A. A. WILSON.

MITER BOX.

APPLICATION FILED SEPT. 16, 1909.

965,785. Patented July 26, 1910.

Fig. 1.

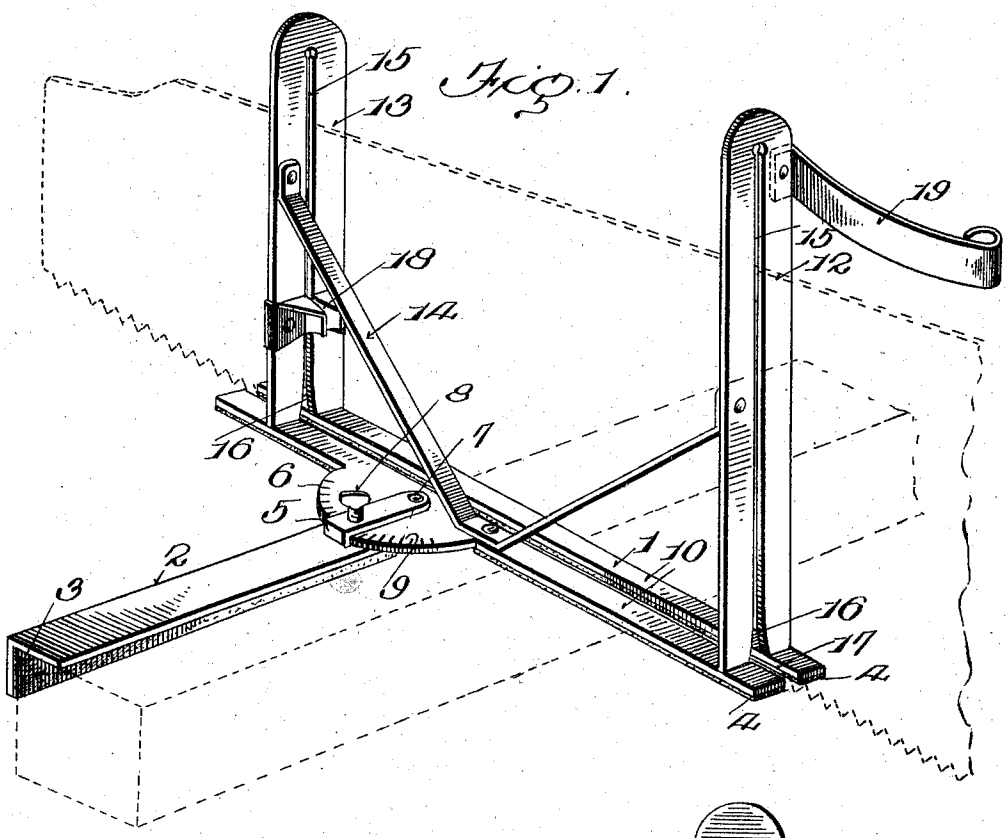
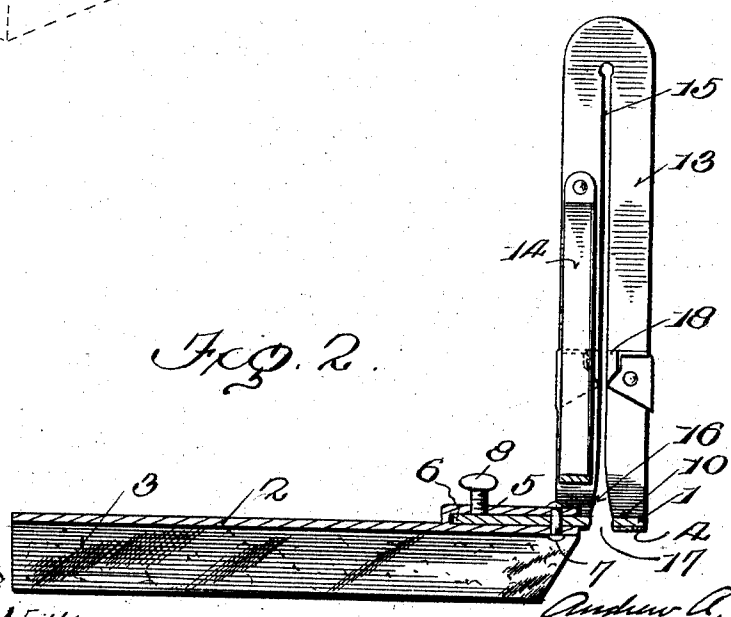


Fig. 2.



Witnesses

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ANDREW A. WILSON, OF ASHLAND, KENTUCKY.

MITER-BOX.

965,785. Specification of Letters Patent. Patented July 26, 1910.

Application filed September 16, 1909. Serial No. 518,086.

To all whom it may concern:

Be it known that I, ANDREW A. WILSON, of Ashland, in the county of Boyd and State of Kentucky, have invented certain new and useful Improvements in Miter-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide an improved miter box having features of construction which facilitate the use of such devices in cutting moldings, studdings, etc., as well as flooring and other flat or plain surfaces.

In the accompanying drawing, Figure 1 is a view in perspective of a miter box embodying my improvements. Fig. 2 is a sectional view of the connection between the bed plate and the adjustable arm.

Referring to the drawing, the miter box preferably consists of a bed plate 1 and an arm 2, these elements being relatively adjustable preferably by pivotally mounting one extremity of the arm on the bed plate so that the arm being held in one position the bed plate may be turned about the pivotal point and held at the desired angle to mark the line of cut to be made by a saw. I have shown the arm 2 right-angular in cross section so that it will conform to one edge of a plane surface and to aid in holding it by frictional contact I have lined one of the sides of the arm with rubber as at 3. This is also preferably provided on the bottom of the bed plate as at 4. The horizontal member of the arm 2 is shown equipped at its inner end with a spaced apart plate 5 between which and the arm is received a segment 6 forming an integral part of the bed plate 1. A bolt 7 forms the pivotal connection between the arm and bed plate, and a binding screw 8 passed through plate 5 holds the arm at the desired angle. The segment is provided with radial notches 9 indicating the miter to be cut.

The bed plate is shown comprising two parallel, spaced apart pieces 10 and a pair of uprights 12, 13, suitably braced to the bed plate as by angular braces 14. The uprights are slotted as at 15 to receive a saw and these slots, while of uniform width throughout the greater portion of their length, are widened or flared at their lower ends as at 16 where they intersect the slot 17 intermediate the pieces 10 constituting the bed plate. This construction has been found advantageous as it affords ample guiding surface without causing a degree of friction sufficient to retard the movement of the saw.

I have indicated an entrance guide on the upright 13 which, in use, is the one farther from the operator. This preferably consists of a pair of oppositely disposed flaring surfaces 18, one on either side of the slot. By this means the entrance of the free end of the saw into the slot is facilitated.

In use the saw is frequently pulled by the operator past the upright 13, in which event the surfaces 18 aid in guiding the saw on the return stroke without using the hand.

I also provide means by which the miter box may be carried on the saw and readily moved from one place of operation to another, without disturbing the angle or "set" of the miter. For this purpose I have shown the upright 12 provided with a spring plate 19 extending rearwardly and bent so that a portion of its surface intersects the plane of the slots in the uprights. When the operator finishes one cutting operation he may hold the box upon the saw by exerting the pressure of a finger upon the spring plate.

My improved miter box may be cheaply manufactured as it consists of but few parts which are readily assembled; the segment may be cast with the bed plate and so may the uprights, while the braces may be formed of a single piece of metal bent and secured as shown.

I claim as my invention:—

1. The herein described miter box having a base plate formed with a slot, a segment forming an integral part of said base plate, an arm right angular in cross section, a spaced-apart plate carried by said arm, said segment being sandwiched between said arm and plate, a bolt passed through said plate, said segment and said arm, and forming a pivot for the latter, and a binding screw carried by said plate.

2. In a miter box, the combination with a slotted base plate and the adjustable arm, of a slotted upright mounted on said base plate, and a spring plate carried by said upright and bent to lie in the plane of the slot in said upright, for the purpose stated.

3. In a miter box, the combination with a slotted base plate and the adjustable arm, of a pair of slotted uprights mounted on said

base plate, the upright normally near the free end of the saw having a pair of oppositely disposed guiding surfaces on opposite sides of the slot thereof, and extending toward the outer upright, for the purpose stated.

4. In a miter box, the combination with a slotted base plate 10 and an adjustable arm 2, of a pair of slotted uprights 12, 13, one near each end of said base plate, and an angular brace rod 14 secured at its center to said base and having each of its ends secured to one of said uprights, for the purpose stated.

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

ANDREW A. WILSON.

Witnesses:
J. S. HEAD, Jr.,
A. S. CONLEY.