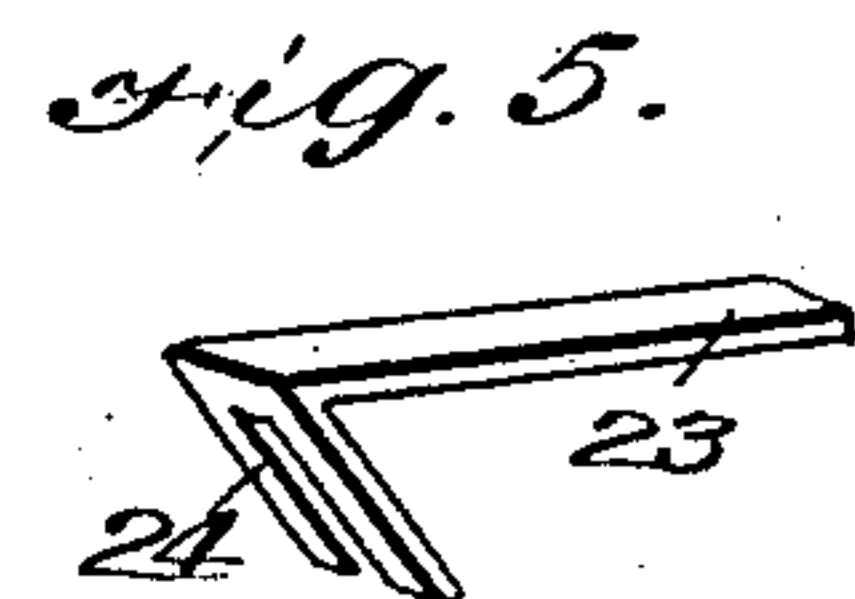
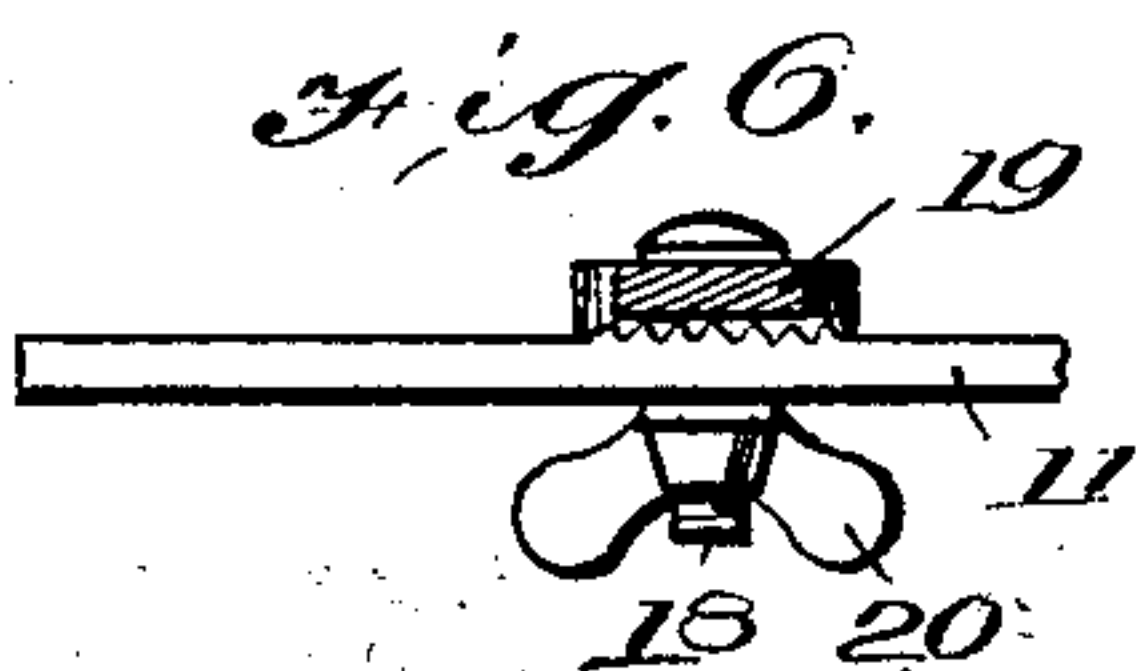
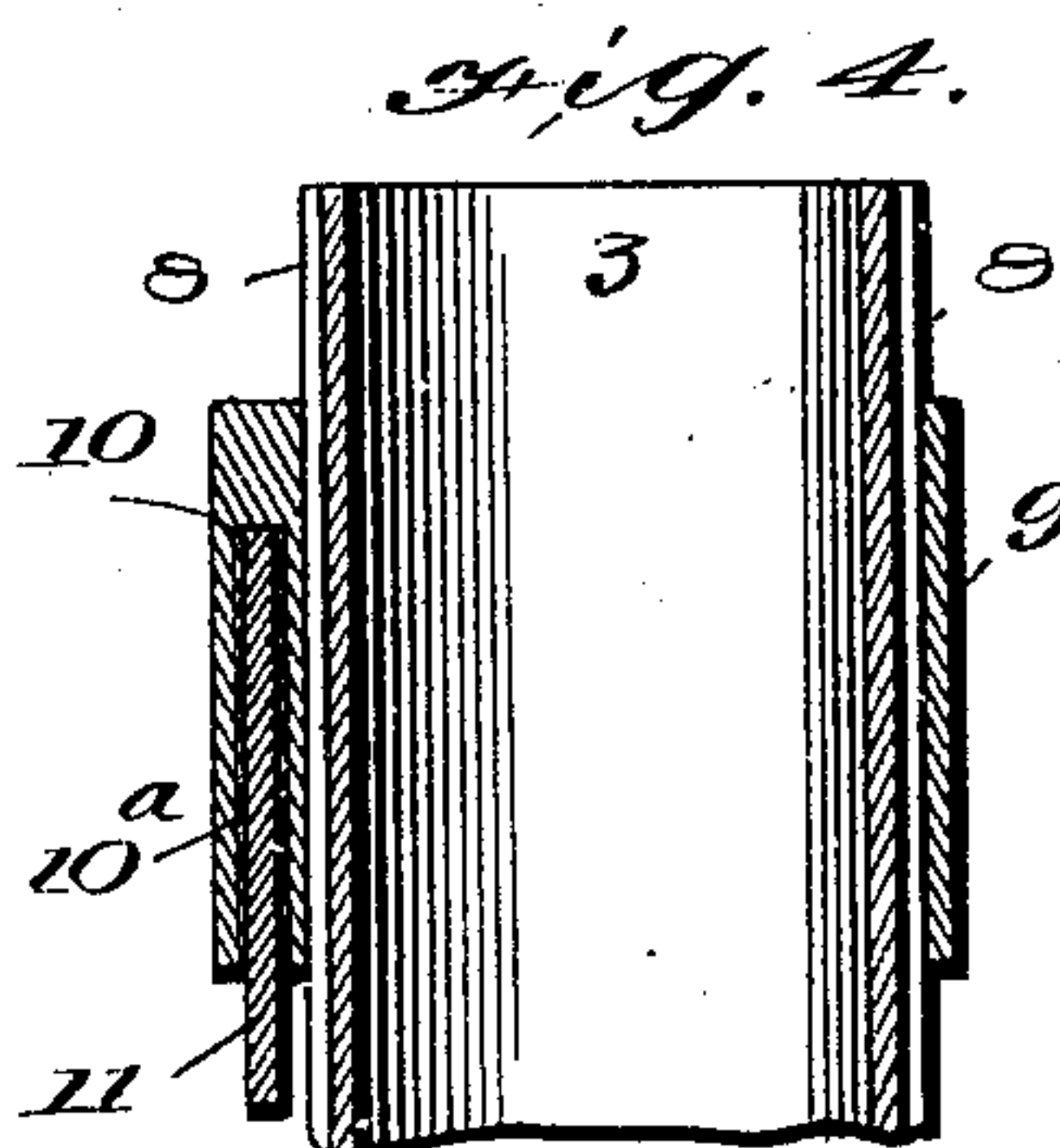
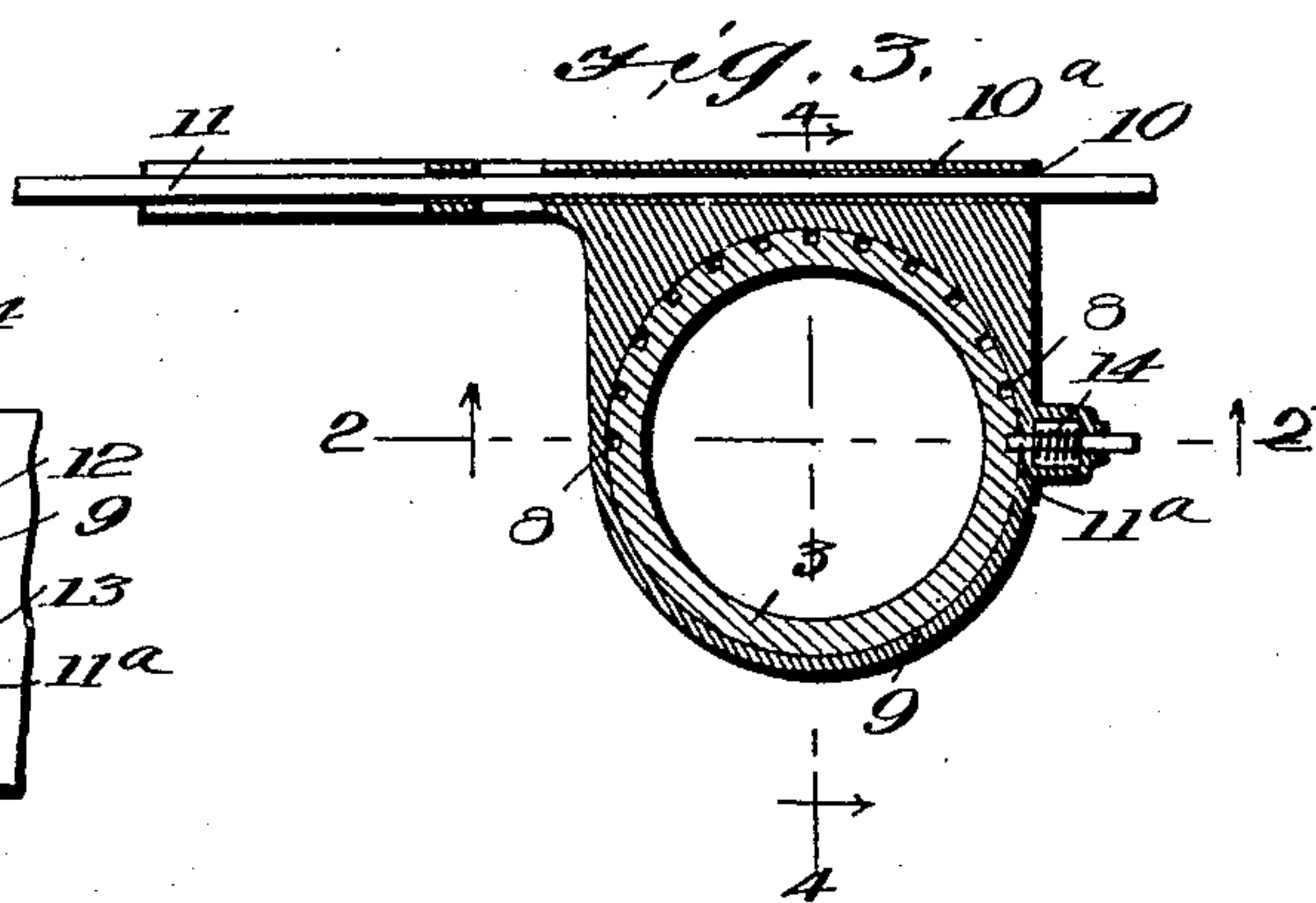
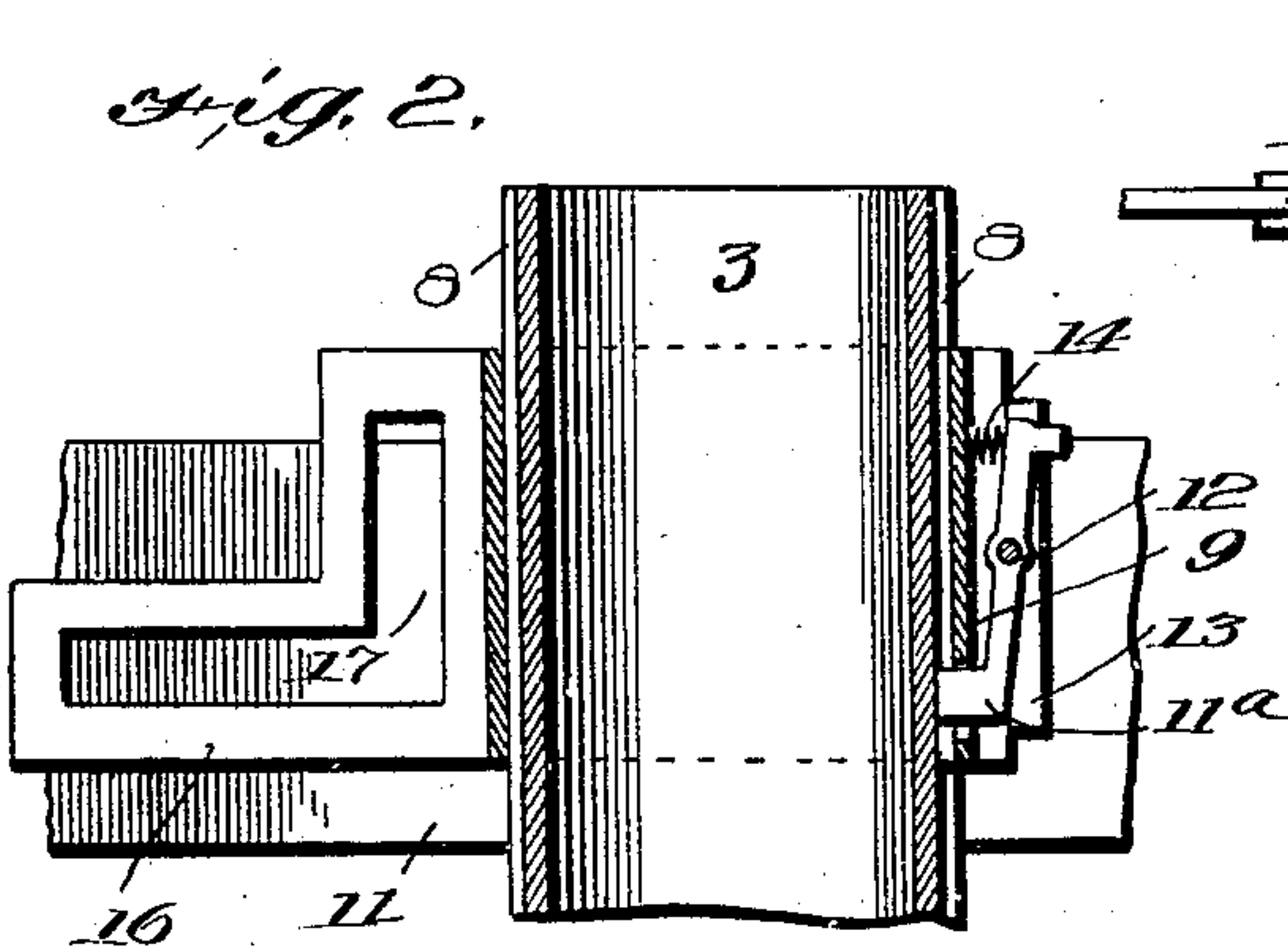
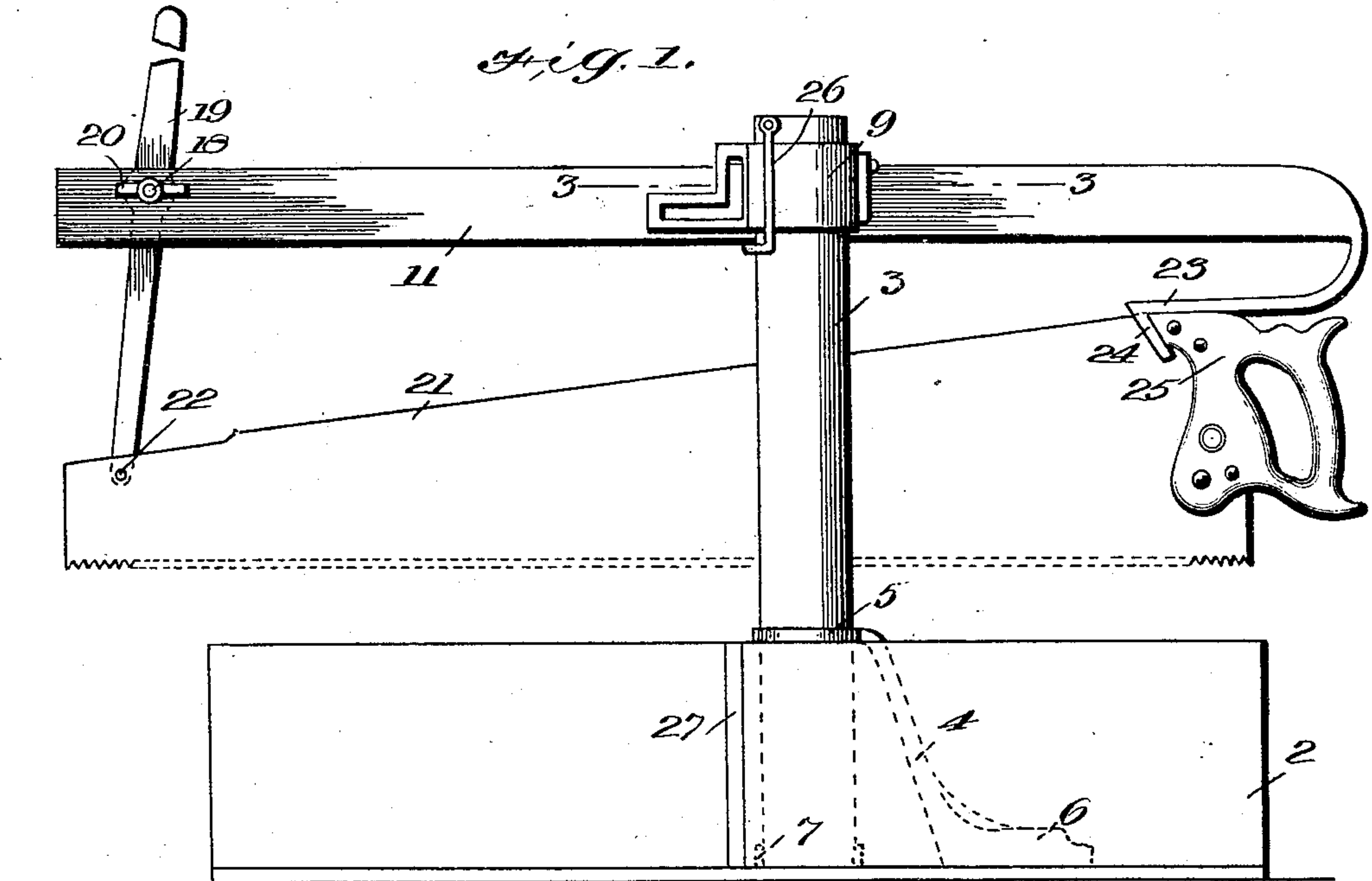


F. W. McLEAN.  
MITER BOX.  
APPLICATION FILED MAR. 5, 1909.

930,311.

Patented Aug. 3, 1909.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

FRANK W. McLEAN, OF WEST MONROE, LOUISIANA.

## MITER-BOX.

No. 930,311.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed March 5, 1909. Serial No. 481,323.

*To all whom it may concern:*

Be it known that I, FRANK W. McLEAN, a citizen of the United States, and a resident of West Monroe, in the parish of Ouachita and State of Louisiana, have invented certain new and useful Improvements in Miter-Boxes, of which the following is a specification.

My invention is an improvement in miter boxes, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

The object of the invention is to provide a device of the class mentioned, light and compact, and one that will permit the use of an ordinary hand saw by drilling a single hole therein, and with which the full length of the saw may be utilized.

A further object is to provide a box, which will insure a maximum of accuracy both as to angle and line.

Referring to the drawings forming a part hereof, Figure 1 is a side view of the improvement, Fig. 2 is a section on the line 2—2 of Fig. 3, Fig. 3 is a section on the line 3—3 of Fig. 1, Fig. 4 is a section on the line 4—4 of Fig. 3, Fig. 5 is a detail perspective view of the hook, Fig. 6 is a plan view of the end of the saw support partly in section.

The embodiment shown, comprises a box consisting of a base 1 and a side 2, and supported adjacent to the side is a post or standard 3, cylindrical in form and preferably braced against the bottom by a brace 4. The brace 4 comprises a ring 5 encircling the post, and a foot 6 secured to the base or bottom of the box, by any suitable means, and a step bearing 7, in which rests the lower end of the standard is secured to the bottom.

The post or standard may be removed from the ring and the step bearing, being merely seated therein, and packed in the box, when not in use. The post or standard is provided with a plurality of longitudinal grooves 8, and a sleeve bearing 9, is rotatably mounted on the post, the sleeve being also movable longitudinally with respect thereto. The sleeve is retained in its angular adjusted position by means of a catch 11<sup>a</sup>, pivoted as at 12, to a lug or bracket 13 projecting from the sleeve, the catch being normally pressed into engagement with a groove by a spring 14, and being provided with a head 15 projecting beyond the bracket for releasing the catch. The sleeve is provided at one side with a guideway 10, in which moves an

arm 11, and at one end of the guideway are projecting brackets 16, one arranged on each side of the guideway, and each provided with an angular slot 17. One end of the arm 11 is provided with an opening through which passes a threaded stem 18 secured to a bar 19, and the free end of the stem is engaged by a wing nut 20, whereby to clamp the bar against the arm. The lower end of the bar is pivoted to the saw 21, by a rivet or bolt 22, and the opposite end of the arm 11 is provided with a split hook 23, having an angular portion 24, for engaging the handle 25 of the saw, a portion of the hook being arranged on each side thereof, the saw blade being received in the split. A hook 26 is pivoted to the top of the post, and is adapted to engage the sleeve 9 or the arm 11, to retain the saw out of the way when putting in or removing work. The side 2 of the box is provided with a wide slit 27, for permitting the passage of the saw, the slit being near the post, and of a width sufficient to permit the saw to be used at any reasonable angle.

In operation, the work being in position, the catch is lowered, the arm is adjusted to the desired angle, and the catch is released. The arm or sleeve is released from the hook, which permits the saw to engage the work. Since the catch remains in engagement with the groove, whether the saw is up or down, as many cuts may be made as desired, with absolute accuracy, and with the certainty that every cut will be at precisely the same angle. When the wing nut 20 is screwed tight to clamp the arm and the bar together, there is no possibility of the disengagement of the handle of the saw from the split hook.

The arm 11 is milled on its side adjacent to the point of attachment of the bar and the bar is also milled, in order that the parts may be tightly clamped together. The guideway 10 is also bushed as at 109 with bronze or other suitable material.

I claim—

1. A device of the class described comprising a base, a standard detachably connected therewith, said standard having a plurality of parallel longitudinal grooves a sleeve provided with a guideway movable longitudinally of the standard and rotatable thereon, a spring actuated catch on the sleeve for engaging a groove, an arm movable in the guideway and provided at one end with a hook for engaging the handle of a saw, a bar provided with means for engaging the blade



of the saw, means for clamping the bar to the arm, and a hook pivoted to the top of the standard for engaging the sleeve to retain the saw in inoperative position.

5 2. A device of the class described, comprising a standard, a sleeve movable longitudinally of the standard and rotatable thereon, said standard being provided with spaced parallel longitudinal grooves, and the sleeve  
10 with a releasable catch for engaging the grooves, the sleeve being provided with a transverse guideway, an arm slidable in the guideway and means in connection with the arm for rigidly holding a saw in parallelism  
15 with the arm.

3. A device of the class described, comprising a standard, a sleeve rotatable on the standard and movable longitudinally thereof, means in connection with the standard and  
20 the sleeve for retaining the sleeve at a predetermined angular adjustment with respect to the standard while permitting it to move longitudinally thereof, the sleeve being provided with a guideway, an arm slidable in the  
25 guideway and means in connection with the arm for rigidly holding a saw in parallelism therewith.

4. In a device of the class described, a standard, an arm provided with means for  
30 rigidly retaining a saw in parallelism therewith, means for rotatably supporting the arm on the standard and for permitting it to move longitudinally thereof, and means for retaining the arm at a predetermined angular ad-  
35 justment with respect to the standard, while permitting it to move longitudinally thereof.

5. In a device of the class described, a standard, a saw support rotatable on the standard and movable longitudinally thereof, and means for locking the support at a pre- 40  
determined angular adjustment while permitting it to move longitudinally with respect to the standard.

6. In a device of the class described, a standard, a saw support movable longitudinally of the standard and rotatable thereon, means for permitting the rotation of the support, and means for engaging the support to retain the saw in inoperative position. 45

7. In a device of the class described, a standard, and a saw support rotatable on the standard and movable longitudinally thereof, said standard being provided with spaced parallel longitudinal grooves and a catch on the support for engaging a predetermined 55  
groove.

8. In a device of the class described, an arm provided at one end with a split hook for engaging the handle of a saw on opposite sides of the blade, a bar for connecting the 60  
other end of the arm with the blade of the saw, means for clamping the bar to the arm, and means for supporting the arm.

9. In a device of the class described, a saw support, a post upon which the support is 65  
rotatable and longitudinally movable, and means for constraining the support to move longitudinally of the post in parallel lines.

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Witnesses:

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