April 10, 1951 C. L. COMBS 2,548,350

GRADUATED T-SQUARE

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Fig. 1.

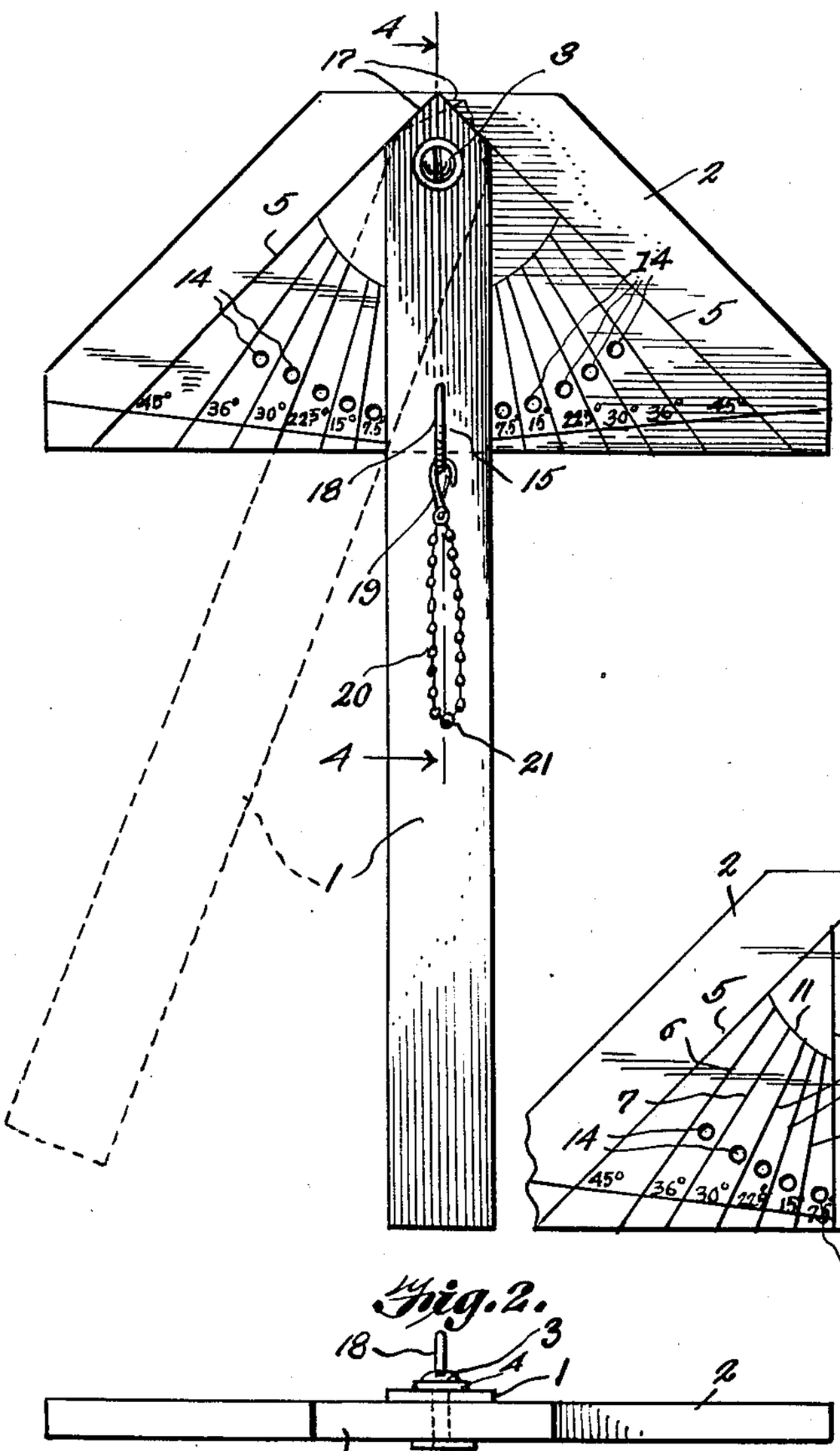


Fig. 4.

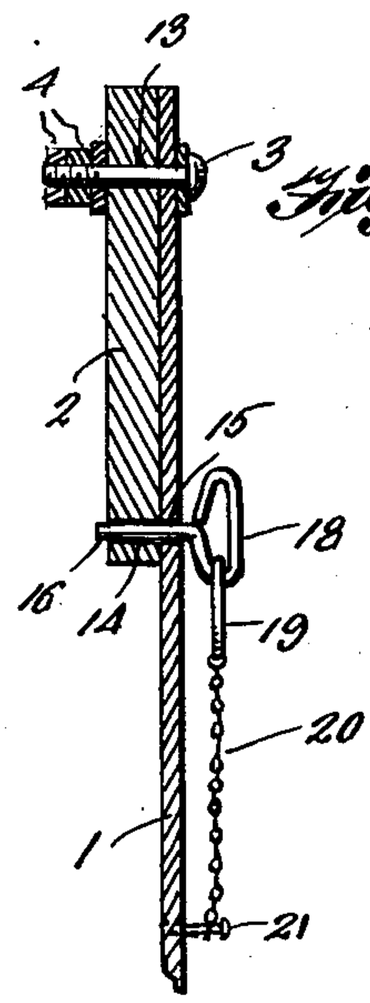


Fig. 5.

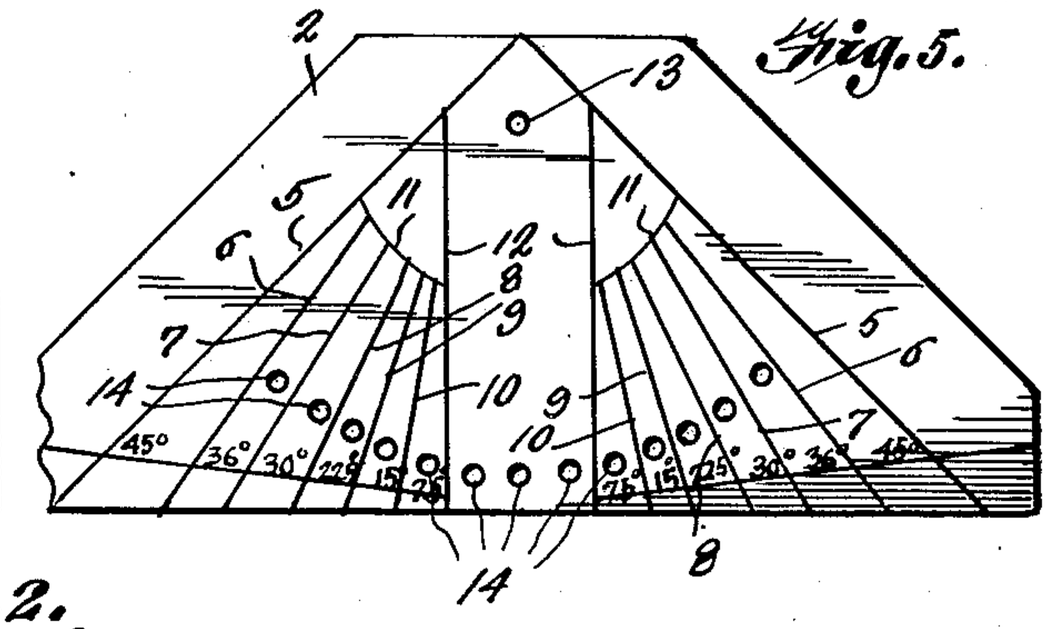
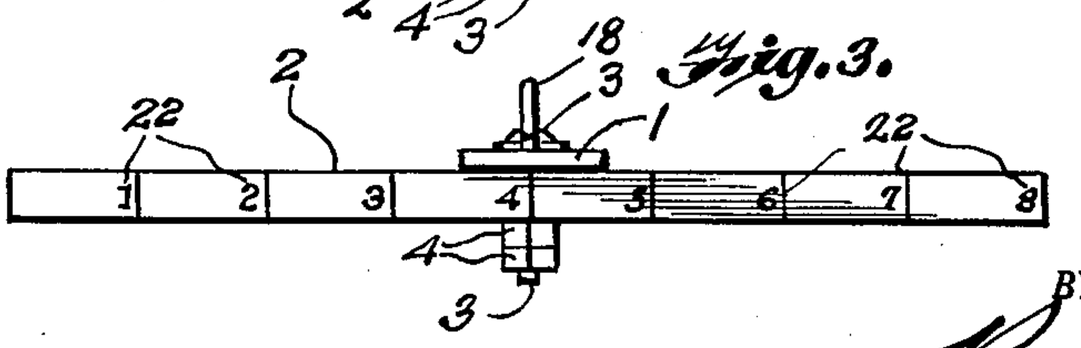


Fig. 2.

Fig. 3.



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GRADUATED T-SQUARE

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1 Claim. (Cl. 33—100)

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This invention relates to a graduated T-square and it is one object of the invention to provide a T-square which may be used by carpenters and designers for laying off cuts to be made in order to provide proper fit of boards, or the like, used for forming columns and other structures wherein predetermined angles must be employed.

Another object of the invention is to provide a T-square having its blade pivoted to its cross head for swinging movement to adjusted positions, the cross head being provided with scale markings so that when the device is in use the blade may be accurately moved to a predetermined angle and then secured in a set position so that boards may be marked and all cut at the same angle and then assembled to form a column or other structure of desired outline in cross section.

Another object of the invention is to provide a T-square wherein the pivotally mounted end of the blade is so shaped that when side edges of this end portion of the blade is aligned with certain of the scale marking on the cross head the blade will extend at right angles to the inner side edge of the cross head.

Another object of the invention is to provide the T-square with a blade which is securely, but releasably, held in an adjusted position by a pin passed through registering openings in the blade and the cross head and so formed that it may be easily thrust through or withdrawn from the registering openings of the blade and the cross head.

Another object of the invention is to provide an adjustable T-square, wherein the pin for releasably securing the blade in a set position carries a looped chain secured to the blade and thus prevent loss of the pin in case it should slip out of registering openings in the blade and the cross head.

The invention is illustrated in the accompanying drawings wherein:

Fig. 1 is a top plan view of the improved T-square.

Fig. 2 is a view looking at the outer side of the cross head of the T-square.

Fig. 3 is a view looking at the free end of the blade and the inner side edge of the cross head.

Fig. 4 is a sectional view taken along the line 4—4 of Figure 1.

Fig. 5 is a plan view of the cross head with the blade removed.

This improved T-square is primarily intended for use by carpenters when marking boards so

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that they may be cut and then used for building columns and other structures which are to have a predetermined number of side faces, all of which are at the same angle to each other, the T-square has a blade 1 and a cross head 2, the blade being formed from a thin strip of wood, or other suitable material, and the cross head being quite thick in comparison to the blade. The blade rests upon the upper face of the cross head and has its inner end portion pivotally connected with the cross head by a fastener, such as the bolt 3. By using a bolt as a fastener for pivotally mounting the blade upon the cross head the blade may be securely held at right angles to the inner side edge of the cross head when the nuts 4 of the bolt are tightened. When the nut is loosened slightly the blade may be swung about the bolt as a pivot and moved from a position at right angles to the cross head to other angles and the square then used for marking lines at desired angles upon a board to be cut. Upon the upper face of the cross head there has been provided a scale consisting of a number of lines 5, 6, 7, 8, 9, and 10, the lines 5 intersecting at the outer side edge of the cross head and the lines 6 through 10 terminating at the arcuate lines 11. The lines 5 are 45 degree angles and so marked and the lines 6 through 10, are marked respectively for angles of 36, 30, 22.5, 15 and 7.5 degrees. It will be understood that additional lines marked for other angles may be provided if so desired. Straight lines 12 extend at right angles to the side edges of the cross head and located at equal distances from opposite sides of the opening 13, through which the bolt 3 passes and these lines 12 are spaced from each other a distance corresponding to the width of the blade 1, so that when the blade is at right angle to the cross head it will fit between the lines 12, as shown in Figure 1. Openings 14 are formed through the cross head along an arcuate path, and from an inspection of Figure 5, it will be seen that the center one of these openings is located directly opposite the opening 13, so that when the blade is swung to a position in which its opening 15 is in registry with this center opening and a pin or key 16 passed through them the blade will be securely held in a position at right angles to the inner or front side edge of the cross head. It should also be noted that the pivoted rear end of the blade has been cut to provide edges 17 which intersect at an angle of 45 degrees to each other and register with the 45 degree lines 5 when the blade is at right angles to the side edges of the cross head. The blade will thus be positioned

midway the width of the cross head and at right angles thereto and a person using the T-square may check its position of the blade by noting the relation of its edges 17 relative to the lines 5 and its side edges relative to the lines 12. The pin 16, by means of which the blade is releasably secured in a set position, is formed from a strand of stiff wire which is bent to provide the pin with a loop 18, serving as a handle or finger hold by means of which the pin may be readily grasped, and this handle is engaged by a hook 19 carried by a looped chain 20. The looped chain is connected with a small nail 21 carried by the blade in order to prevent loss of the key if it should accidently slip out of the openings formed through the blade and the cross head. Inch markings 22, which are provided upon the front side, edge face of the cross head allow use of the cross head as a foot rule by a carpenter or other person using the T-square.

Having thus described the invention, what is claimed is:

A T-square comprising a cross head having a straight front edge, a blade resting flat upon the upper face of said cross head and projecting from the front edge thereof, the rear end portion of the blade having diagonally extending side edges converging rearwardly and intersecting at the rear end of the blade midway the width thereof, a bolt passing through the rear portion of the blade midway the width thereof and through the cross head and pivotally mounting the blade for movement from a position at right angles to the front edge of the cross head to angularly adjusted positions in which it extends towards a selected side thereof, the upper face of the cross head having thereon a scale consisting of an arcuate line concentric with said bolt and guide lines extending at predetermined angles in transverse spaced relation to each other

between the arcuate line and the front edge of the cross bar and converging rearwardly, said guide lines being accompanied by degree markings, and ones of the guide lines intersecting at the rear edge of the cross head and registering with the diagonal side edges of the rear end of the blade when the blade is disposed at right angles to the front edge of the cross head, the cross head being formed with openings disposed between and companion to the scale lines and arranged in an arcuate path concentric with the bolt, the blade being formed with an opening midway its width and in position for successively registering with the openings in the cross head as the blade is swung about the blade to angularly adjusted positions, and a pin for passing through registering openings of the blade and the cross head and releasably holding the blade in an adjusted position, said pin having its outer end portion formed with an eye constituting a turning head extending transversely of the pin.

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