A. LINDER.

CARPENTER'S SQUARE.

APPLICATION FILED OCT. 31, 1908.

929,146. Patented July 27, 1909.

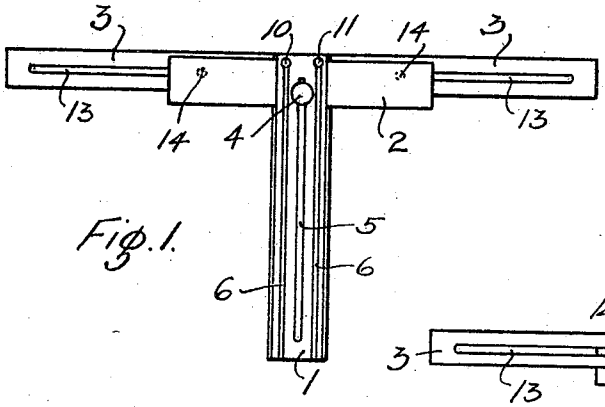


Fig. 1.

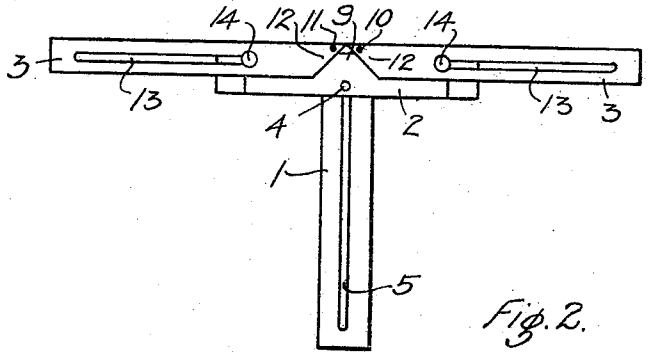


Fig. 2.

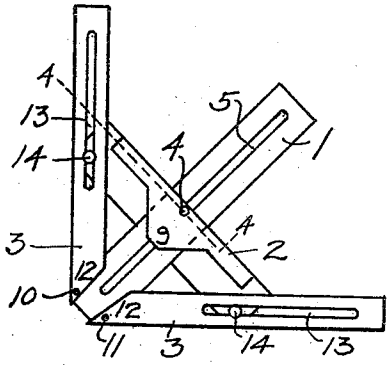


Fig. 3

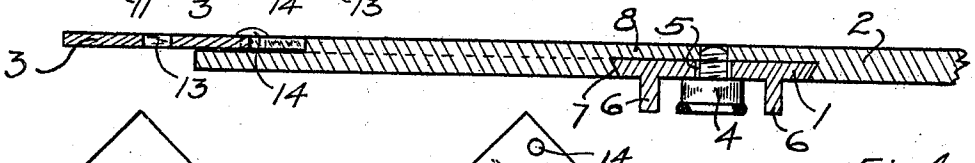


Fig. 4.

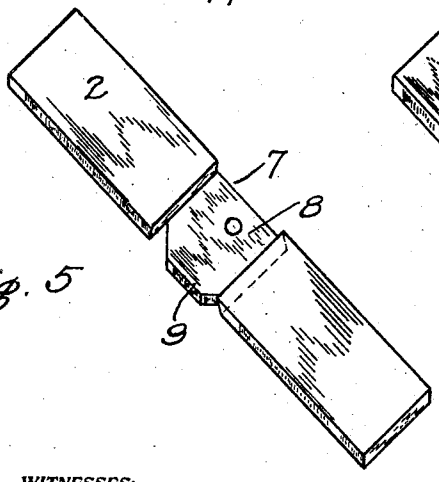


Fig. 5

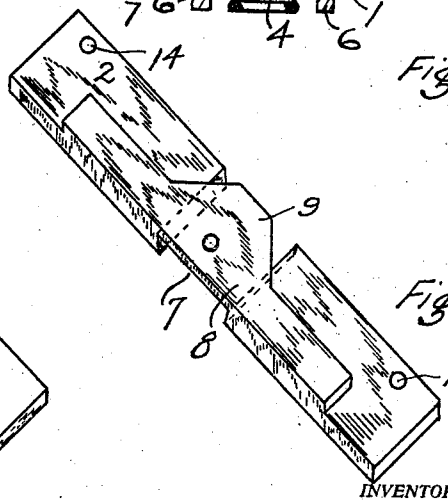


Fig. 6.

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UNITED STATES PATENT OFFICE.

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CARPENTER'S SQUARE.

No. 929,146. Specification of Letters Patent. Patented July 27, 1909.

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To all whom it may concern:

Be it known that I, ANDREW LINDER, a citizen of the United States of America, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Carpenters' Squares, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to tools and especially to squares such as are used by carpenters and has for its object to provide an adjustable tool by means of which a user can have either the usual right angle T-square, or a ruler to set off any desired angle for a miter cut, or the complement of said angle.

A further object is to provide a tool which will lie flat on the object to be marked.

I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 is a plan of the lower side of my improved square extended to form a T-square; Fig. 2 is a similar view of the upper side thereof; Fig. 3 is a plan of the upper side thereof when the square is partly folded to form a ruler to set off a pair of complementary angles; Fig. 4 is a vertical section on the line 4—4 in Fig. 3; Figs. 5 and 6 are perspective views of the lower and upper sides respectively of the sliding cross-piece.

Similar numerals of reference refer to similar parts throughout the several views.

This tool is made of a tail-piece 1, a cross-piece 2 sliding on the tail-piece 1, and two T-arms 3 pivoted to the tail-piece 1 and engaged and controlled by the sliding cross-piece 2; and a thumb-screw clamp 4 holding the cross-piece 2 in any position on the tail-piece 1. The tail-piece 1 is rectangular in form and is provided with a central slot 5 extending almost its entire length, and with two parallel flanges 6 on its lower side, one on each side of the slot 5, the said flanges to be used to place against the edge of the piece to be marked. The side edges of the tail-piece 1 are beveled. The cross-piece 2 is provided with a central beveled groove 7 into which the beveled sides of the tail-piece 1 fit so that said cross-piece 2 can slide bodily on said tail-piece 1 without any lateral or wabbly motion thereon. The thumb-screw 4 is screwed into a hole in the cross-piece 2, through the slot 5 in the tail-piece 1 and between the flanges 6 and has a shoulder adapted to bear against the surface of the tail-piece 1 to draw the parts 1 and 2 together and firmly clamp them so that the cross-piece cannot slide on the tail-piece while they are clamped by the thumb-screw 4. A part of the upper surface of the cross-piece 2 is cut away, as plainly shown in Fig. 6, on a level with the top of the groove 7 in which the tail-piece 1 slides, thus leaving a bridge part 8 extending across the groove 7. The forward side of the bridge part 8 is provided with a projection lug 9 extending out to the forward edge of the cross-piece 2 and having its sides cut at an angle of 45 degrees, as shown. The two T-arms 3 are pivoted at 10 and 11 to the two forward corners of the tail-piece 1 and have their adjacent ends 12 cut away on an angle of 45 degrees to fit the lug 9 when the cross-piece 2 is slid to the forward end of the tail-piece. Each T-arm has a longitudinal slot 13 in which the screw pins or rivets 14, secured to the cross-piece 2, freely slide. The rivets 14 are placed near the forward corners of the cross-piece 2. It will be readily understood that as the piece 2 slides on the piece 1 it causes the two T-arms 3 to change their angles with the said tail-piece, equally and oppositely, since they are both pivoted to the tail-piece 1 and are swingingly secured to the cross-piece 2.

In practice I provide certain markings on the various surfaces of the parts to facilitate its use by carpenters and the like in laying off bevels for roofs or other similar work. As a brief description of the said markings would facilitate the use of this tool I insert it here. On the upper side of the tail-piece are two sets of markings across which the cross-piece passes. On the right side is a set indicating the position of the cross-piece for cutting the bevel of a rafter, when the relative rise per foot of span is known, the figures thereon indicating the rise; on the left side is a different set of markings, with the same figures, indicating the position of the cross-piece for cutting the bevel of a valley rafter for the same roof; and on the lower side of the tail-piece are a set indicating the position of the cross piece for cutting the rafter to fit the valley. On the under side of the cross-piece are two sets of figures indicating, in the one case, the length of a rafter per unit span for various rises, and in the other case the corresponding length of the valley rafter. The upper forward edge

of the T-arms is marked in inches from end to end.

Having described my invention what I claim is—

In a device of the class described, the combination of a tail-piece having a central longitudinal slot thereon; a pair of setting flanges formed on the lower side of said tail-piece on each side of said slot; a cross-piece slidable along said tail-piece and maintained at right-angles thereto; a pair of T-arms pivoted to the end of the tail-piece and provided with longitudinal slots therein; pins mounted on the ends of said cross-piece and engaging in the slots in the T-arms; and a clamp screw in the cross-piece and passing through the central slot in the tail-piece between the setting flanges and adapted to clamp said pieces in any position of the cross-piece on the tail-piece.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW LINDER.

Witnesses:

A. M. Richards,

O. Hostetter.