E. W. McMILLAN.

SAW GUIDE FOR CUTTING MITERS.

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1,233,083. Patented July 10, 1917.

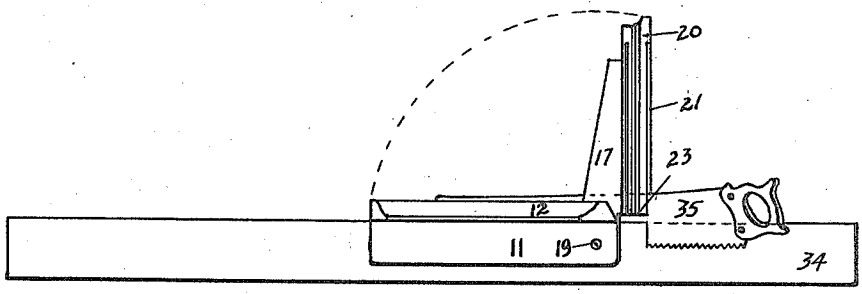


Fig. 4

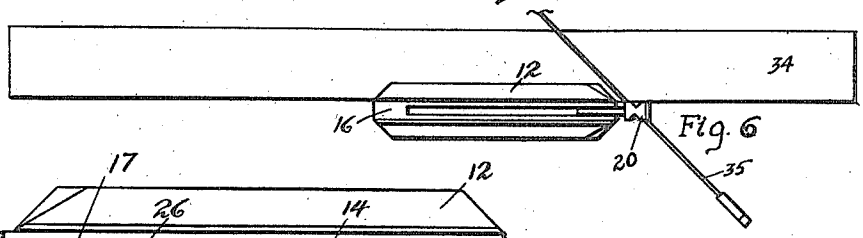


Fig. 6

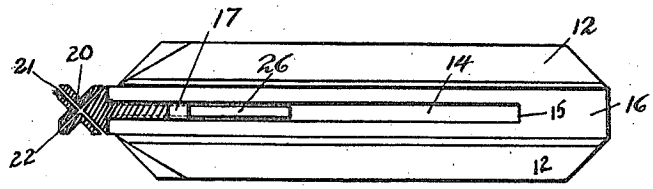


Fig. 3.

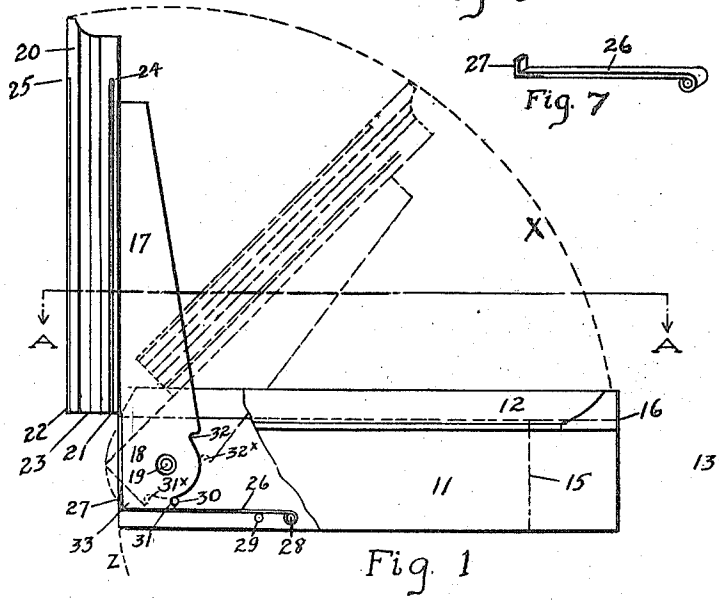


Fig. 1

Fig. 7

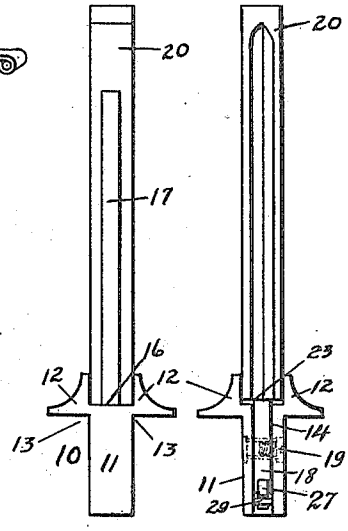


Fig. 2.

Fig. 5

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SAW-GUIDE FOR CUTTING MITERS.

1,233,083. Specification of Letters Patent. Patented July 10, 1917.

Application filed January 25, 1917. Serial No. 144,493.

To all whom it may concern:

Be it known that I, EDGAR W. McMILLAN, a resident of Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in a Saw-Guide for Cutting Miters, of which the following is a description, referring to the accompanying drawings, which form a part of this specification.

The invention comprises essentially a small tool, preferably formed of malleable iron, which a carpenter or workman may carry in his pocket; the objects of the tool being to act as an adjustable miter box or square for such uses as carpenters and other artisans may determine.

In the drawings, Figure 1 is a side view of the tool showing the scope of adjustment for the saw guide, with a portion of the base removed to expose the spring and pin stop.

Fig. 2. is a view of the right hand end of the tool seen in Fig. 1. Fig. 3, represents a section taken through the tool along the line A—A Fig. 1, and looking down in the direction of the arrows. Fig. 4 is a side view of the tool as placed upon a timber and with a saw blade in operative position within the tool for cutting a miter. Fig. 5 is a view of the left hand end of the tool seen in Fig. 1. Fig. 6 is a top view of the elements seen in Fig. 4. Fig. 7 is a perspective view of the spring as employed in Fig. 1.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings. Referring to the drawings, in Fig. 2 the base 10 of the tool comprises a base or stem 11 and two upper outwardly projecting edge portions 12, 12 which form right angled recesses at 13, 13 with the vertical stem 11. The base 10 is vertically slotted at 14 for a distance inwardly from the left end of Figs. 1 to 15 and as better shown in Fig. 3; and also a top longitudinal recess or groove 16 is provided between the edge portions 12 and 12.

A blade 17 adapted to close like a jack-knife has its base 18 housed within the slot 14 being pivoted to the stem 11 of the stalk 10 by an adjustable set screw 19. A guide member 20 is a component part of the left hand edge of the blade 17 as seen in Figs. 1 and 3. This guide 20 has two slots 21 and 22 extending upwardly for a distance from its base 23 to points 24 and 25 near the top of the saw guide. These slots intersect each other in the form of an X and are at right angles to each other and at 45 degrees to the horizontal longitudinal axis of the composite tool.

In Fig. 7 is seen a spring 26 having a hook end 27. This spring is shown seated within the left hand lower portion of the slot 14, Figs. 1 and 5 being secured by a pin 28 to the walls of the stem 11. At 29 is seen a supporting pin. A pin stop 30, above the spring 26 in Fig. 1, is attached to the walls of the stem 11 and the lower portion 18 of the blade 17 is rounded so as to ride against 30 as the blade shown in the dotted position 17^x is opened and closed through the arc X. The rounded base of 17 terminates at a spaced distance in the shoulders 31 and 32, each being adapted to strike against the pin stop 30 to control the position of the saw guide 20. In Fig. 1 the slots 21 and 22 of the guide stand at right angles to the under edges of 12, 12 at 13, since the shoulder 31, properly positioned, is in contact with the pin 30 and the spring 26 and hook end 27 operating through the arc Z has engaged the lower left hand corner 33 of 17. When the blade 17 is closed for compactness in carrying the tool, the shoulder 32 may strike the pin 30 and likewise a portion of the guide 20 drop within the groove 16 while the blade 17 closes within the slot 14. The shoulders 31^x, 32^x of the blade 17^x represent the shoulders 31 and 32 of 17 moving through the arc X.

In Fig. 4 the square edge 12 of the base 10 is shown placed on a board 34 while the guide 20 has been raised through the dotted arc to the position shown, which corresponds to the position seen in Fig. 1. A saw blade 35 has been inserted within the slot 21 of the guide 20 thereby enabling the miter to be properly cut as shown. If the blade is inserted in slot 22 the companion miter would be secured. It is obvious that by closing the blade a certain distance through the arc, that the guide can be set to cut any miter by first setting the adjustable screw 19 to clamp the parts in desired relationship.

It will be further observed that the base 23 of the guide 20 is above the top edge of the board 34, thus the saw teeth do not come in contact with the device and after the saw has entered the board or other material, the tool can be removed as the saw

will continue its cut on the set angle. The tool is useful as a square and to mark angles in manner familiar to those skilled in the art. Such modifications may be employed as are within the scope of the appended claims.

Having fully described my invention what I now claim as new and desire to secure by Letters Patent is:

1. In a tool for controlling the operative position of a saw blade, a slotted base having a vertical stem portion and two outwardly projecting edge portions, said edge portions forming right angled recesses with said stem portion; a blade member pivotally attached within said slotted base and set screw means for locking said blade in a desired fixed position; and a saw guide attached to said blade having two slots upwardly fashioned therein from the base of said guide, said slots intersecting each other at right angles, either slot being adapted to house the upper portion of a saw blade in the manner and for the purposes specified.

2. In a tool for controlling the operative position of a saw blade, a slotted base having a vertical stem portion and two outwardly projecting edge portions, said edge portions forming right angled recesses with said stem portion, either recessed portion being adapted to rest against an object as specified; a blade member pivotally attached within said slotted base and set screw means for locking said blade in a desired fixed position; and a saw guide attached to said blade having two slots upwardly fashioned therein from the base of said guide, said slots intersecting each other at right angles, either slot being adapted to house the upper portion of a saw blade in the manner and for the purposes specified.

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