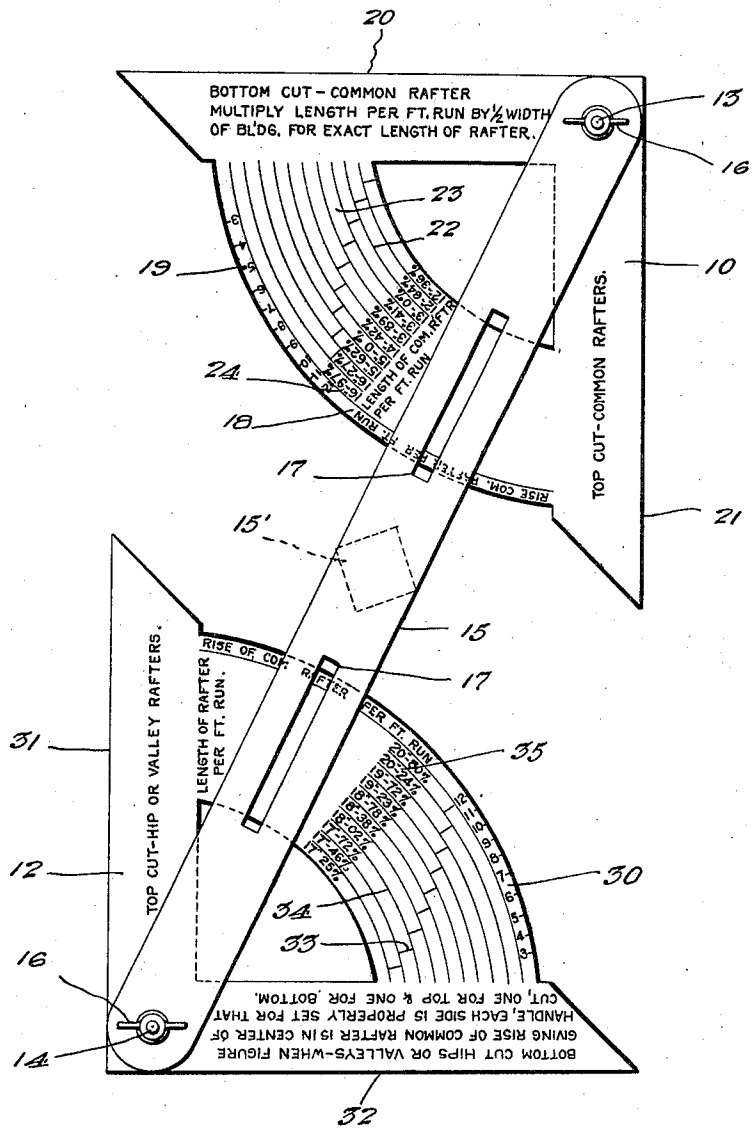
Feb. 12, 1924. 1,483,761

W. T. YOUNGBLOOD

COMBINED ROOF SQUARE, TRY SQUARE, AND BEVEL SQUARE

Filed June 5, 1922 2 Sheets-Sheet 1

Fig. 1.



W. T. Youngblood. INVENTOR

BY Victor J. Evans ATTORNEY

Paul M. Hunt.

WITNESS:

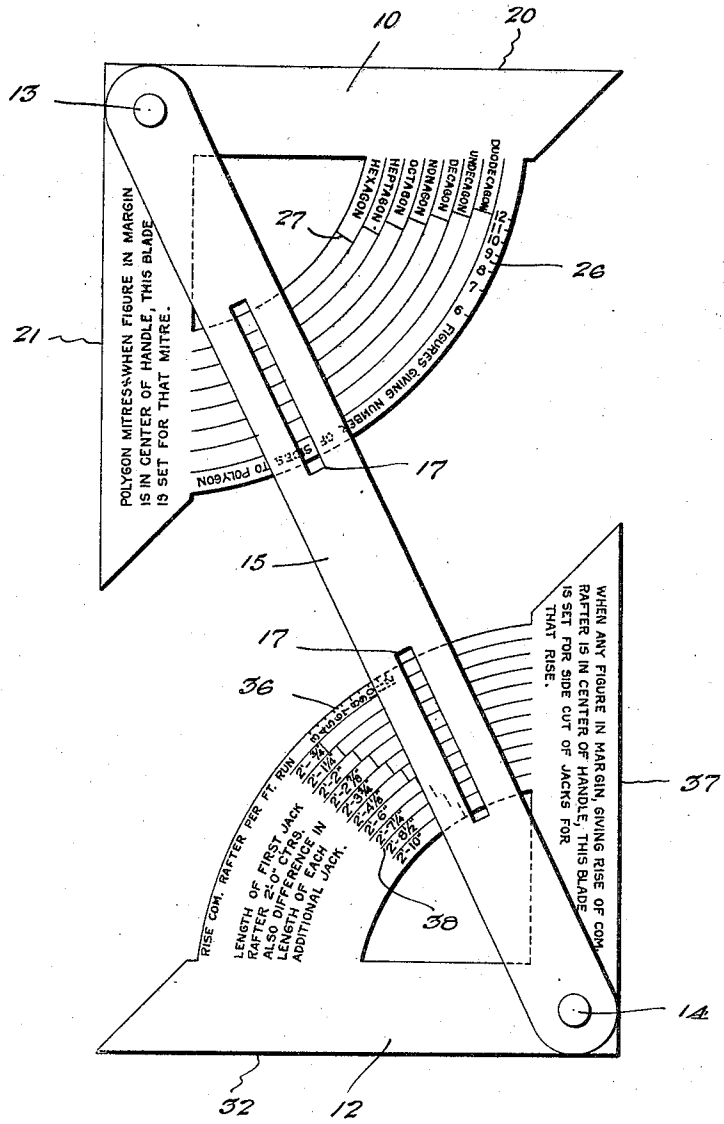
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Fig. 2.



W. T. Youngblood INVENTOR

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WITNESS:

Patented Feb. 12, 1924. 1,483,761

UNITED STATES PATENT OFFICE.

WESLEY THEODORE YOUNGBLOOD, OF PORT ARTHUR, TEXAS.

COMBINED ROOF SQUARE, TRY SQUARE, AND BEVEL SQUARE.

Application filed June 5, 1922. Serial No. 565,926.

To all whom it may concern:

Be it known that I, WESLEY T. YOUNGBLOOD, a citizen of the United States, residing at Port Arthur, in the county of Jefferson and State of Texas, have invented new and useful Improvements in a Combined Roof Square, Try Square, and Bevel Square, of which the following is a specification.

This invention relates to a combined roof square, try square and bevel square, and, briefly described, comprises two squares pivotally connected with the opposite ends of a slotted bar, the squares being graduated to indicate the various cuts required for common rafters, jack rafters, and hip or valley rafters, and for various miter cuts.

One object is to provide for indicating the top and bottom cuts for these rafters by shifting the bar to a specified point on the scale indicating the rise or pitch per foot run which may be required, other series of graduations indicating the length of the rafter per foot run, when the device has been set as indicated, and also the difference in length between successive jack rafters, and the side cuts required.

In the drawings, Figures 1 and 2 are plan views of the device, from opposite sides.

In carrying out my invention, I provide squares 10 and 12 and connect these elements at the points 13 and 14 with the bar 15, the central portion 15′ of which is solid, the remainder being slotted longitudinally, so that the ends of the bar straddle the squares. The pivotal connections are effected with self setting thumb screws 16. The bar is also provided with slots 17, serving the purpose indicated below.

Referring to the square 10, the segmental portion 18 is provided with graduations 19 indicating the rise of a common rafter per foot run. When a given rise is desired, the bar is moved to a position permitting the corresponding designation on this scale to appear through slot 17, that is in the center of the slot. Then the angle between edge 20 and the bar 15 will be the angle for the top cut of the rafter, while the angle between bar 15 and edge 21 will represent the correct bottom cut. The series of arcs 22 are divided by radial lines 23, and when the bar 15 has been set as indicated, one of the radial lines will appear in the adjacent slot 17, and the inner arc which this radial line touches is designated by figures in the series 24 indicating the length of the common rafter per foot run, under the conditions stated. The full length of the rafter may of course be obtained by multiplying the length per foot run by one-half the width of the building.

On the opposite side of this square 10 are graduations showing "polygon miters." The designations 26 give the number of sides of the polygon, and when any index mark in this series appears in the center of the slot 17 of the bar 15, the bar is set for the correct miter cut. Opposite the index mark 6 for instance, there appears an index mark in the series 27 accompanied by the designation—hexagon. In cutting miters for an octagon the graduation or mark 8 would of course be caused to appear in slot 17, and bar 15 would indicate the required cut, or show the angle thereof, and so on for the other polygons specified in the drawings.

Square 12, used for indicating the top and bottom cuts of a hip or valley rafter, has a series of graduations 30 indicating the rise of the common rafter per foot run, and the center of adjacent slot 17 of bar 15 must be brought into registration with a given index mark of scale 30 in order that the edges 31 and 32 of the square may indicate respectively the top and bottom cut for the hip rafter. Radial lines 33 extend to segments 34, and in the series of designations 35 there are figures indicating the length of the rafter per foot run.

The opposite side of square 12 is used for the side cuts of jack rafters. When any figure in the marginal series 36 (giving the rise of a common rafter per foot run) is in the center of adjacent slot 17 of bar 15, the edge 37 is set for the side cut of jack rafters for that rise. The length of the first jack rafter and the difference in length of each additional jack rafter is given in the series 38.

What I claim is—

In a device of the class described, a plate having edges at right angles with each other and having a segmental portion, a bar pivoted near the point of juncture of these edges, the plate carrying a series of graduations permitting the device to be set for a given rise of a rafter per foot run, said bar having a slot for registration with the graduations, and the plate carrying another

series of graduations indicating by marks appearing through said slot, when the bar is set as specified, the length of the rafter per foot run for a given rise per foot run, the last named series of graduations increasing progressively from one edge of the plate toward the center of the segmental portion thereof, and being designated by concentric curves, and by numbers increasing progressively from a point near the pivotal mounting of the bar, outwardly from said point.

In testimony whereof I affix my signature.

WESLEY THEODORE YOUNGBLOOD.