July 19, 1955 J. L. GOTTLIEB 2,713,203

HOUSE FRAMING DEVICE

Filed Aug. 14, 1952 4 Sheets-Sheet 1

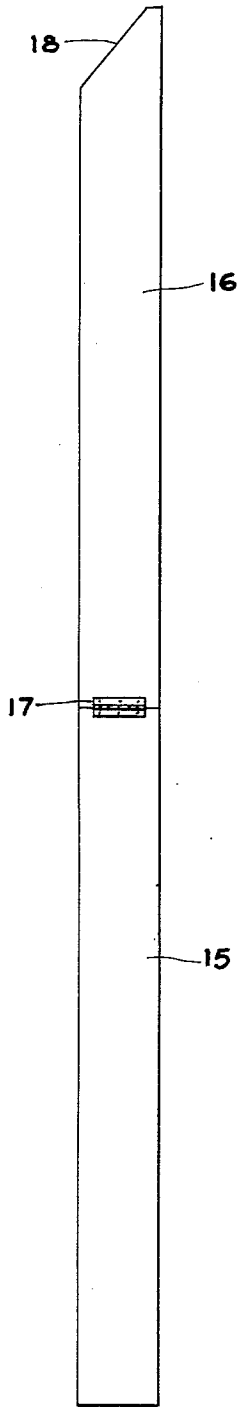


FIG. 3

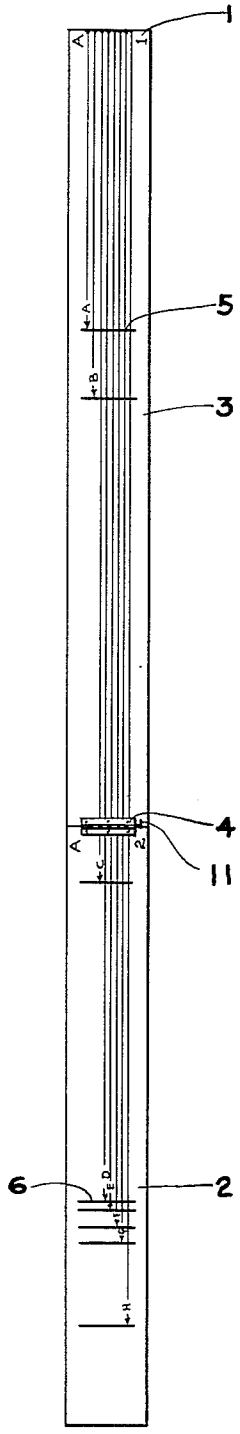


FIG. 1

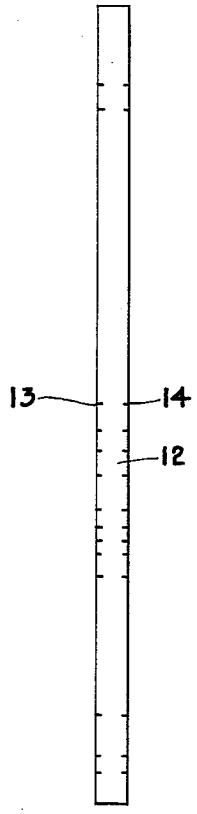


FIG. 2

INVENTOR,
JACK L. GOTTLIEB
BY Lloyd W. Batch
attorney.

July 19, 1955 J. L. GOTTLIEB 2,713,203

HOUSE FRAMING DEVICE

Filed Aug. 14, 1952 4 Sheets-Sheet 2

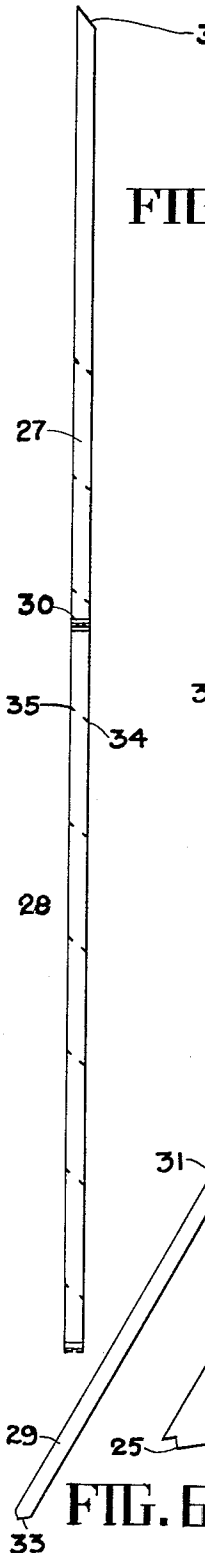


FIG. 8

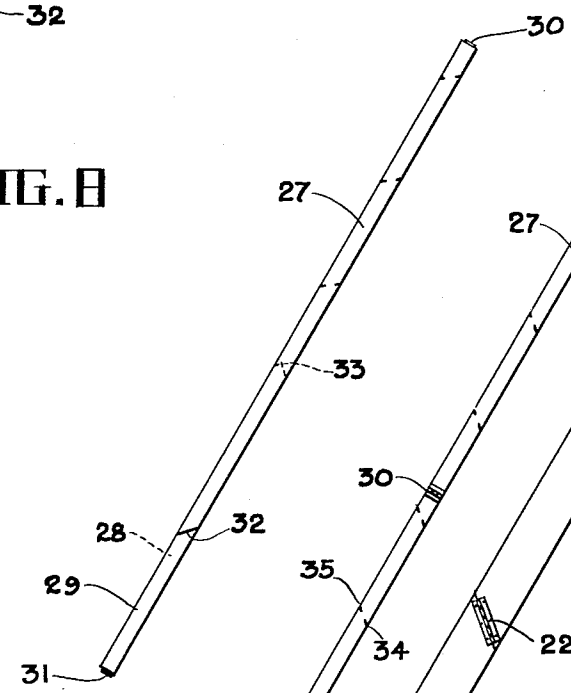


FIG. 7

FIG. 4

FIG. 5

FIG. 6

INVENTOR,
JACK L. GOTTLIEB
BY Lloyd W. Patch
attorney.

July 19, 1955 J. L. GOTTLIEB 2,713,203

HOUSE FRAMING DEVICE

Filed Aug. 14, 1952 4 Sheets-Sheet 3

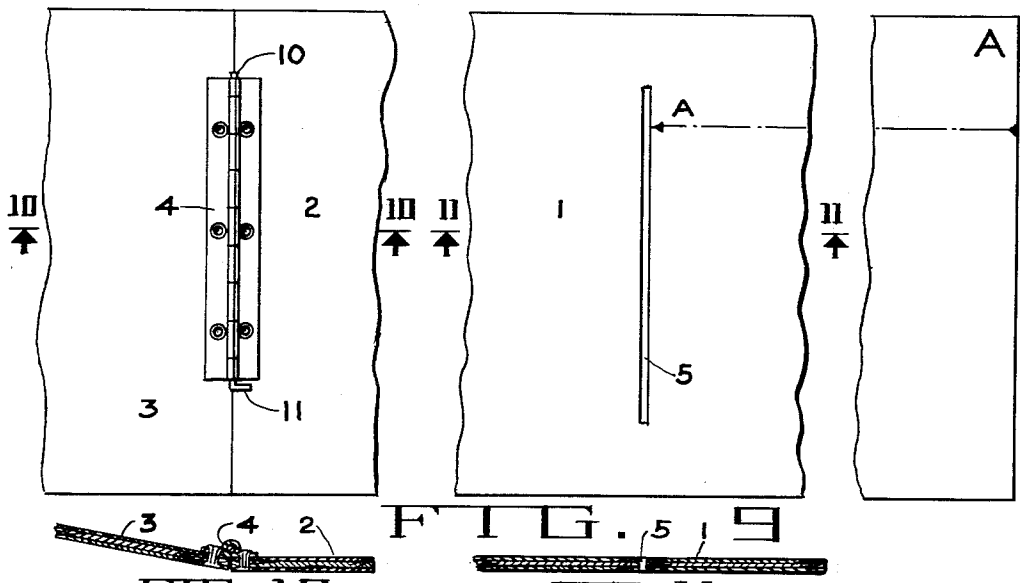


FIG. 9

FIG. 10

FIG. 11

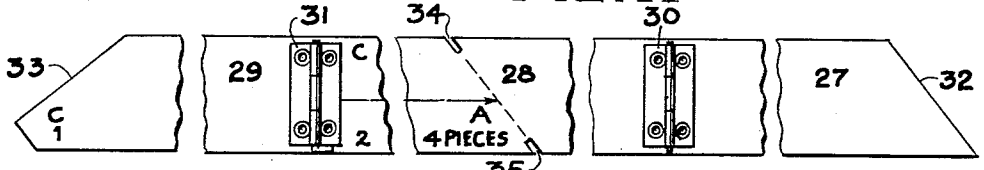


FIG. 12

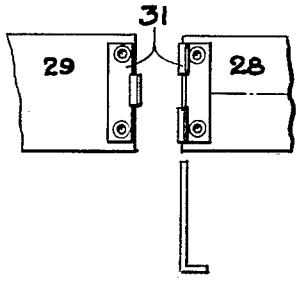


FIG. 13

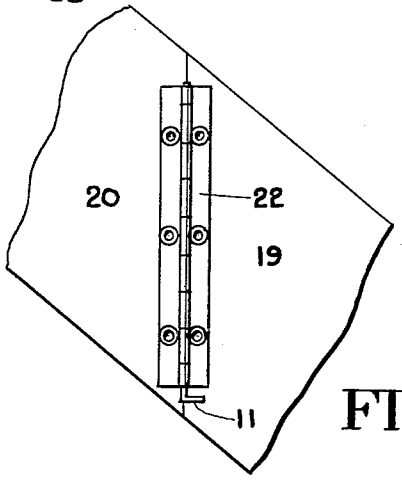


FIG. 14

INVENTOR,
JACK L. GOTTLIEB
BY Lloyd W. Batch
attorney.

July 19, 1955 J. L. GOTTLIEB 2,713,203

HOUSE FRAMING DEVICE

Filed Aug. 14, 1952 4 Sheets-Sheet 4

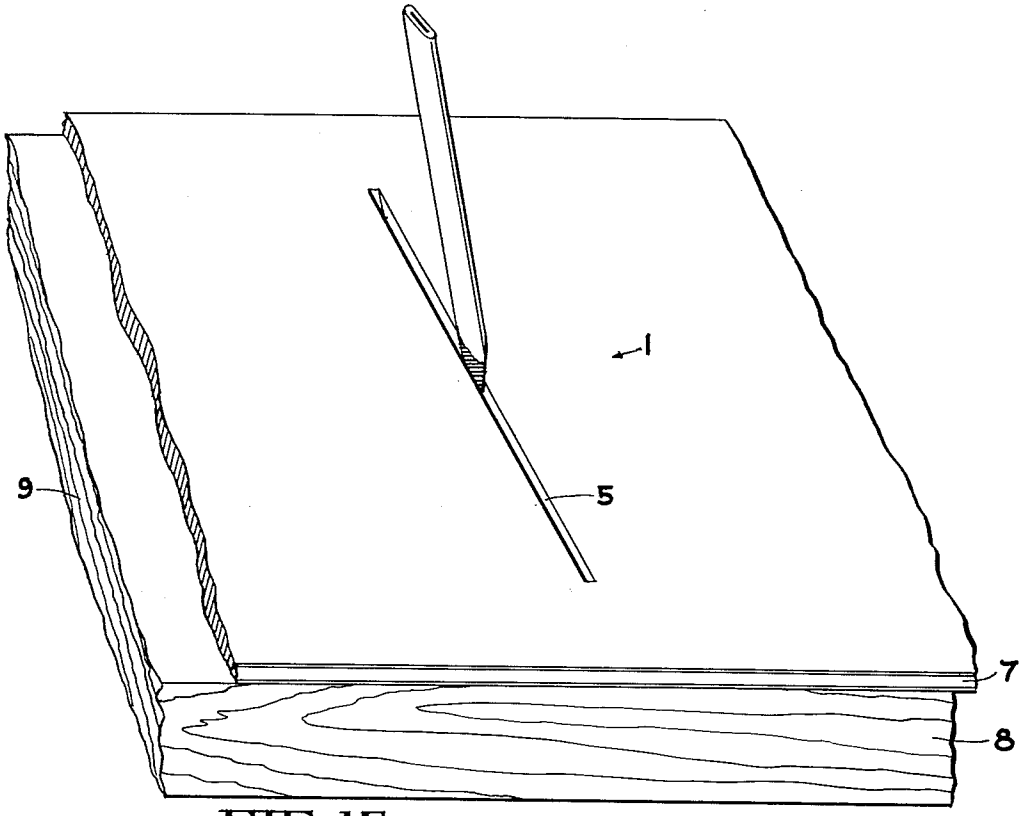


FIG. 15

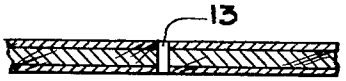


FIG. 16

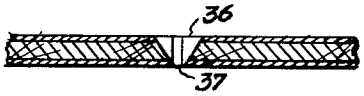


FIG. 18

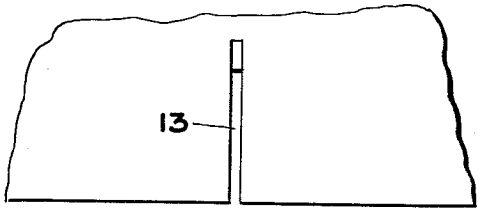


FIG. 17

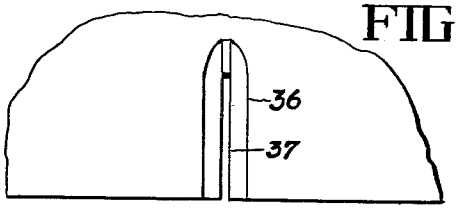


FIG. 19

INVENTOR,
JACK L. GOTTLIEB
BY Lloyd W. Batch
attorney.

United States Patent Office 2,713,203 Patented July 19, 1955

2,713,203

HOUSE FRAMING DEVICE

Jack L. Gottlieb, Baltimore, Md.

Application August 14, 1952, Serial No. 304,299

3 Claims. (Cl. 33—1)

My invention relates to improvements in house framing devices and particularly to devices of this character intended and adapted for use by individual house builders and others who may not be particularly skilled in building and in the use of a rule and the transposition of measurements; and, which can be used expeditiously and with accuracy to lay off floor joists and plates and headers and interior and exterior wall studding and plates and framing and ceiling joists and roof rafters and jack rafters and roof gable studding members and in fact all framing that may be required in erecting a frame house or other frame building.

An object of this invention is to provide a device of this character which can be used by an unskilled worker or person to accomplish and assure exact lengths or dimensions of framing members as desired, and which will permit marking of all lengths and angles of cuts without the use of a rule or other scale and without requirement for a carpenter square or other similar device.

Still another purpose of my invention is to provide for extreme accuracy in the laying off of the length of each framing member and to provide for marking each framing member as laid off so that the exact angle of cut will be indicated and the line of cut can be readily scribed with a pencil and any straight edged member.

Another object of my invention is to provide devices dimensioned to the width and maximum length of particular framing members and then constructed and adapted to be employed in marking off all similarly dimensioned frame members required to be of lesser length.

A further object is to provide full and actual size pattern members for house framing which can be made in several sections hingedly or otherwise connected together to be readily foldable for ease in packing and shipping and transportation and handling and which at the same time can be extended and will retain substantially the same rigidity as full and continuous length members so that these devices can be expeditiously and accurately used to accomplish desired framing markings and to assure accuracy.

With the above and other objects in view, some of which will be apparent to those skilled in the art, and others of which are inherent in the construction and use of the device, my invention includes certain novel features of construction and combinations and arrangement of parts which will be hereinafter set forth in connection with the drawings and then particularly pointed out in the claims.

In the drawings:

Figure 1 is a view in elevation showing a pattern member embodying my invention.

Fig. 2 is a view in elevation disclosing another embodiment.

Fig. 3 is a view in elevation illustrating embodiment of the invention as a ceiling joist pattern.

Fig. 4 is a view in elevation disclosing embodiment in a roof rafter pattern.

Fig. 5 is a view in side elevation showing a part of the pattern illustrated in Fig. 4 capable of embodiment as a jack rafter pattern.

Fig. 6 illustrates the device embodied in a roof gable rafter pattern.

Fig. 7 illustrates the structure of Fig. 6 as this will appear when folded.

Fig. 8 shows the embodiment of Fig. 6 as this is employed in cutting roof gable end studding.

Fig. 9 is a fragmentary broken view enlarged to better show the detailed construction of the disclosure in Figure 1.

Fig. 10 is a fragmentary sectional view substantially on line **10—10** of Fig. 9.

Fig. 11 is a fragmentary sectional view substantially on line **11—11** of Fig. 9.

Fig. 12 is an enlarged view with parts broken away to better illustrate the structure of Fig. 6.

Fig. 13 is a separated view with folded hinge parts shown disconnected.

Fig. 14 is an enlarged view to better show the hinge and connecting structure as illustrated in Fig. 4.

Fig. 15 is a fragmentary perspective view to better disclose the manner of applying a pattern to a framing member and marking the same.

Fig. 16 is a fragmentary view in edge elevation showing one construction of marking slot.

Fig. 17 is a fragmentary view of a pattern member illustrating the marking slot as disclosed in Fig. 16.

Fig. 18 is a view similar to Fig. 16 illustrating a modified construction of marking slot.

Fig. 19 is a fragmentary perspective view illustrating embodiment of the showing of Fig. 18.

As stated, my invention contemplates house framing devices for use by ordinary persons not particularly skilled in laying out framing members or transferring measurements to house framing material, and which can be employed without the necessity or requirement for specialized knowledge or a rule or scale or square or similar device to give desired length and angles of cuts on house framing members such as floor joists, plates, headers, interior and exterior wall studding and plates and framings, and ceiling joists and roof rafters and jack rafters and roof gable studding members and in fact substantially all framing members that may be required in erection of a frame house or other building. While all lengths and angles of cut might be indicated on a single pattern or template, it has been found advantageous to provide several patterns or templates which can be employed in framing different portions of the house or building frame, and yet the same general construction and manner of use is embodied in each of the patterns or templates or device.

The pattern or length indicating and marking guide members are conveniently made of plywood or pressed board or other suitable material which can be readily formed and worked and which will have sufficient rigidity and durability to last for use while an individual is cutting and erecting a particular framing portion. It is intended that each pattern member or portion be made of an overall length sufficient to cover the greatest length of framing member to be marked therewith, and it is preferable that the pattern member be made of a width to substantially coincide with the standard dimensional width of framing material to which the length and cutting markings are to be transferred.

Thus, the measuring strip **1** will have an overall length corresponding to the greatest length of floor joist that may be required for the particular building. In the present instance I have shown this measuring strip **1** as made up of two portions **2** and **3** connected together by a connecting member **4** somewhat after the manner of a piano hinge. With this arrangement, the

measuring strip 1, which would probably not have a maximum length exceeding 14 feet or 16 feet, to thus take advantage of standard lengths of material, can be folded so that the two portions 2 and 3 can be packed and shipped and carried in a convenient length for handling. The portions 2 and 3 will be of a width to substantially conform with the width of 8 inch and 10 inch finished framing joists, and at least one edge of the composite measuring strip 1 is made as a straight edge which can be applied to follow one side edge of the framing member. The measuring strip 1 can be placed on the framing member and if one end be square the measurement can be taken from this and the maximum length can be marked across at the other end of the measuring strip. As both ends of the measuring strip 1 are made square with the straight edge of the measuring strip 1, even the most unskilled person is assured of applying markings on the framing member at the proper longitudinal dimension and in the right transverse angle. If desired, the user can apply or make pencil marks on the framing member at the side edges of the end of the measuring strip 1 and can then use any straight edge member to draw a straight line across the framing member as a guide for the saw cut at an angle as given by the measuring strip.

The measuring strip 1 may be used to give markings of length and angle of cut for main floor joists, and then to give lengths and angle of cut for headers and other members and shorter floor joists which may be required in framing in around a stairway or chimney or other opening, and such measurements and markings are readily accomplished by providing slot-like openings 5 and 6 transversely through the middle structure of the portions 2 and 3 at desired distances from the end of the measuring strip 1, designated as a base or starting point for measurements. As perhaps best illustrated in Fig. 9, these slot-like openings 5 and 6 can be formed in the middle area only of the measuring strip and the edge portions can be left uncut so that the measuring strip will retain sufficient rigidity for handling and use.

With this arrangement the base end of the measuring strip 1 will be placed to coincide with one end of a framing member, and then the user will select an indicated slot-like opening 5 and will cut various framing members to the particular length and for the particular purpose desired. It will be seen that by using a pencil after the manner indicated in Fig. 15, a mark can be made through the slot-like openings 5 and the framing member can thus be marked so that when the measuring strip is removed a pencil can be drawn along any straight edge to complete the transverse marking on the framing member and thus give a continuous and accurate saw cutting line.

As stated, when the straight edge 7 of the measuring strip 1 is applied to coincide with an edge 8 of a framing member 9, the pencil mark applied through the slot-like opening 5 will appear directly upon a side face of the framing member 8 and will give a guide so that a line of cut can be marked entirely across the face of the framing member without necessity of using a square or miter or other special instrumentality. As stated, the slot-like openings 5 and 6 can be formed through the portions 2 and 3 of the measuring strip 1 at any desired distances from the base measuring end of this strip, and thus the slot-like openings 5 and 6 will be disposed to be used in marking different lengths of material of the particular stock dimension. The length to each slot-like opening 5 and 6 can be indicated or designated in any desired manner, as for example by the use of letters of the alphabet or figures or any other key indicia, and instructions can then readily be given or written to indicate to the user how many pieces of framing material shall be marked and cut to the length of each slot-like opening. Drawings or other illustrations may be employed to show the user where each piece and length of framing should be applied in the erection of the frame, and thus with the use of my device it is possible to supply instructions and guiding information which will permit cutting and installation of framing members to accomplish erection of a frame structure that will conform to building laws and other requirements, and which will insure a square and plumb and workmanlike job even though the user be without special skills or knowledge of building.

The hinge 4 is made with the two leaves thereof of sufficient length to extend a substantial distance transversely of the portions 2 and 3, and is of the loose butt type, the pin or butt 10 being preferably provided at one end with an offset handle portion 11, so that the pin or butt can be removed to detach the one hinge leaf from the other.

In Fig. 2 I have illustrated a pattern member or measuring strip particularly well suited to marking side wall and interior wall and bearing partition members, such as well studding, door and window headers and framing, and the like. In this instance, the joists and framing members to be measured and marked will be for the most part stock framing material of 2" x 4", in dressed or finished size, and it has been found convenient to make the measuring strip 12 of a maximum length that may be required for the longest framing member to be used in the wall structure. This measuring strip 12 can be made in two or more portions to allow folding, and can follow somewhat the structure as described in connection with Figure 1. However, since it is desirable to make the measuring strip 12 of a width to substantially fit upon the dressed 4" face of the framing members, it is not entirely practicable to provide transverse slots corresponding to slots 5 and 6. Therefore, at different lengths required along the measuring strip 12, from the base measuring end, I provide slot-like side openings or notches 13 and 14 on opposite edges. With this embodiment, the measuring strip 12 is laid flatwise upon the side of a framing member and is lined up with its edges following the edges of the framing member, and the user can then mark with a pencil upon the framing member using the slot-like side openings or notches 13 and 14 as guides. When the measuring strip 12 is removed the user can connect the two side marks by a pencil line drawn against any straight edge member and this forms a cut or sawing mark which follows the exact angle desired. I have found that the measuring strip 12 can be conveniently made and used in a length corresponding to stock lengths of material, such as 8' studding and that the slot-like side openings or notches 13 and 14 can be employed to allow accurate marking of the length of various framing members required for window and door headers and other wall framing members.

In Fig. 3 an embodiment of the invention suitable for measuring and cutting ceiling joists is illustrated, and as here disclosed the portions 15 and 16 are foldably connected together by a hinge 17 somewhat after the manner of the disclosure in Figure 1. This pattern will be made to give a measuring strip of the full length of roof rafters and will be of a width to substantially correspond with the width of 6" or 8" or 10" dressed or finished framing members such as will be used for ceiling joists. It is preferable that one end be cut away or mitered, as at 18, to provide a lower edge to rest upon a side wall plate, and yet give clearance for roof pitch.

In Fig. 4 I illustrate a measuring strip suitable for use as a roof rafter pattern, and in this instance the measuring strip is made up of three portions 19 and 20 and 21. The end portions are connected with the middle portion 20 by hinges 22 and 23 of the loose butt type, so that the parts can be assembled together as a substantially continuous measuring strip and can be disconnected or separated for more convenient handling and transportation. As shown, the ends of the middle portion 20 are cut

across at an angle to substantially follow the pitch of a roof of which the rafters are framed, and the portions **19** and **21** have a corresponding angle at their connected ends, the hinges **22** and **23** being thus disposed substantially diagonally with respect to the edges of the complete measuring strip. At its upper end, the portion **19** is cut across or mitered as at **24**, to give a bevel that will fit accurately against a ridge board when a roof rafter is cut to this pattern and is fitted in place, while at the outer end of the portion **21** the measuring strip has a notched formation at **25** to fit upon a wall plate of the side wall framing. The portion **20** is notched as at **26**, to fit a plate or bracing provided for the roof rafters. With this structure, the roof rafters can be quickly and accurately marked on framing members, without necessity of measuring or figuring or calculating angles or cuts, or placement of notching and the like, and full length roof rafters can be cut in the number required for the roof.

The portion **20** can be removed and separated from the assembly, as illustrated in Fig. 5, and can then be used as a pattern to accurately mark jack rafters to be used in the roof framing.

Obviously, where a scuttle or stairway opening is to be cut into the ceiling joist, the strip disclosed in Fig. 3 can be provided with transverse slotted openings corresponding to the slot-like openings **5** and **6** in the showing in Figure 1, or with side slot-like openings or notches as indicated in Fig. 2, and various desired lengths of framing for stairway openings and dormers and chimney framing and other features can be accomplished.

With the embodiment illustrated in Figs. 6 and 7 and 8, the measuring strip for roof gable rafters is made up in three sections or portions **27** and **28** and **29**, preferably hingedly connected together as at **30** and **31**. Since the roof gable rafter will ordinarily be of 2" x 4" framing laid flatwise, the pattern is marked on the narrow edge of a framing member, and the portions **27** and **28** and **29** are made of a width to substantially coincide with the narrow dimension of the framing member. One end is beveled, as at **32**, to fit the ridge board and the other end is beveled, as at **33**, to fit the upper plate of a side wall. This pattern can be conveniently used to mark off the length of gable end studding, and with this in mind, the portion **29** is removed so that the adjacent end or portion **28** is available as a base measuring end. Then, the portion **28** and the portion **27** have slot-like side openings or notches **34** and **35** at predetermined locations along their side edges. These slot-like side openings or notches are disposed at an angle obliquely across the measuring strip substantially corresponding to the angle required on the upper end of the gable end studding, and by use of these slot-like openings or notches a framing member can be marked and then with the measuring strip removed a pencil can be drawn along a straight edge between the edge markings of the framing member and the angle of cut and the length of each gable end stud can be accurately marked for cutting. As shown in Fig. 7, this gable rafter pattern can be readily folded to short length for convenient handling and transportation.

The slot-like openings or notches **5**, **6**, **12**, **13**, **34**, and **35** can be conveniently formed with a saw or other tool, and as illustrated in Figs. 15, 16 and 17 these slot-like openings or notches are substantially saw-cut with the sides extending parallel. However, where the plywood or pressed board or other stock of the measuring strip is made thicker, it may be found desirable to taper these slot-like openings somewhat after the manner illustrated in Figs. 18 and 19, where the slot-like opening is widened out at its upper extremity at **36** and then is made narrower on the lower side of the measuring strip, as at **37** so that a pencil can be readily inserted and the lead of the pencil will be presented through the lower narrower portion of the slot-like opening at **37** while the wider portion at **36** will accommodate thicker portions of the marking lead of pencil or marking crayon body.

This tapered slot-like opening can be readily cut or formed by the use of a revolving tool somewhat approaching a slightly tapered saw blade or shaper head, and it will be appreciated that the slot-like openings can be made wider or narrower as the use and the thickness of the measuring strip material may require.

With my invention as above set forth, a party without special skills can work from plain or detail drawings having framing members indicated thereon and can do a workmanlike job without necessity of figuring or measuring or calculating lengths of material and angles of cuts, and drawings and instructions can be readily supplied that will permit an amateur to cut and erect a building framing structure that will be accurate in measurements and will be square and plumb when the framing members are set in place. My house framing device can be supplied by lumber dealers and others along with house plans, together with a bill of materials for each part of the frame, and the individual can purchase materials for floor framing and can cut and place these, and can then continue on by purchasing wall framing material and cutting and erecting this, and then on in similar manner with ceiling joists and with roof structure and gable end framing. In this way, a novice can buy only such material as may be necessary for each operation, and can be certain that the material can be cut to accurate measurements and can be erected or placed in the desired manner. Thus, an individual can have delivered only such material as may be immediately required and will be assured that in handling the different framing members the particular dimensioned material will supply his needs. In this way, there is no excess material accumulated on the job to require careful handling and stacking against possible warping or other deterioration or protection against possible theft or loss by fire.

From the foregoing it will be seen that I have provided a house framing device which can be manufactured and sold at low cost and which will prove most efficient and satisfactory in use.

While I have herein shown and described only certain specific embodiments of my invention and have suggested only certain possible modifications, it will be appreciated that many changes and variations can be made in the form and construction and in the material and in the manner of use, without departing from the spirit and scope of my invention.

I claim:

1. A house framing device for indicating and marking lines of cut on dimensioned framing members to be cut for use and placement in a building frame, comprising an elongated flat template of substantially the width of the framing member to be cut, said template having opposed straight edges to be aligned along opposed edges of said framing member when said template is laid along said framing member, said template having a plurality of pairs of opposed slots in said opposed straight edges, each said slot extending obliquely transversely of said template and opening outwardly through its associated said edge and terminating inwardly short of the middle portion of said template, each slot of a said pair of slots being aligned with the other of said pair of slots so that oblique lines of cut on said framing members may be rapidly and accurately indicated and marked by laying said template along a said framing member in alignment therewith and applying markings to the edges of said framing member through each of an aligned pair of said slots to indicate the extremities of a said oblique line of cut, one end of said template being obliquely beveled parallel to said pairs of slots and the other end of said template being obliquely beveled at an angle opposite in inclination to said pairs of slots.

2. A house framing device for indicating and marking lines of cut on dimensioned framing members to be cut for use and placement in a building frame, comprising

an elongated flat template of substantially the width of the framing member to be cut, said template having opposed straight edges to be aligned along opposed edges of said framing member when said template is laid along said framing member, said template having a plurality of pairs of opposed slots in said opposed straight edges, each said slot extending obliquely transversely of said template and opening outwardly through its associated said edge and terminating inwardly short of the middle portion of said template, each slot of a said pair of slots being aligned with the other of said pairs of slots so that oblique lines of cut on said framing members may be rapidly and accurately indicated and marked by laying said template along a said framing member in alignment therewith and applying markings to the edges of said framing member through each of an aligned pair of said slots to indicate the extremities of a said oblique line of cut, one end of said template being obliquely beveled parallel to said pairs of slots.

3. A house framing device for indicating and marking lines of cut on dimensioned framing members to be cut for use and placement in a building frame, comprising an elongated flat template of substantially the width of the framing member to be cut, said template having opposed straight edges to be aligned along opposed edges of said framing member when said template is laid along

said framing member, said template having a plurality of pairs of opposed slots in said opposed straight edges, each said slot extending obliquely transversely of said template and opening outwardly through its associated said edge and terminating inwardly short of the middle portion of said template, each slot of a said pair of slots being aligned with the other of said pair of slots so that oblique lines of cut on said framing members may be rapidly and accurately indicated and marked by laying said template along a said framing member in alignment therewith and applying markings to the edges of said framing member through each of an aligned pair of said slots to indicate the extremities of a said oblique line of cut, one end of said template being obliquely beveled at an angle opposite in inclination to said pairs of slots.

References Cited in the file of this patent

UNITED STATES PATENTS

776,426	Robinson	Nov. 29, 1904
861,799	Briel	July 30, 1907
1,050,969	McLeod	Jan. 21, 1913
1,560,417	Dreschler	Nov. 3, 1925
2,141,901	Burleigh	Dec. 27, 1938
2,255,808	Porter	Sept. 16, 1941