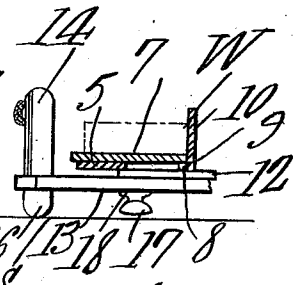
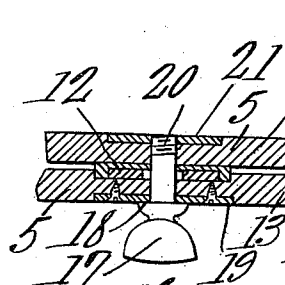
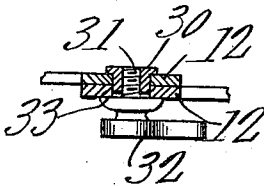
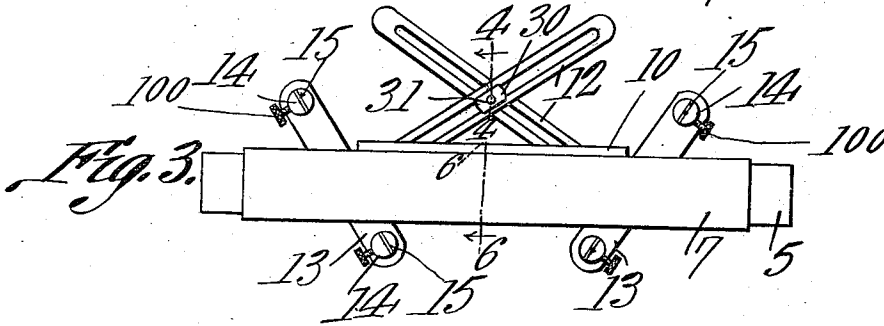
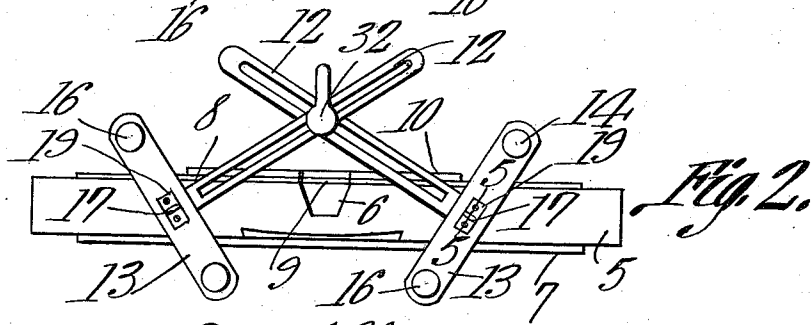
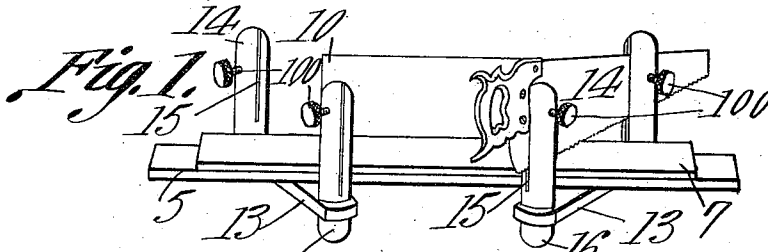


J. L. STEVENS.
MITER BOX.

APPLICATION FILED MAY 16, 1911.

1,014,674.

Patented Jan. 16, 1912.



Witnesses

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JOHN L. STEVENS, OF SOUTH BEND, WASHINGTON.

MITER-BOX.

1,014,674.

Specification of Letters Patent.

Patented Jan. 16, 1912.

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To all whom it may concern:

Be it known that I, JOHN L. STEVENS, a citizen of the United States, residing at South Bend, in the county of Pacific and State of Washington, have invented a new and useful Miter-Box, of which the following is a specification.

This invention relates to wood sawing, and more especially to miter boxes; and the object of the same is to produce an improved miter box having two swinging saw guides of T-shape, each pivoted at its angle beneath the bed or base of the box and having its stem adjustably connected with the stem of the other guide whereby a great variety of angles can be set and sawed. This object is accomplished by the construction hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a perspective view of this device. Fig. 2 is a bottom plan view. Fig. 3 is a top plan view. Fig. 4 is a section on the line 4—4 of Fig. 3, and Figs. 5 and 6 are sections on the lines 5—5 and 6—6 of Fig. 2.

In the drawings the numeral 5 designates the base or bed plate which is by preference a rather thick board having a notch 6 in its bottom at the center of the rear edge thereof as seen in Fig. 6; the numeral 7 designates the bottom of the miter box which is by preference a board a little shorter and a little wider than the bed 5, having a flange 8 depending from its rear edge and notched at its center as at 9 as also seen in Fig. 6; and 10 designates the rear side of the miter box which rises from the rear edge of said bottom as shown, said rear member being by preference a board somewhat shorter than the bottom board as best seen in Fig. 3. It is to be understood that the blocks of wood or "stock" to be sawed are laid upon the bottom 7 and against the rear side in the position indicated at W in Fig. 6, and as usual there are guides provided for the saw blade so that the latter may be disposed across the blocks at a suitable angle to the length thereof.

In this device there are two guides whereof each is substantially T-shaped in plan view and comprises a longitudinally slotted stem 12 (which by preference is of metal) whereof one extremity is united fixedly and

at right angles to the center of a transverse head 13 (which may be of metal or wood), the connection between the two being effected in any desired way. Through each end of the head 13 extends an upright pin 14 having a kerf 15 in its upper portion for the saw blade, and having its lower end projecting below the head into a foot 16 which is preferably rounded at its lower extremity so as to rest upon the work bench; and it is these four feet which support the entire device. Each T-shaped member is connected at its angle with the bottom of the bed plate 5 by means of a set screw 17 whose shank preferably has a shoulder 18 bearing on a wear plate 19 beneath the head 13, while the threaded portion of its shank, 20, passes loosely through the head 13 and the stem 12 and screws into a nut 21 carried by the bed plate 5—all as best seen in Fig. 5. It will be obvious that by tightening up this set screw the head of the T-member may be held at various angles with relation to the length of the bed plate. The head 17 of the thumb screw is of a size to stand above the support S when the feet 16 of the several pins rest upon said support, as seen in Fig. 6.

Referring now to Fig. 4, where the stems 12 cross each other they are by preference adjustably connected by means of a sliding nut, and the same includes a shouldered head 30 adapted to fit slidably in the slots of the two stems 12, a threaded shank 31 secured to said head and projecting downward therefrom, and a lever nut 32 screwing onto the lower end of the shank 31 and having a shoulder 33 coacting with the shoulder of the head 30 to clamp the two stems 12 between them when the button is set up tight. The said button is also of a size to stand above the support S when the feet 16 rest thereon as seen in Fig. 6.

The use of this device as a miter box is illustrated in Fig. 1 and well known in this art. When it is desired to adjust the angle of the guides, which the aligned kerfs in any two pins make, the nut 32 is loosened and the set screw 17 is loosened and the T-shaped member set as desired. If the device stands as seen in Fig. 3, it is necessary to invert it to the position shown in Fig. 2 in order to get at the nut 32 and the heads of the set screws 17, and after the parts are ad-

justed they are again tightened up and the device restored to the position shown in Figs. 1 and 3. So long as both heads 13 are set at relatively the same, although oppositely disposed, angles across the bed plate 5, the nut 32 will stand opposite the notch 6 as seen in Fig. 2, and the angle made on a piece of wood by use of the saw where shown in Fig. 1 would be the same as the angle of a cut across the other or left end of said piece of wood if it were inverted in place in that view and the saw were used in the left hand pair of pins.

The notch 6 is for the purpose of receiving the upper or shouldered end of the head 30 of the sliding nut when this miter box is disposed in such manner that it will cut nothing but right angles. That is to say, the heads 13 in that case would stand directly across the bed plate, the two stems 12 would stand in true alinement along the longitudinal center of said plate, lapping one over the other, and the upper end of the head 30 at the inner end of the notch 6.

Thus it will be seen that I have produced a miter box capable of having its two guides set in a wide number of angles which are complementary of each other so long as the sliding nut stands opposite the notch, or which differ from each other if the sliding nut is adjusted nearer to either end of the bed plate. After setting the guides, and tightening the nut 32, in order to hold the guides yet more reliably and to prevent any accidental displacement of them from their proper positions, I prefer to tighten up the thumb screws 17, and when the miter box is restored to its proper position as seen in Fig. 1 and rests on the lower ends of the feet 16, the support will not come into contact with either thumb screw or with the nut 32.

The sizes and proportions and materials of parts are not essential to the successful operation of this device.

If desired, thumb screws 100 may be threaded into the pins 14 to bear against the saw, for the purpose of affording a bearing for the saw and to accommodate saws of different thicknesses.

What is claimed is:

1. The herein described miter box comprising a bed plate having a back against which the stock rests, a pair of T-shaped guides having slotted stems overlapping each other, means for adjustably connecting said stems, means for pivotally connecting the guides at their angles to said bed plate, and pins rising from opposite ends of the head of each guide and having saw-guiding kerfs.

2. The herein described miter box comprising a bed plate having a back against which the stock rests and a notch in its lower face at the center of its length opening out one edge, a pair of T-shaped guides

whose stems overlap each other, means for adjustably connecting said stems, the said means standing within said notch when the stems are alined with each other, pivots connecting the guides at their angles to the bottom of the bed plate, and upright pins through the ends of the head of each guide, the pins having saw-guiding kerfs in their upper portions and their lower portions forming feet which support the bed plate and hold said means and pivots above a support.

3. The herein described miter box comprising a bed plate having a back against which the stock rests and a notch in its lower face at the center of its length opening out one edge, a pair of T-shaped members having slotted stems overlapping each other, a sliding nut adjustably engaging the slots with its upper end standing within said notch when the stems are alined with each other, pivots connecting the members at their angles to the bottom of the bed plate, saw-guides rising from the heads of said members, and feet depending from said heads and supporting the bed plate, sliding nuts, and pivots above a support.

4. The herein described miter box comprising a bed plate having a back against which the stock rests, a pair of T-shaped members whose stems overlap each other and whose heads underlie said plate, means for adjustably connecting the stems, set screws whose threaded portions pass loosely upward through said heads and make threaded engagement with said plate, the thumb portions of the screws standing below said plate, saw-guides rising from the heads of said members, and feet depending from the ends of said heads to a greater distance than the length of said thumb-portion.

5. The herein described miter box comprising a bed plate having a notch in its lower face at the center of its length opening out one edge, a bottom lying over said plate and having a depending flange passing over said edge of the plate and notched to register with the notch therein, a back rising from said bottom, a pair of angular members whose stems overlap each other, means for adjustably connecting said stems, the adjusting means entering said notches when the stems are moved into alinement with each other, pivots connecting the members at their angles to the bottom of the bed plate, saw-guides rising from the heads of the members, and feet depending from said heads for a sufficient distance to hold all parts above a flat support.

6. The herein described miter box comprising a bed plate having a back against which the stock rests, a pair of T-shaped members whose stems overlap each other, means for adjustably connecting said stems, a set screw passing through each member at

its angle and engaging said plate, saw-guides rising from the heads of said members, and feet depending from said heads and forming the sole support for the entire miter box.

7. The herein described miter box comprising a bed plate having a back against which the stock rests, a pair of T-shaped members whose stems overlap each other, means for adjustably connecting said stems, a set screw passing upward through the head of each member and into said plate and holding these parts adjustably connected with each other, saw-guides rising from the heads of said members, and feet depending from the ends of said heads past the edges

of said bed plate and forming the sole support for the entire miter box.

8. A miter box including a bed; intersecting members pivoted to the bed and having saw guides upstanding upon both sides of the bed; and means longitudinally adjustable upon said members, for connecting them at their point of intersection.

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

JOHN L. STEVENS.

Witnesses:

VERNON M. EAGER,
OLIVE OVERHULSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."