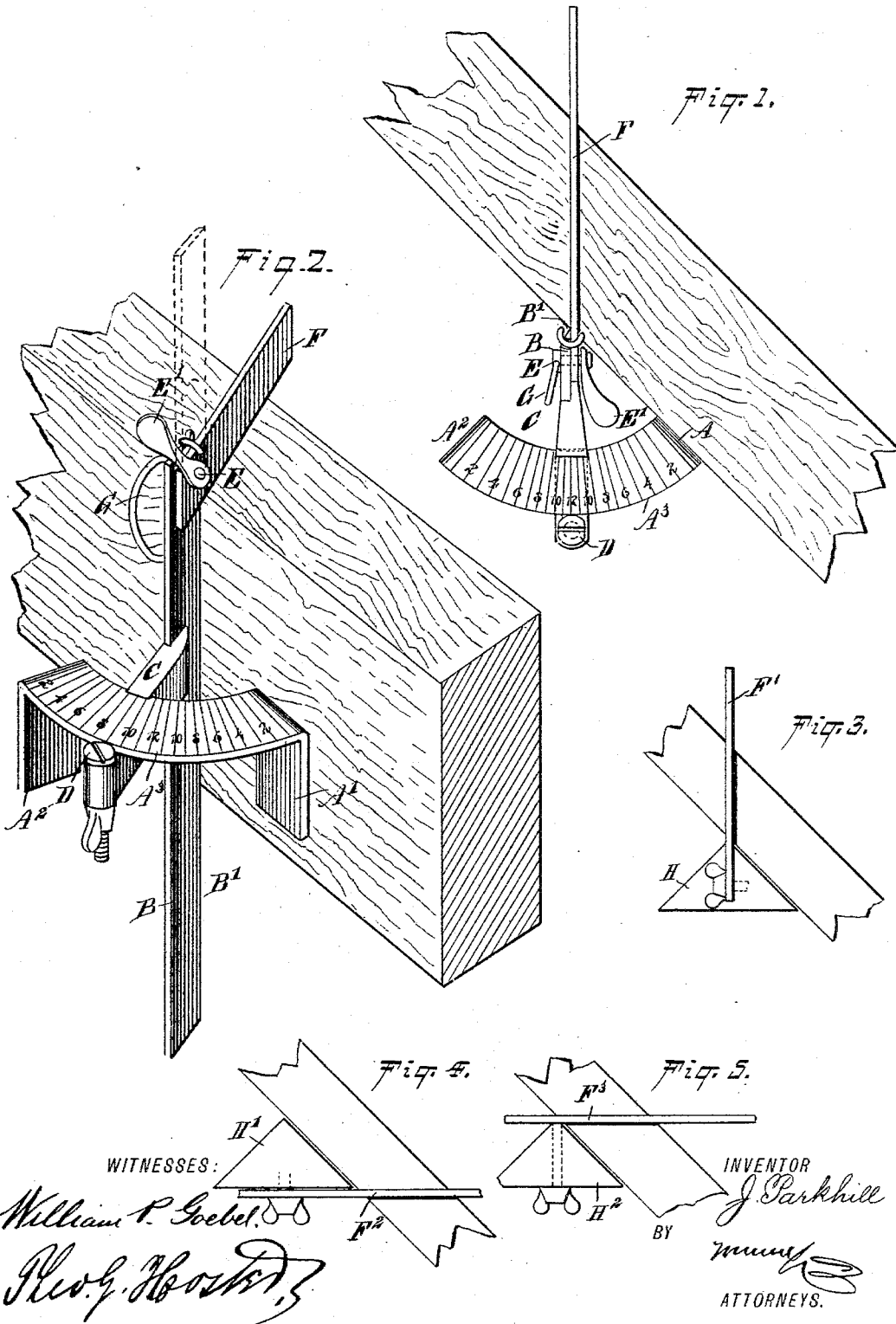


(No Model.)

J. PARKHILL.
ROOF FRAMING TOOL.

No. 584,190.

Patented June 8, 1897.



UNITED STATES PATENT OFFICE.

JOHN PARKHILL, OF ROCHESTER, MINNESOTA.

ROOF-FRAMING TOOL.

SPECIFICATION forming part of Letters Patent No. 584,190, dated June 8, 1897.

Application filed April 11, 1896. Serial No. 587,188. (No model.)

To all whom it may concern:

Be it known that I, JOHN PARKHILL, of Rochester, in the county of Olmsted and State of Minnesota, have invented a new and Improved Roof-Framing Tool, of which the following is a full, clear, and exact description.

The invention relates to roof-framing tool such as shown and described in the Letters Patent of the United States, No. 516,575, granted to me on March 13, 1894.

The object of the present invention is to provide a new and improved roof-framing tool principally designed for automatically indicating and marking the proper side bevel (or miter cut) of a jack-rafter of any pitch.

The invention consists of a member having a straight marking edge in the plane of a bearing, and a finger pivoted thereto about an axis arranged transversely of the marking edge to swing in line with the marking edge and at an angle to the plane of the bearing.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan of the improvement as applied. Fig. 2 is a perspective view of the same; and Figs. 3, 4, and 5 are reduced front elevations of modified forms of the improvement.

The improved roof-framing tool consists of a member with a straight marking edge in the junction of the planes of bearings adjustably fastened thereto, and a finger pivoted to the member to swing in line with the marking edge and at an angle to the plane of either bearing. The bearings are preferably made in the form shown in Figs. 1 and 2, and consist of the opposite ends A' and A^2 of a segmental graduated gage-plate A^3 , which is fastened transversely on the extension C, soldered or otherwise secured to or integral with a plate B, and is adjustable by sliding in a dovetail of the said extension, the segmental bearing-plate A^3 in its sliding movement turning about the marking edge as its axis—that is, the diverging ends or bearings A' and

A^2 of the said segmental plate are always arranged radially in relation to the marking edge B' . The ends or bearings A' and A^2 are disposed at a right angle to each other and may be extended by flanges in radial planes, as shown in Figs. 1 and 2, thus providing a wider bearing-surface. D is a screw for fastening the bearing-body A, formed by the plate A^3 , and the bearings A' A^2 relatively to the extension C.

The gage-plate A^3 has numbered graduations, as shown in Fig. 1, by which to adjust the bearings so that the tool will mark the side bevel on jack-rafters which are not at the same pitch on both sides of the hip-rafter. On a pivot E on the front end of the plate B a finger F is pivoted to swing in line with the marking edge B' and at an angle to the plane of either bearing. By employing a nut E' on the pivot F the finger E may be fastened at any angle to the plate B. For convenience in use the finger F may have a spring, as shown in Figs. 1 and 2, to better hold it in contact with the timber.

In order to mark the miter cut or side bevel on straight or curved jack-rafters which are at the same pitch on both sides of the hip-rafter, I proceed as follows: I fasten the gage-plates A^3 so that the plane in which the finger F swings forms the same angle with the plane of either bearing A' or A^2 , as shown in Fig. 1. The plane in which the finger F swings now crosses gage-plate A^3 in the center of the numeral 12. I then loosen the nut E' , leaving the finger F free to swing, and apply the tool, as shown in Fig. 2, with one bearing against the side of the timber and the marking edge B' on the plumb cut of rafter and the finger F resting across the top edge of the timber. A mark by the edge of the finger F will be the correct side bevel for that pitch of rafter. In the same manner the miter cut or side bevel for any pitch of rafter will be indicated by the finger F when the marking edge B' is placed on the plumb cut.

When the tool is in proper position on the timber, as just described, the nut E' may be screwed up, locking the finger F, when any number of duplicate cuts both plumb cut and side bevel may be marked at one application

of the tool. The side bevel may be marked either right or left hand by using either bearing A¹ or A².

To mark side bevel or jack-rafter which are not at the same pitch on both sides of the hip-rafter, I set the gage-plate A³ and bearings A¹ and A² so that the plane in which the finger F swings forms a greater angle with the plane of one bearing than it does with the plane of the other bearing. Thus the plane in which the finger F swings will now cross the gage-plate A³ at whatever figure on it represents the run which the rise to the foot of the flatter pitch requires on the steeper pitch. I then apply the tool as before, (always with the marking edge B' on the plumb cut of rafter,) and by using one bearing the finger F will indicate the side bevel for jack-rafters on one side of the hip-rafter, and the side bevel for those on the other side of the hip-rafter by using the other bearing. For instance, with a pitch of eight (8) inches rise to the foot (one-third pitch) on one side and a pitch of twelve (12) inches rise to the foot (one-half pitch) on the other side of the hip-rafter eight (8) inches is the rise to the foot of the flatter pitch, and a rise of eight (8) inches on the steeper pitch requires a run of eight (8) inches on steeper pitch, so I set the gage-plate A³ at the figure eight (8) thereon.

By reference to Figs. 3, 4, and 5 it will be seen that the bearing-body A and plate B may be combined in a single block H, H', or H², and on this block is fulcrumed the finger F¹, F², or F³, respectively, arranged to swing in line with the marking edge and at an angle to the planes of the ends of the bearing.

It will be seen that in each of the constructions shown the marking edge is located in the same plane with the end surfaces or bearings of the bearing-body, (plate or block;) furthermore, said end surfaces are arranged at an angle to each other, (preferably at a right angle,) the marking edge coinciding with the line of intersection of the planes of

said end surfaces, and, lastly, the pivot about which the finger is mounted to turn is arranged transversely of the direction of the marking edge as well as of the said end surfaces instead of being parallel to either the marking edge or the said surfaces.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A tool, the same comprising a member having a bearing and a marking edge in the plane of said bearing, and a finger pivoted to said member about an axis arranged transversely of the direction of the marking edge, to swing in line with the marking edge and at angle to the plane of the bearing, substantially as described.

2. A tool, the same comprising a member having a bearing-body provided with converging end surfaces, and a marking edge coinciding with the line of intersection of the planes of said end surfaces, and a finger pivoted to the said member adjacent to the marking edge, substantially as described.

3. A tool, the same comprising a member having a marking edge and a slideway, a curved bearing-plate movable in said slideway the center of curvature being upon said marking edge, means for locking the bearing-plate in the slideway of said member, and a finger pivoted to the said member adjacent to the marking edge, substantially as described.

4. A tool, the same comprising a member having a marking edge, a finger pivoted to said marking edge, and a bearing-body adjustably secured to said member to permit of adjusting the angle formed between the end surface of said bearing-body and the plane in which the pivoted finger swings, substantially as described.

JOHN PARKHILL.

Witnesses:

A. R. COOKE,
GEO. M. DARLING.