RAFTER CUTTING AND POSITIONING JIG

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The present invention relates to certain new and useful improvements in special purpose jigs and has more particular reference to one which is expressly constructed and adapted to facilitate marking and cutting of complementary framework timbers, particularly hip rafters and jack rafters such as are used in constructing the skeleton framework of a roof construction. To be sure, the art to which the invention relates reveals many and varied styles and forms of angle establishing gauges, squares, scribing tools, jigs and the like. Nevertheless, and despite the state of developments in the art, there has long existed a recognized need for a special work layout jig for quickly and correctly locating jack rafters in relation to the ridge pole or so-called hip rafter. It is, therefore, the principal object of the present invention to provide a structurally distinct jig in which manufacturers and users will find their essential needs more satisfactorily met and effectually available.

In carrying out the principles of the instant invention, the instrumentality employed is characterized by three complementary components or units; namely, a special adjustable adapter which may be readily saddled in position on an end portion of a jack rafter, and a pair of duplicate T-squares. The latter are unique in that they are detachably, slidably, and hingedly supported from the adapter, whereby they may be individually set to properly abut surfaces of the hip rafter and then lock to permit desired marker lines to be scribed and end cuts on the jack rafters to be made, whereby to insure the correct angular location and nailing of the jack rafters.

Another object of the invention has to do with the special construction of the adapter which is unique in that it is made up of a pair of substantially L-shaped companion members which are adjustably connected together to permit same to be utilized in connection with jack rafters of varying cross-sectional dimensions.

Other objects and advantages will become more readily apparent from the following description and the accompanying sheet of illustrative drawings.

In the accompanying sheet of drawings, wherein the numerals are employed to designate like parts throughout the views:

Figure 1 is a perspective view of a position marking and rafter cutting jig constructed in accordance with the principles of the present invention;

Figure 2 is an enlarged cross-section taken on the plane of the line 2—2 of Figure 1, looking in the direction of the arrows; and

Figure 3 is a fragmentary perspective view showing a hip rafter, a jack rafter abutting same, and showing the manner in which the jig is applied and used for the end results wanted.

In the drawings in Figure 1, the adapter fixture is denoted, as a unit, by the numeral 4 and the respective individually and collectively usable cut indicating and rafter positioning straight-edge members or T-squares are denoted by the numerals 6 and 8, respectively.

The adapter comprises a pair of substantially L-shaped members each including a long limb and a short limb. The long limb of the L-shaped member 10 is denoted by the numeral 12 and the short limb by the numeral 14. The long limb of the L-shaped member 16 is denoted by the numeral 18 and the short limb by the numeral 20. Formed integral with the interior surface of the long limb 12 are right angularly disposed socket members 22. These are adapted to slidably accommodate the headed end portions 24 of studs 26 secured at 28 to the interior surfaces of the opposed long limbs 18. The head 24 acts as a sort of plunger or piston and operates in the socket member 22 which functions as a cylinder. The inner end portion of the cylinder is provided with a stop flange 30. These adjustable interconnecting or coupling devices serve, obviously, to adequately adjoin the members 10 and 16 in properly organized spaced parallelism. Thus constructed, the adapter is readily saddled over the upper edge portion of the jack rafter A as shown in Figure 3. It puts the gauging and marking squares 6 and 8 in proper relation to the jack rafter and also the ridge pole or hip rafter B in a well-known manner. Each T-square comprises a vertical leg or blade 32 and a horizontal slotted leg or blade 34. The slotted legs or blades are mounted on the adjacent respective short limbs 14 and 20 by way of fixed screw-threaded studs 36, thumb nuts 38 and washers 40.

From the foregoing description and companion drawings, it will be seen that the straight-edge members or blades 32 are disposed in spaced parallelism and are adapted to abut the hip rafter on opposite vertical sides of the jack rafter. They may be used for marking the positions of the jack rafter and also adjusted individually and then locked to enable the carpenter to properly cut the end portions of the jack rafters at the desired angles to permit said jack rafters to assume desired oblique angled or other angular inclining positions in respect to the hip rafter before nailing the jack rafters thereto. The adapter is adjustable to timbers of different thicknesses, as is obvious. It is readily applicable and removable.
and once it is saddled in place, it provides a satisfactory hanger for the individually adjustable T-squares 6 and 8. The latter are readily applicable and removable, slidable and may be pivoted or hinged to assume necessary gauging and marking positions. Once the instrument is adjusted and set for a given job, it may be repeatedly employed for corresponding angling and cutting of other jack rafters which are to be identically installed. So far as known, the provision of duplicate individually and collectively adjustable T-squares and any adapter means for supporting same in marking and cutting positions on a jack rafter is believed to be novel.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

Minor changes in shape, size, materials and arrangement of parts may be resorted to in actual practice without departing from the spirit and scope of the invention, as claimed.

Having described the invention, what is claimed as new is:

1. A work layout jig for correctly locating jack rafters in relation to a hip rafter comprising an adapter removably applicable to a jack rafter, said adapter embodying a pair of L-shaped members and means adjustably interconnecting said members in spaced parallelism, and a pair of T-squares slidably and pivotally mounted on the short limbs of said L-shaped members.

2. A work layout jig for correctly locating jack rafters in relation to a hip rafter comprising an adapter removably applicable to a jack rafter, said adapter embodying a pair of L-shaped members having long and short limbs, a pair of socket members secured to one of said long limbs and extending at right angles from the latter, and a pair of headed studs secured to the remaining long limb, extending at right angles from the latter and slideable in the respective socket members, a pair of T-squares, each of the latter having a slotted leg, and bolt and nut means detachably, slidably and pivotally connecting the slotted legs to their respective short limbs.

EVO J. TARPERI.