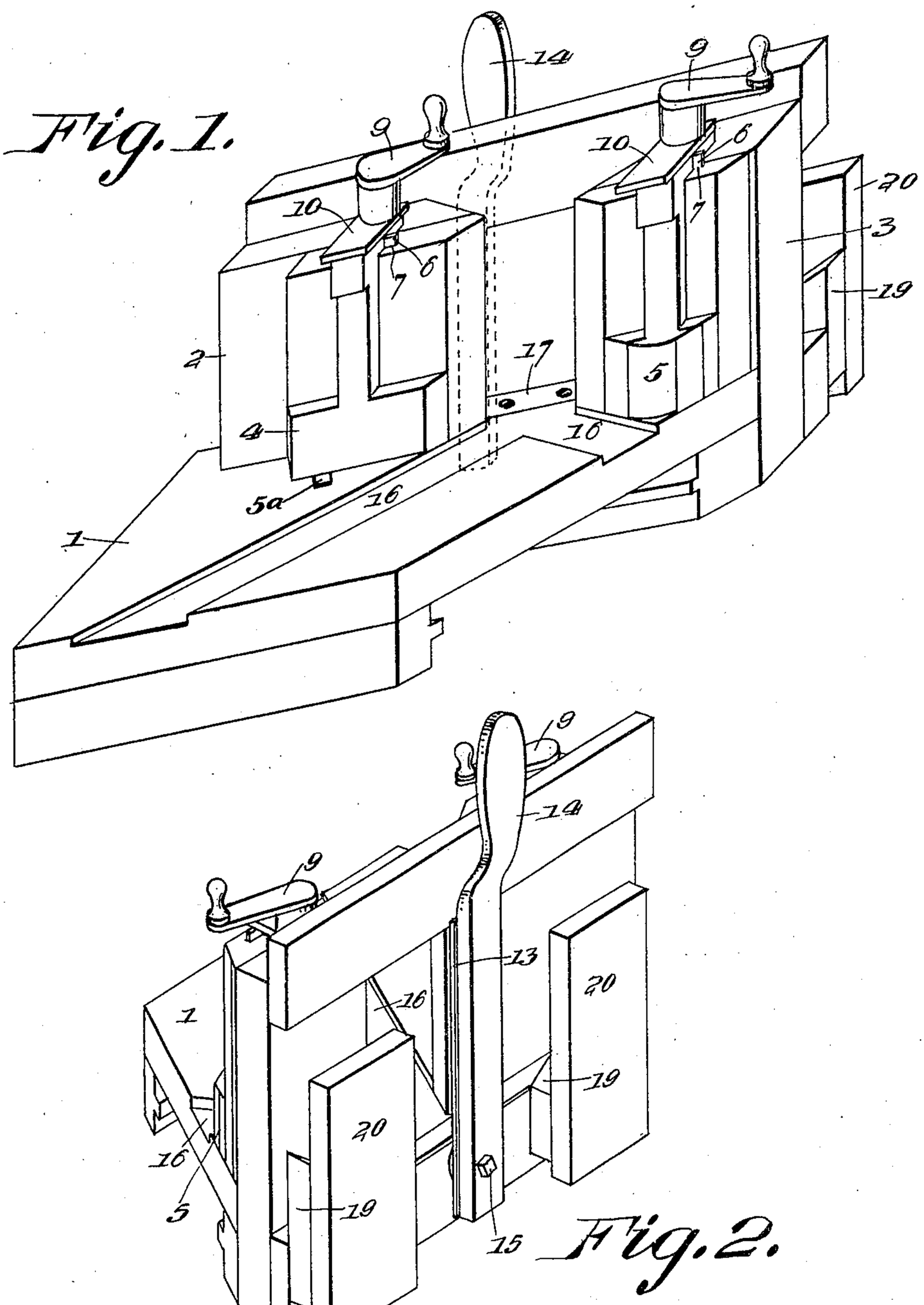

Fig. 2.

Witnesses:

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COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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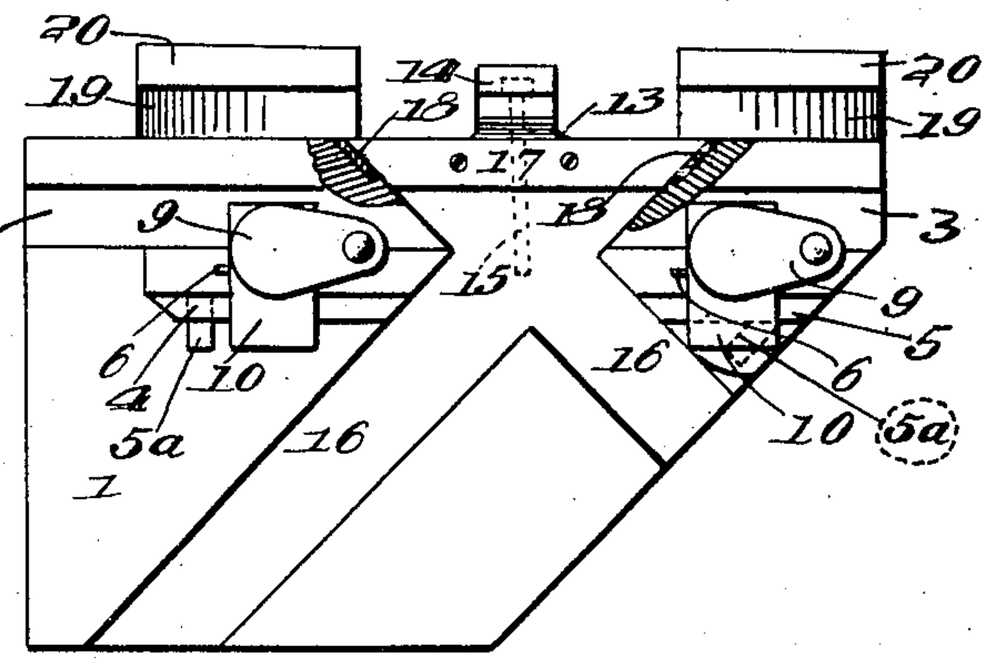

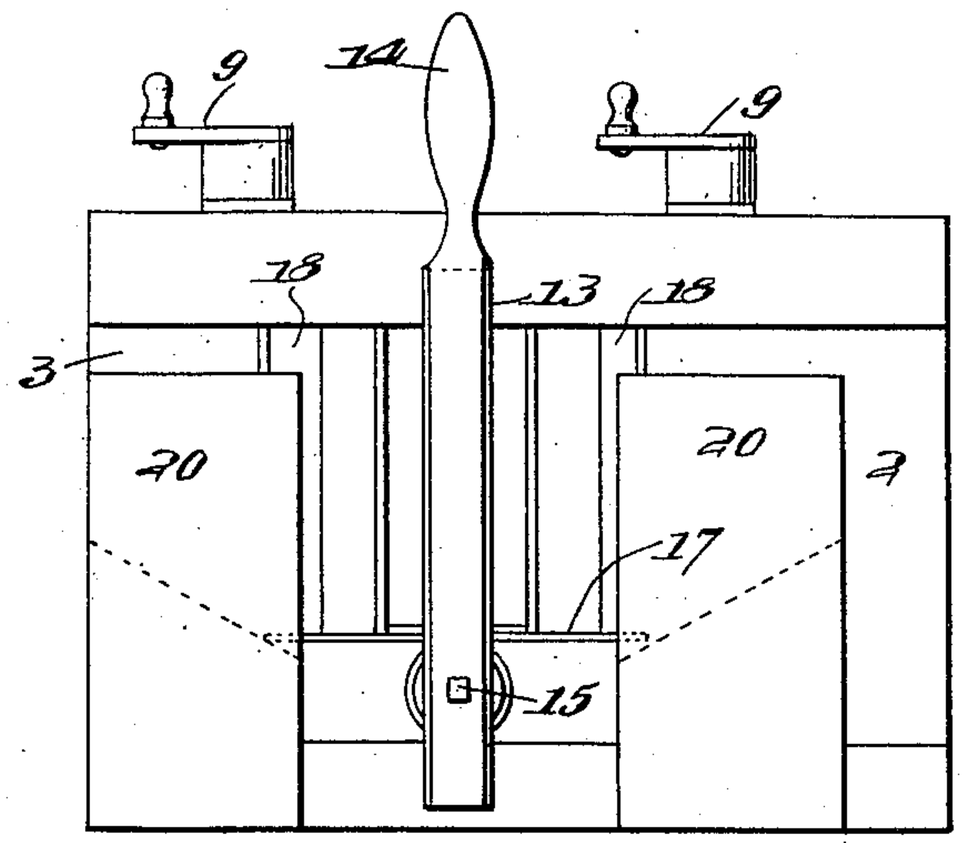

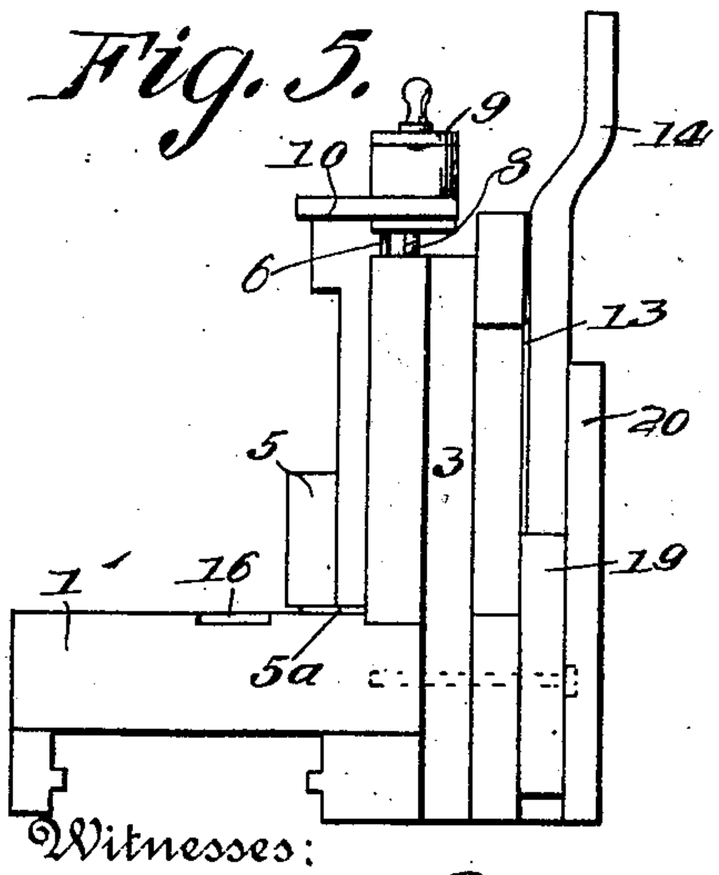

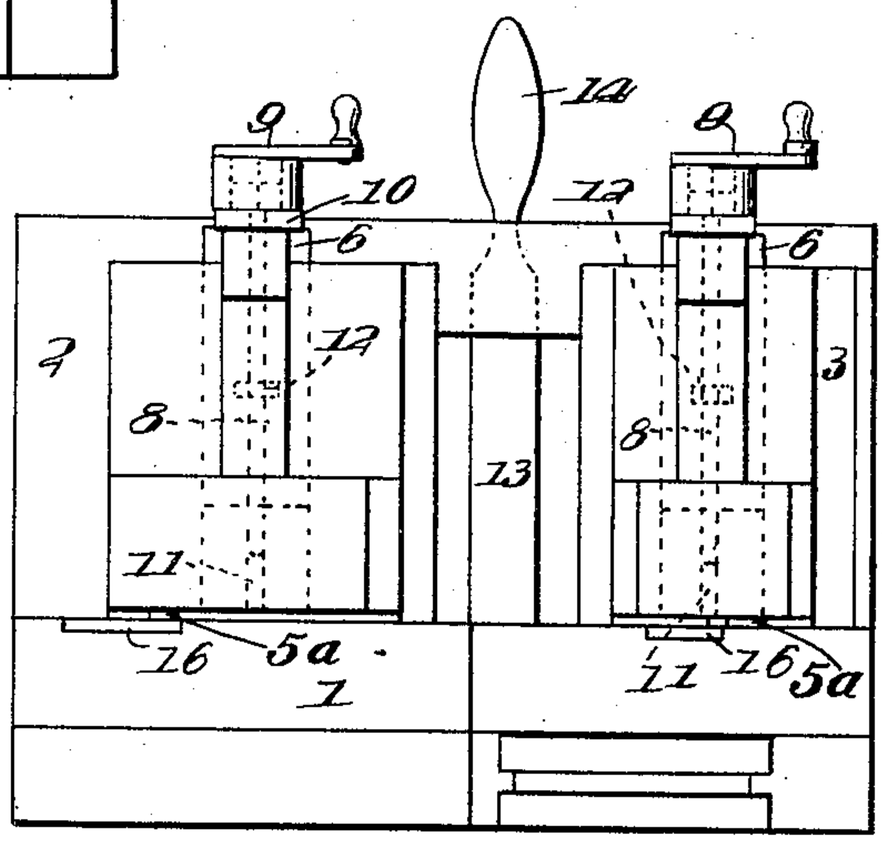

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UNITED STATES PATENT OFFICE.

HENRY L. ROEWE, OF ST. LOUIS, MISSOURI.

MITERING-MACHINE.

999,058. Specification of Letters Patent. Patented July 25, 1911.

Original application filed March 26, 1910, Serial No. 551,622. Divided and this application filed April 19, 1911. Serial No. 622,003.

To all whom it may concern:

Be it known that I, HENRY L. ROEWE, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Mitering-Machines, of which the following is a specification.

The present invention has reference to miter-boxes and its essential object is the production of a device of that general class equipped with improved means for cutting and trimming miters.

It resides primarily in the particular construction and arrangement of parts hereinafter fully described and claimed in this application, the same constituting a division and continuation of my prior application, Serial No. 551,622, filed March 26, 1910.

A structural embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figures 1 and 2 are front and rear perspective views, respectively of the improved miter-box, Figs. 3 and 4 are a top plan view and rear elevation, respectively of the same, Figs. 5 and 6 are side and front elevations, respectively thereof.

In said drawings, 1 designates the bed or base of the device and 2 and 3 a pair of uprights mounted thereon, these uprights being grooved to receive the vertically-adjustable clamp-blocks 4 and 5. As in the earlier construction, one end of the base, in the present instance that end which is adjacent the upright 3, is preferably cut at an angle, to allow a plane, (not shown) to be used for smoothing the miter that is cut in the manner hereinafter described, the material being held by means of the clamp-block 5 borne by said upright 3 so that its mitered end projects beyond the said cut end of the base.

A plurality of pads 5^a, preferably formed of rubber, is set in depressions in the surface of base 1 in order to aid in holding the material in place on said base.

The clamping blocks are raised and lowered by means of suitable adjusting devices and are guided during their movements by means of metal strips 6 with which they are provided, these strips being slidably fitted in slots in the respective uprights. The said adjusting devices are preferably identical in construction with those shown in my above-mentioned application, to which reference may be had for an extended description, it being only necessary to state, therefore, that they include for each block a screw threaded vertical rod 8 having mounted upon its upper end a crank-handle 9, whose hub portion is supported upon the top-piece 10 of the block. Each rod 8 extends into an opening 11 in its respective upright and passes through a nut 12 which is rigidly secured within said opening, with the result that when handle 9 is turned its rod will be caused to move inwardly or outwardly through said nut, thereby moving the block toward or from base 1.

The device for cutting the miters preferably comprises a knife 13 bearing a handle 14 and pivoted to base 1 between the uprights 2 and 3 by means of a bolt 15 or the like. The upper surface of said base is formed with a pair of grooves 16 in order to provide for the material being held in position to allow said knife to cut a miter, said grooves being arranged to intersect each other and each being disposed at an angle of 45° to the plane of the knife. To afford shearing surfaces for the knife, metal plates 17 and 18 are set into the upper face of base 1 and, also, the rear vertical faces of the uprights 2 and 3 adjacent the plane of said knife, the said uprights being arranged in spaced parallel relation to each other and having their confronting faces beveled in conformity with the intersecting grooves 16 above referred to, and lying in the planes of the adjacent side walls of the grooves, as shown in Fig. 3; it is at the rear edges of the rear portions of these beveled faces that the plates 18 are disposed, as will be understood.

Means are provided for limiting the swinging movement of the knife in both directions, and, also, for holding said knife firmly against one of the aforesaid plates 18; the first of these means is constituted by a pair of beveled blocks 19 fastened to the rear face of base 1 so that said knife will strike thereagainst after having been moved or swung a predetermined distance; the second-named means comprises a pair of vertical blocks 20 secured at their ends to the rear faces of the respective blocks 19.

The operation of the device is as follows: The material is placed in position in one of the grooves 16 so that the end thereof to be cut extends beyond the intersection of the plate 17 and one of the plates 18, after which

the knife is moved toward the material with the result that a miter is cut thereby. The device is preferably used to cut miters on a small material, and, also, to trim the ends of miters on larger material cut by the saw shown in the construction in the prior application.

What is claimed is:

1. In a miter-box, the combination of a base having its upper surface formed with a pair of intersecting work-receiving grooves; a pair of spaced uprights borne by the base and having their confronting vertical faces beveled in conformity with said grooves and lying in the planes of the adjacent side walls of the same; metal plates secured to the upper face of said base between the rear portions of the beveled faces of said uprights, and to the said rear portions of said beveled faces; and a knife pivoted to said base and movable in shearing engagement with said plates.

2. In a miter-box, the combination of a base formed with a pair of intersecting work-receiving grooves; a knife pivoted to the rear face of said base and movable across said grooves; and a pair of oppositely beveled blocks secured to the aforesaid rear face of the base in the path of movement of the knife, for limiting the movement of the latter in either direction.

3. In a miter-box, the combination of a base formed with a work-receiving groove; an upright borne by the base; plates borne by said base and said upright directly adjacent said groove; a knife pivoted to the rear face of said base and movable in shearing engagement with said plates; a stop secured to the aforesaid rear face of said support in the path of movement of said knife for limiting the movement of the latter in one direction; and a member secured to said stop for holding said knife in such engagement.

4. In a miter-box, the combination of a base formed with a work-receiving groove; an upright borne by the base; plates borne by said base and said upright directly adjacent said groove; a knife pivoted to the rear face of said base and movable in shearing engagement with said plates; a beveled block secured to the aforesaid rear face of said base in the path of movement of said knife, for limiting the movement of the latter in one direction; and a vertical block secured to said beveled block for holding said knife in such engagement.

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

HENRY L. ROEWE.

Witnesses:
GLADYS WALTON,
GEORGE G. ANDERSON.