No. 754,625. PATENTED MAR. 15, 1904.

J. A. TRAUT.

MITER BOX.

APPLICATION FILED APR. 24, 1903.

NO MODEL.

Fig. 1.

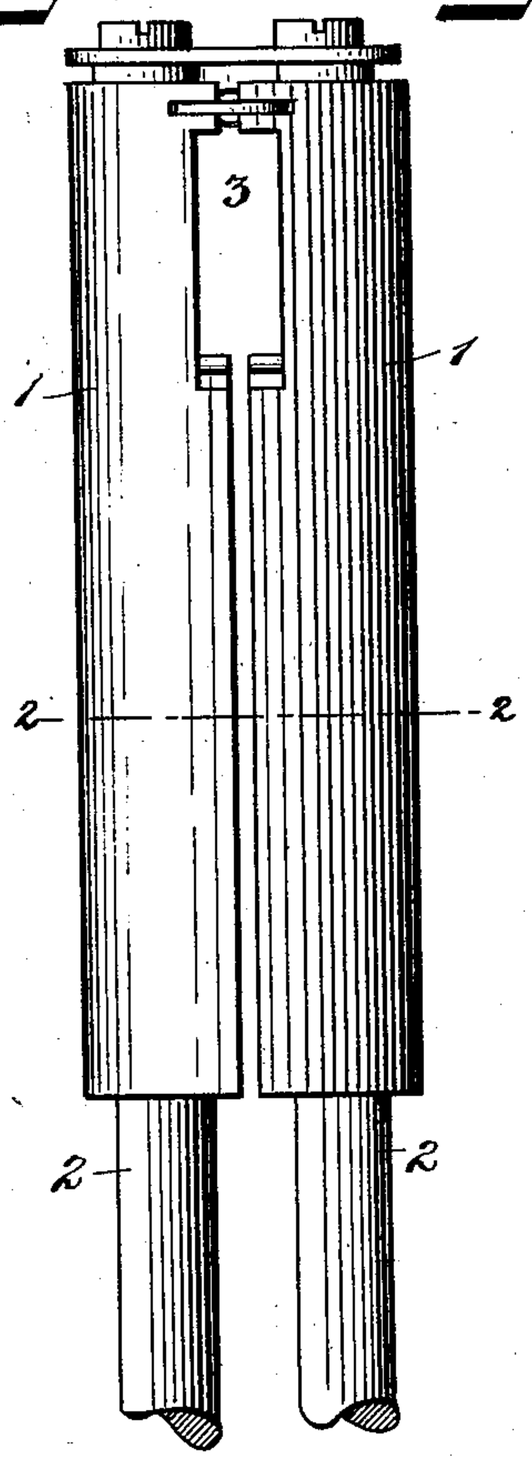


Fig. 3.

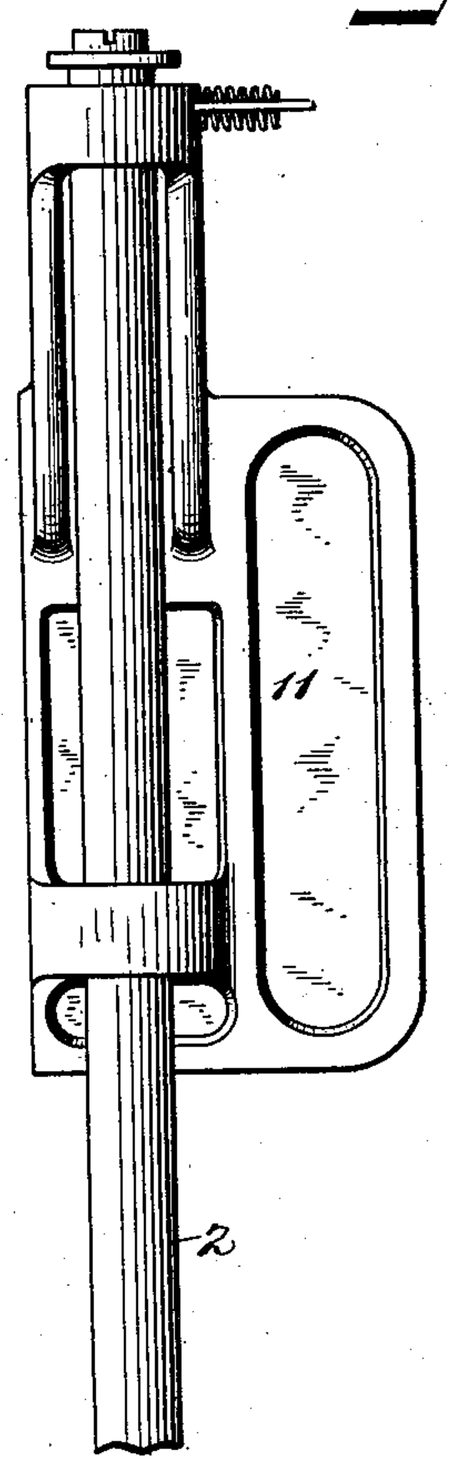


Fig. 4.

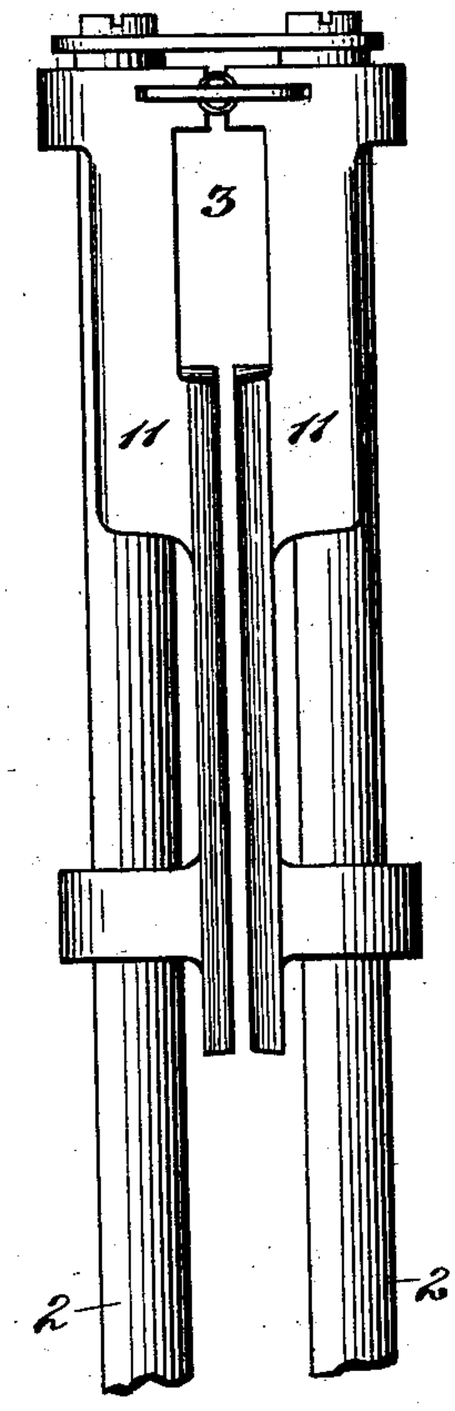
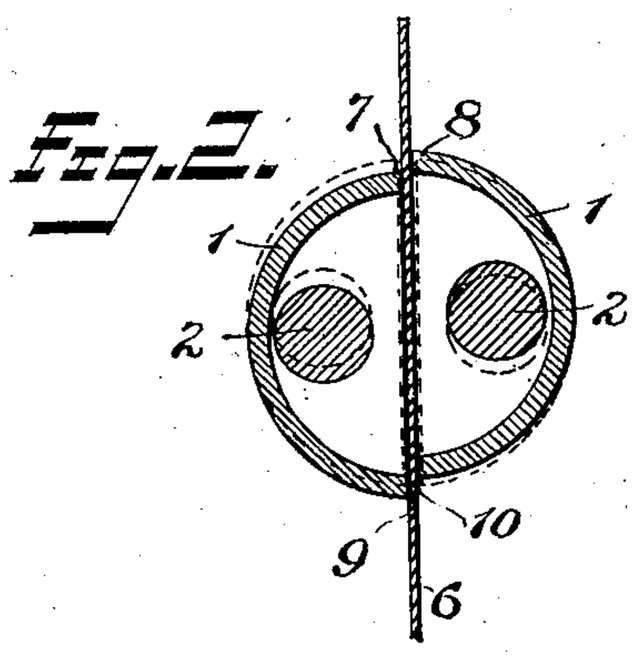
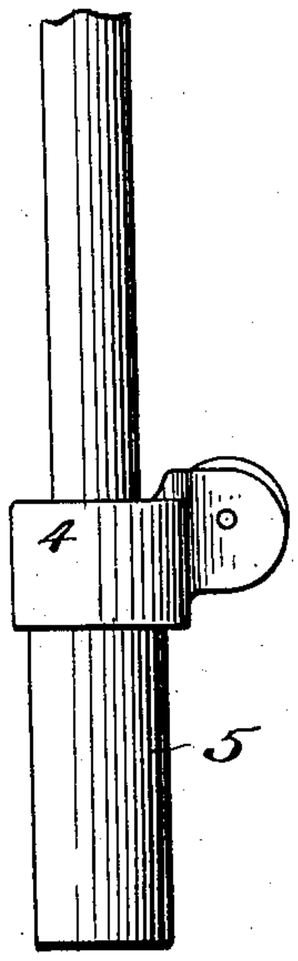
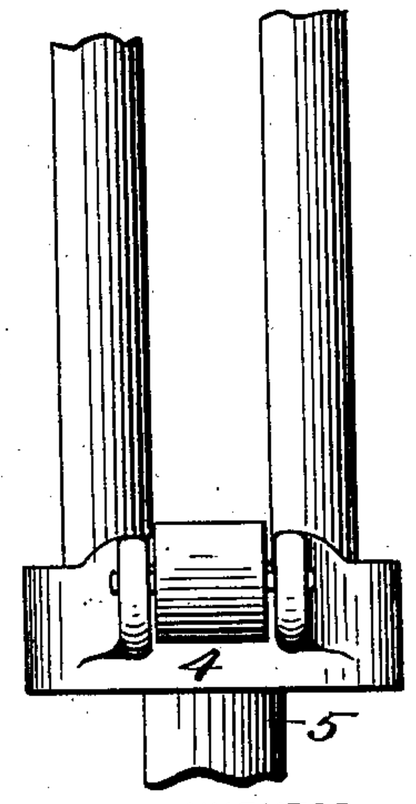


Fig. 2.







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No. 754,625. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

JUSTUS A. TRAUT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE STANLEY RULE & LEVEL COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 754,625, dated March 15, 1904.

Application filed April 24, 1903. Serial No. 154,053. (No model.)

To all whom it may concern:

Be it known that I, JUSTUS A. TRAUT, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Miter-Boxes, of which the following is a full, clear, and exact description.

My invention relates to miter-boxes, and particularly to the construction of the saw carrier or guide.

The purpose of the invention is to provide a carrier which may be adjusted to saw-blades of different thicknesses without twisting said blades.

In the drawings, Figure 1 is a side elevation of my invention. Fig. 2 is a sectional view on the plane of the line 2 2, Fig. 1, solid lines indicating one adjustment, the dotted lines indicating another adjustment. Fig. 3 is a side elevation of a modified construction. Fig. 4 is a front elevation of the construction shown in Fig. 3.

I have shown only such parts as are necessary to a full understanding of my invention.

The saw-carrier comprises two sections 1 1. These sections are pivotally mounted upon cylindrical posts 2 2, which constitute the guide proper. The carrier holds the saw, and the space between the two halves 1 1, which receives the saw-blade, is preferably enlarged at the upper end, as at 3, to receive the saw-back. In Fig. 1 I have shown the sections 1 1 as of semicylindrical form; but later it will be shown that the shape is not essential. As before indicated, these sections 1 1 are spaced apart to form the passage for the blade of the saw. This is seen in both Figs. 1 and 2. Since saws vary in thickness and since it is essential to fine work that the carrier fit fairly close to the saw-blade to properly steady the same in use, I have so constructed the parts that this passage may be readily adjusted as to width to receive saws of varying thicknesses.

The cylindrical guide-posts 2 2 are mounted in a base 4, Figs. 3 and 4, and this base 4 has a stud-like bearing 5, which may be fitted in the customary way to the usual swinging arm of a miter-box. This connection permits the base 4 to be rotatably adjusted on said swinging supporting-arm. This rotatable adjustment is utilized in effecting the adjustment of the sections 1 1 as to their distance from each other. For example, referring to Fig. 2, the dotted lines indicate the position of the sections 1 1, as shown in Fig. 1. The solid lines show the position of the parts when an adjustment has been effected to vary the space through which the saw-blade passes. This variation in adjustment is effected by rotating the base 4.

6 represents a portion of a saw-blade of a thickness adapted to fit the space between the parts shown in solid lines, Fig. 2. Obviously, if the line of the saw-blade 6 is preserved and the supporting-base of the saw-carrier is rotated to the right it will shift the two sections from the position indicated in solid lines to the position shown in dotted lines and widen the gap between them. The reverse is also true. In this way this space may be varied at will to receive a blade of any usual thickness. A particular advantage due to this construction resides in the fact that it is practically impossible to twist the saw out of line in effecting this adjustment. This is true because there are four distinct points of support. In the form shown in Figs. 1 and 2 these points are spaced apart on opposite sides of the guide-posts 2. These points are indicated at 7 8 and 9 10. The carrier-sections 1 1 being free to turn or rock on the post 2 2 and there being a set of saw-bearings on each side of the guide-posts 2 2 it is possible to adjust the carrier-sections to exactly the right spacing without twisting or buckling the saw-blade.

Substantially an equivalent construction is shown in the modification Figs. 3 and 4, in which instead of providing two separate sets of bearings on opposite sides of the posts a long bearing is provided for each side of the saw-blade, each of said bearings extending on each side of the guide-posts. In the modifi-

cation the saw-sections 11 11 are pivotally mounted or swiveled on the cylindrical guides 2 2 in a manner similar to the sections 1 1. (Shown in Figs. 1 and 2.) These plate-like carrier-sections are spaced apart to afford a passage for the saw and the saw-back, and in operation they may be adjusted in a manner similar to the sections 1 1.

What I claim is—

1. In a miter-box, an adjustable saw carrier and guide, the same comprising a pair of posts spaced apart and parallel with each other and a rotatable support therefor in common to both, a pair of sections to carry the saw, each of said sections being swiveled upon said posts whereby by rotating said support said sections may be swiveled thereon and the space between them through which the saw-blade passes varied, said sections having a saw-engaging range greater than their angular movement with said posts.

2. In a miter-box, an adjustable saw carrier and guide the same comprising a pair of posts spaced apart and parallel with each other, and a rotatable support therefor in common to both, a pair of sections to carry the saw, each of said sections being slidably mounted and swiveled on said posts whereby by rotating said support said sections may be swiveled thereon, and the space between them through which the saw-blade passes varied, said sections having a saw-engaging range greater than their angular movement with said posts.

3. In a miter-box, an adjustable saw carrier and guide, the same comprising a pair of cylindrical posts spaced apart and parallel with each other and a rotatable support therefor in common to both, a pair of sections to carry the saw each of said sections extending on each side of said posts to afford a broad bearing for a saw-blade, each of said sections being swiveled relatively to the axis of said posts whereby by rotating the support said sections may be swiveled and the space between them through which the saw-blade passes varied.

4. In a miter-box, a combined adjustable saw guide and carrier comprising a pair of cylindrical posts spaced apart and parallel with each other, a rotatable support therefor in common to both, a pair of sections each of said sections being of segmental form and arranged with their flat sides facing each other and each of said sections being swiveled upon said posts whereby by rotating said support the adjacent faces of said sections may be moved toward or away from each other.

Signed at New Britain this 3d day of April, 1903.

JUSTUS A. TRAUT.

Witnesses:

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E. G. HOFFMAN.