No. 622,530. Patented Apr. 4, 1899.

V. A. PERNOT.

MITERING INSTRUMENT.

(Application filed Dec. 19, 1898.)

(No Model.)

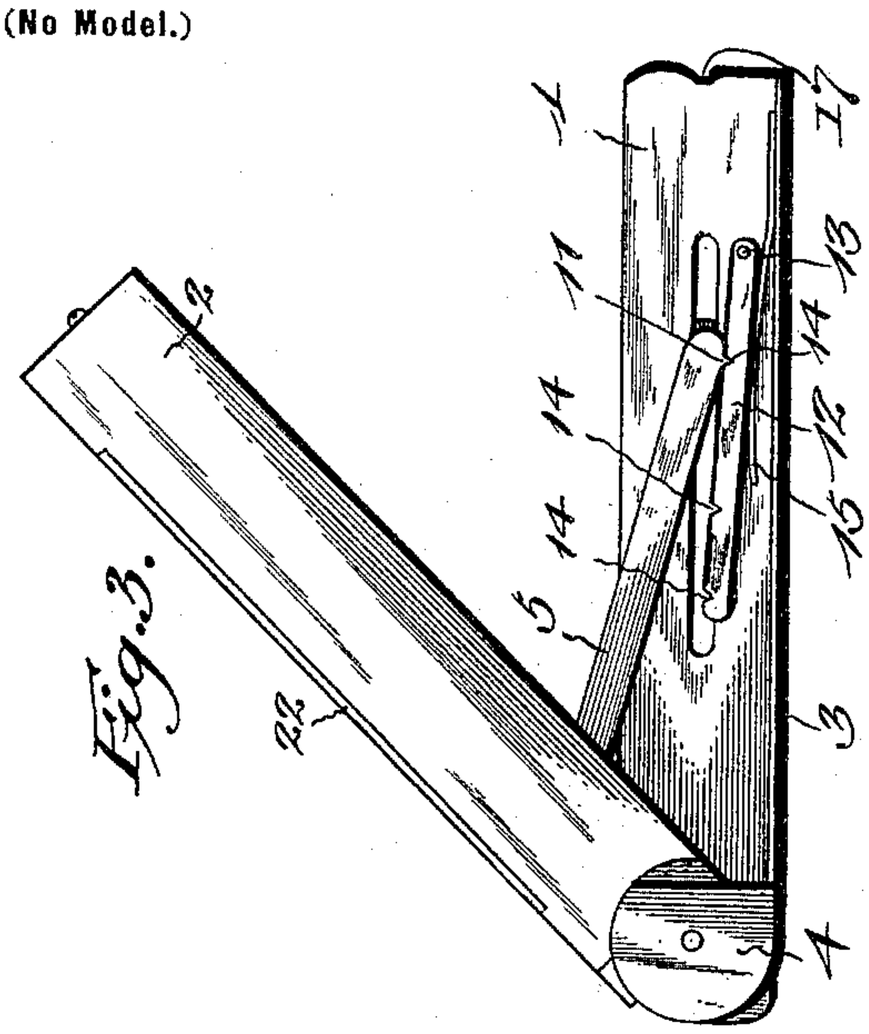

Fig. 3.

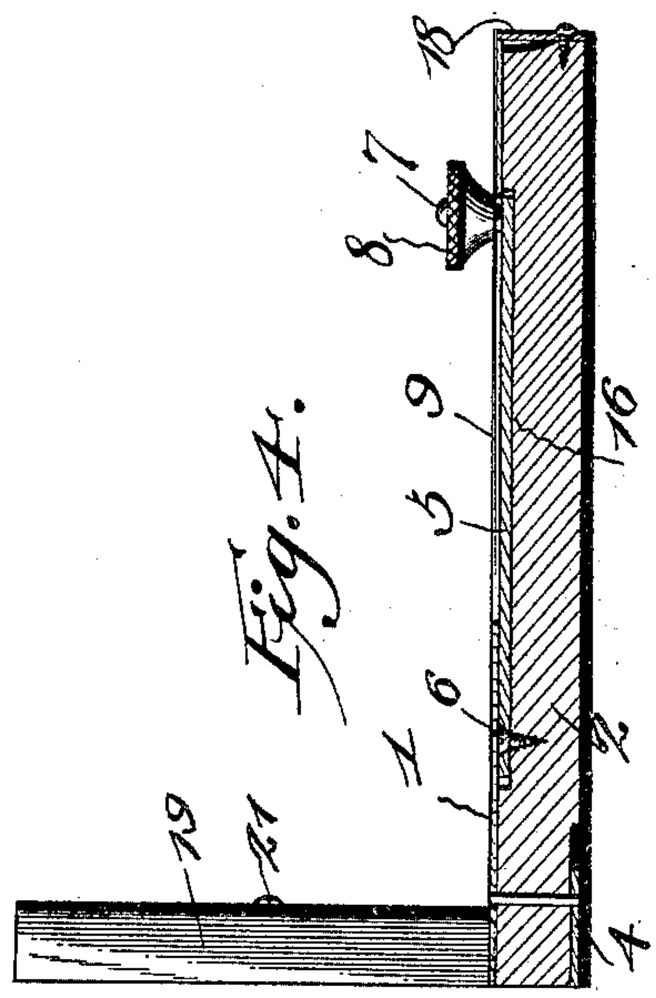

Fig. 4.

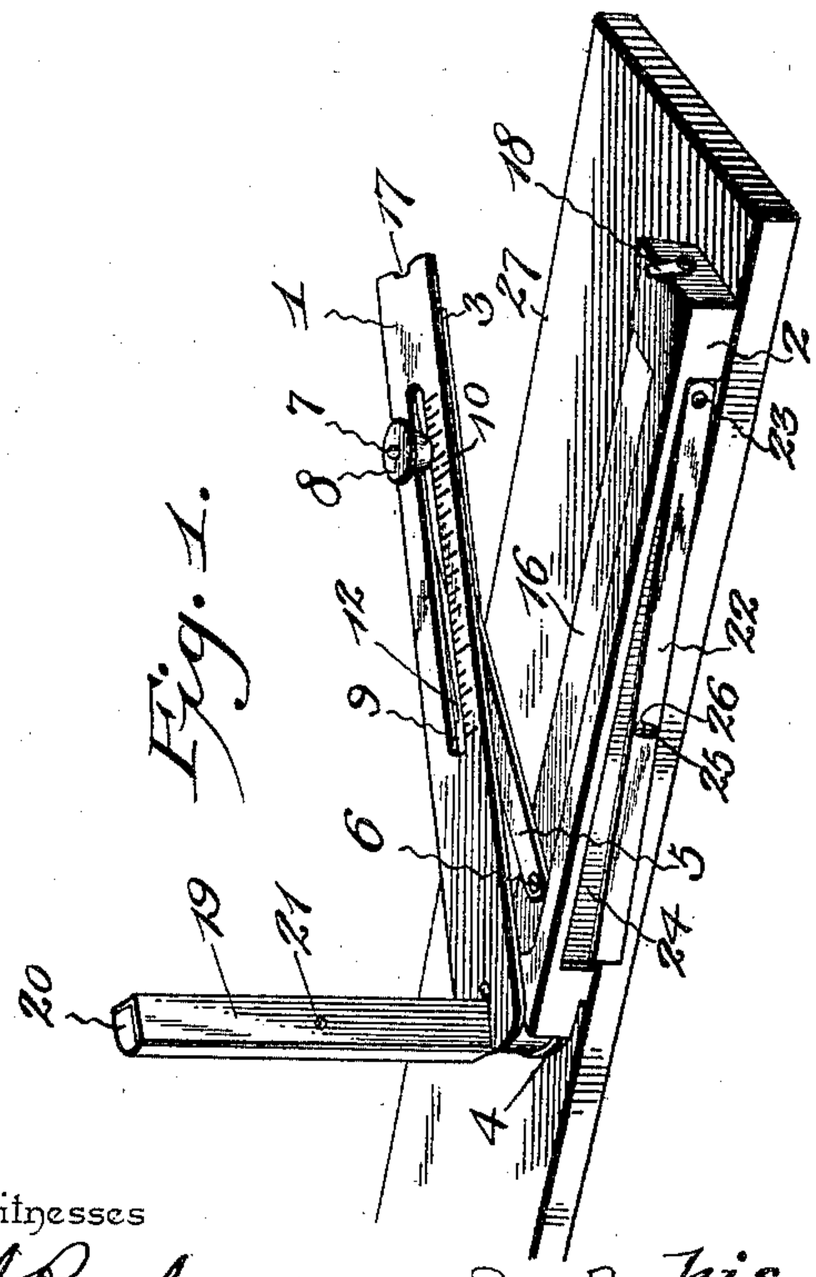

Fig. 1.

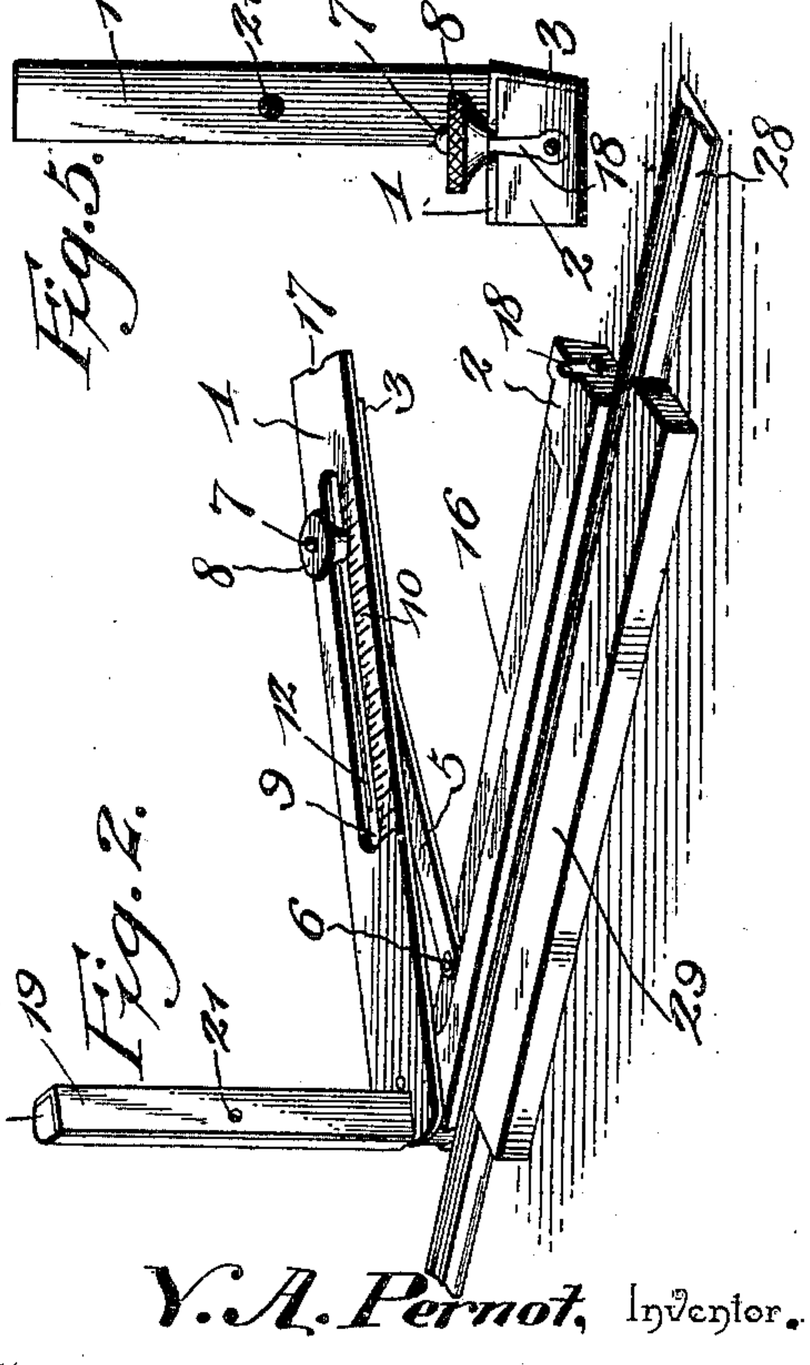

Fig. 5.

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

VICTOR A. PERNOT, OF COLEGROVE, CALIFORNIA.

MITERING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 622,530, dated April 4, 1899.

Application filed December 19, 1898. Serial No. 699,727. (No model.)

To all whom it may concern:

Be it known that I, VICTOR A. PERNOT, a citizen of the United States, residing at Colegrove, in the county of Los Angeles and State of California, have invented a new and useful Mitering Instrument, of which the following is a specification.

This invention relates to mitering instruments; and the object thereof is to provide a guide for the saw, means for adjusting the guide to different angles, and a stop whereby the instrument may be held substantially in position upon the board during the operation of sawing or marking off the desired angle.

To this end the invention consists in the combination and arrangement of the several parts, as hereinafter more fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the device applied to a board. Fig. 2 is a similar view applied to cut a strip of molding. Fig. 3 is an underneath plan view thereof. Fig. 4 is a longitudinal sectional view of the device folded. Fig. 5 is an elevation of the latch end of the device when closed together.

Like numerals of reference denote like and corresponding parts in each of the several figures of the drawings.

Referring to the accompanying drawings, 1 and 2 designate, respectively, the arms or members of the device. The arm 2 may be made of wood or metal, as desired; but the arm 1 is preferably formed of metal, having a flange 3 extending the entire length of the outer edge of the arm and inclined inward, as plainly shown in Fig. 5. A portion of the flange is bent or extended under the body of the member and at one end thereof, as at 4, and the other member 2 is pivoted between this flange and the body of the member 1. The pivoted ends of the arms are rounded, as shown, to form a hinge-joint. It will be noted that the member 1 is pivoted to the upper face of the member 2 and the lower edge of the flange 3 is in the same plane as the under face of the member 2, whereby the instrument may rest flat upon the board or other surface. The two members thus pivoted together are held at any adjusted position by means of an arm 5. This arm is pivoted at 6 near the hinged end of the member 2, and the other end thereof is provided with a threaded stem 7, having a thumb-screw 8. The stem of this arm is adapted to slide in a longitudinal slot 9, formed in the pivoted member 1. A graduated scale 10 is provided at one side of the slot, whereby the adjusting-arm may be regulated to adjust the device to any desired angle.

In order that the device may be quickly adjusted to the angles most commonly used, such as forty-five or ninety degrees, a ratchet mechanism is provided for the adjusting-arm. As shown, this arm extends under the body of the member 1 and is provided at or near its free end and upon its outer edge with a pointed lug or finger 11. A dog 12 is pivoted at 13 to the under side of the member 1 and arranged alongside of and upon the outside of the slot 9. The inner edge of this dog is provided with a number of notches 14, with which the lug of the adjusting-arm is adapted to engage and hold the members at the desired angle. A spring 15 is arranged against the outer edge of the dog to normally engage the latter with the finger of the arm. It will thus be apparent that it is simply necessary to open or close the members upon the pivot thereof until the adjusting-arm engages the dog at the desired point, when the set-screw 8 is tightened, which holds the device as adjusted. The lug 11 engages the notches of the dog and will hold the device as adjusted; but by means of force they may be disengaged and the device readjusted. Thus by this construction and arrangement of parts the device may be quickly adjusted to any of the commonly-used angles and may also be adjusted to any of the intermediate angles. The upper face of member 2 is provided with a recess or seat 16, open throughout its length upon the inner side of the member and adapted to receive the adjusting-arm and dog when the device is in folded position, as indicated in Fig. 4. The free end of member 1 is provided with a notch 17, and a spring finger or latch 18 is mounted upon the end of member 2, extending above the upper face thereof and adapted to engage the notch 17, whereby the members are locked together in their folded or closed position. The inner portion of the end of the member 1 is beveled or rounded to facilitate the engagement of the latch 18.

A guide-post 19 is provided at the pivoted or hinged end of the member 1 and extends at right angles to the plane of the instrument and flush with the outer edge of the member. The post is preferably formed of metal, being L-shaped in cross-section and having a filling of wood or suitable material 20 fitted in the angle portion thereof and removably secured therein by a screw 21 or by any other suitable or preferred means. The filling projects beyond the edge of the post to receive the side of the saw and forms a protector and prevents the saw engaging the metal post, and thereby obviating damage thereto. As the filling becomes worn it may be renewed as desired.

To hold the device in position upon a board, a guide or stop shoulder 22 in the form of an arm is pivoted at one end, as at 23, within a recess 24, formed in the outer edge of the member 2. A transverse slot 25 is provided intermediate the ends of this arm, and a pin or screw 26 engages the slot and forms a guide or stop for the arm.

In the operation of the device, as shown in Fig. 1, the members 1 and 2 are set to the desired angle, as heretofore described, and are then applied to the board. The stop 22 is pushed down upon its pivot and is engaged flush alongside the edge of the board, with the members 1 and 2 resting flush upon the upper face thereof. The device is steadied by one hand upon the member 2, and the saw-blade is placed against the outer flange edge of member 1 and the guide-post 19. The flange 3 being inclined inward or under the member 1, the teeth of the saw do not engage the flange, and the saw resting against the upright guide-post 19 insures a straight-edge cut.

To cut a strip of molding, the device cannot be placed thereon, as it is in the case of a flat board, and therefore, as shown in Fig. 2, the strip 28 is placed upon a bench or suitable support and engaging a transverse stop 29, when the device may be placed upon the top of the bench, with the member 2 against the edge of the molding, and then the strip may be sawed, as heretofore described.

It will thus be seen that the device may be used either upon boards or upon narrow strips of molding in a simple and effective manner. It can be applied to rafters to get the exact angle thereof, whereby others may be cut at the proper angle or miter. In the case of a board wider than the length of the device the latter is placed in position as described and the angle marked entirely across the board and a cut is made as long as possible. Then the device is folded together and is placed with its flange side upon the mark previously made, and another cut is made as before, and this operation is continued until the board has been entirely cut. The flanged edge insures a straight cut in the direction of the mark and the guide-post insures the end being cut at right angles to the plane of the board.

The instrument can be used as a try-square either by using the upright guide-post and angle members, or as an angle-square, as above described, for sawing angles.

Changes in the form, proportion, and minor details may be made without departing from the spirit and scope or sacrificing any of the advantages of the present device.

Having thus described the invention, what I claim is—

1. A mitering instrument, comprising a pair of angle members pivoted or hinged together at one end and foldable upon each other, and a guide-post for the saw, the post being carried by one of the members at the pivoted or hinged end thereof and flush with the outer longitudinal edge of the member, substantially as shown and described.

2. In a mitering instrument, the combination with a pair of angle members pivoted or hinged together at one end and foldable upon each other, the outer edge of one member forming a guide for the saw, of an arm pivoted to one of the members and having a slidable engagement with the other member, and means carried by the latter member and engaging the arm, whereby the latter may be automatically locked at a plurality of different predetermined adjustments of the members, and the latter are held as adjusted, substantially as shown and described.

3. In a mitering instrument, the combination with a pair of angle members pivoted or hinged together at one end and foldable upon each other, the outer edge of one of the members forming a guide for the saw, of an arm pivoted to one of the members and having a slidable engagement with the other member, a dog pivoted to the latter member, and a spring holding the dog in yielding engagement with the arm, whereby the latter may be automatically locked at a plurality of predetermined adjustments of the members, and the latter are held as adjusted, substantially as shown and described.

4. In a mitering instrument, the combination with a pair of members pivoted or hinged together at one end and foldable upon each other, the outer edge of one member forming a guide for the saw, of an arm pivoted to one member, having a lug or finger at its other end, and slidably mounted upon the other member, a dog pivoted to the latter member and provided with a plurality of notches in one edge, and a spring yieldingly engaging the dog with the arm, the finger of the latter being adapted to fit in the notches of the dog, whereby the arm may be automatically locked at a plurality of predetermined adjustments of the members, and the latter are held as adjusted, substantially as shown and described.

5. In a mitering instrument, the combination with a pair of members pivoted or hinged together at one end and foldable upon each

other, the outer edge of one of the members forming a guide for the saw, and the latter member having a longitudinal slot formed therein, of an arm having a threaded stem at one end and a thumb-nut therefor, the stem being slidably mounted in the slot of one of the members, and the arm adjustable therein by means of the thumb-nut, the other end of the arm being pivoted to the other member, and means carried by the slotted member and engaging the slidable end of the arm, whereby the latter may be automatically locked at a plurality of predetermined adjustments of the members, and the latter are held as adjusted, the thumb-nut being adapted to lock the arm at the intermediate adjustments, substantially as shown and described.

6. In a mitering instrument, the combination with a pair of members pivoted or hinged together at one end and foldable upon each other, the outer edge of one of the members forming a guide for the saw, of an arm pivoted at one end to one of the members, and having at its other end a slidable engagement with the other member, means for automatically locking the slidable end of the arm at a plurality of predetermined adjustments of the members, and means for manually locking the arm at the intermediate adjustments, whereby the members may be held as adjusted, substantially as shown and described.

7. A mitering instrument, comprising a pair of members pivoted or hinged together and foldable upon each other, one of the members being pivoted to the other and provided with a depending longitudinal flange upon its outer edge, the lower edge of the flange being in the plane of the lower face of the other member, whereby the instrument may rest firmly upon a board or other surface, substantially as shown and described.

8. A mitering instrument, comprising a pair of members pivoted together and foldable upon each other, one of the members being pivoted to the upper face of the other member and provided with an inwardly-inclined depending flange upon its outer longitudinal edge, the lower edge of the flange being in the plane of the lower face of the other member, whereby the instrument may rest flat upon a board or other surface, and the inward inclination of the flange disposing the same out of the way of the teeth of the saw, substantially as shown and described.

9. In a mitering instrument, the combination of a pair of members pivoted together and foldable upon each other, one of the members being pivoted to the upper face of the other member, and provided with an upright post, flush with the outer edge of the said member, and a depending inwardly-inclined flange upon its outer longitudinal edge, the lower edge of the flange being in the plane of the lower face of the other member, whereby the instrument may rest flat upon a board or other surface, the upright post forming a guide for the saw, and the inward inclination of the flange disposing the same out of the way of the teeth of the saw, substantially as shown and described.

10. In a mitering instrument, the combination with a pair of members pivoted together and adapted to rest upon the same surface, of an arm pivoted to one of the members and adapted to be thrown downward upon its pivot and below the lower face of the member, to engage the edge of the board being sawed, and form a stop for the instrument, substantially as shown and described.

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

VICTOR A. PERNOT.

Witnesses:

WILLIAM PERRY SCHLOSSER,

FRANK LEWIS.