Nov. 19, 1929. E. FLAGG 1,736,709

GAUGE FOR APPLYING HINGES

Filed April 23, 1929

Fig. 1.

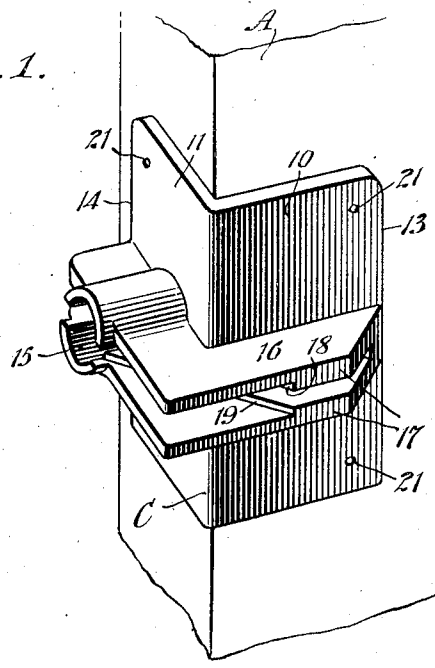


Fig. 2.

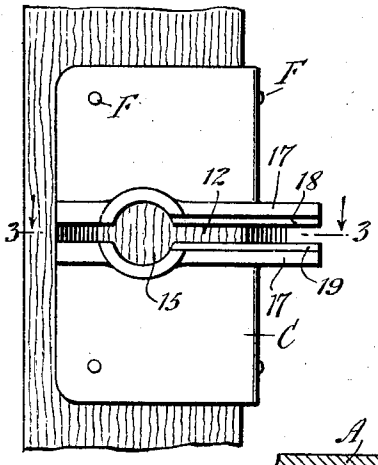


Fig. 3.

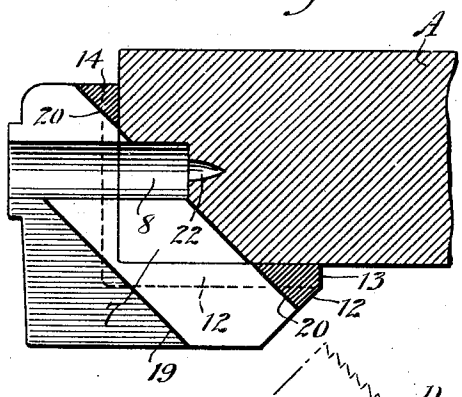
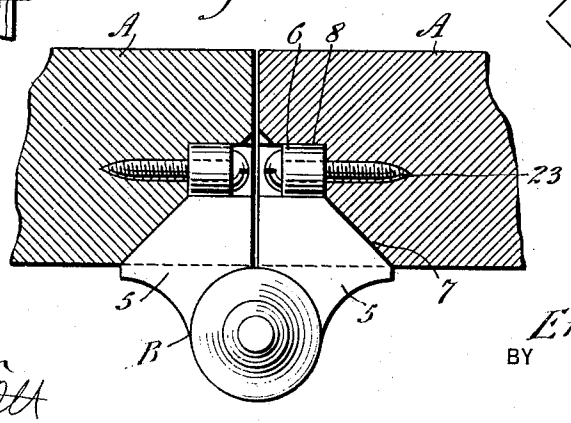
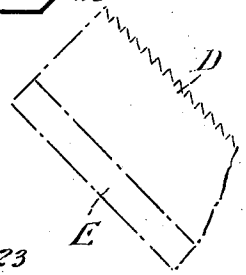


Fig. 4.





WITNESSES

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UNITED STATES PATENT OFFICE

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GAUGE FOR APPLYING HINGES

Application filed April 23, 1929. Serial No. 357,474.

This invention relates to gauges, and refers to a gauge which is particularly designed to facilitate the application of hinges to the members to be hingedly connected, the same being especially provided for applying hinges of the types set forth in my prior patents No. 1,479,705, granted January 1, 1924, and No. 1,612,403, granted December 28, 1926.

In applying hinges of the type above referred to, it is necessary to cut an angular groove or slit transversely of the corners of the members to be connected in order to receive the hinge plates or leaves of the hinge and, furthermore, to provide a circular hole or bore in one edge of each member, which bore intersects the groove or slit for the purpose of accommodating the eye or cylindrical portion of the hinge leaf, which eye or cylindrical portion is adapted to receive the screws or other similar fastening elements.

The present invention, therefore, aims to provide a simple, inexpensive and practical gauge, by virtue of which the time and labor incident to the installation of the hinges, are reduced to a minimum, while insuring accuracy in their placing.

With the above recited and other objects in view, reference is had to the following description and accompanying drawings, in which there is exhibited one example or embodiment of the invention, while the claims define the actual scope of the same.

In the drawings:

Figure 1 is a perspective view illustrating the gauge in applied position.

Figure 2 is an end view of the gauge.

Figure 3 is a horizontal sectional view thereof taken approximately on the line indicated at 3—3 in Figure 2.

Figure 4 is a sectional plan view illustrating the type of hinge which is applied by means of the gauge.

Referring to the drawings by characters of reference, A, A represent a pair of members to be hingedly connected, and B the hinge for connecting the same, which hinge includes a pair of leaves 5, 5. The leaves 5 are disposed in a plane at a right angle to the axis of the hinge, and hence, in a plane coincident with the plane of movement of the member or members A. In this type of hinge, it is, therefore, obvious that the leaves or plates 5 are inserted in the grooves or slits transversely of the corners of the members A. This type of hinge also is provided with a tubular portion or eye 6, the axis of which is also disposed in a plane coincident with the plane of the leaf or hinge plate. In applying hinges of this type, it is, therefore, necessary to cut an angular groove or slit 7 transversely of the corner of each member A and to provide a circular hole or bore 8 in one edge of each member A, which bore intersects the groove or slit to accommodate the tubular portion or eye 6 of the hinge.

The present invention, therefore, comprehends a gauge designated generally by the reference character C, which gauge consists of a base including connected, preferably integral, right angularly related plates or walls 10 and 11 defining at the inner side of said base a re-entrant angle adapted to fit over the corner of a door, door frame or other members A which are to be hingedly connected. The base plates or walls 10 and 11 are provided with a transverse guide slot 12 extending through their juncture and terminating at a point spaced from the opposite free edges 13 and 14 thereof. The slot 12 is of a width to snugly accomodate the blade D of a saw which is preferably formed at the opposite edge from the teeth with a thickened portion or rib E. One of the plates or walls, specifically illustrated as the wall 11 is formed with an opening 15 which intersects the guide slot 12 and the opening 15 serves as a guide for a drill bit or other boring tool, to properly guide the same in the formation of the hole or bore 8 which is to receive the tubular portion or eye 6 of the hinge leaf 5. In order to afford a saw and drill bit guide of adequate thickness without unnecessarily adding to the weight or bulk of the device, a pair of angular flanges or ribs 16 and 17 project outwardly from the plates or walls 10 and 11 with the confronting faces of said flanges or ribs disposed flush with the opposite walls of the guide slot. Preferably, the flanges or ribs 16 and 17 are formed integral with the walls or plates and the opening 15 extends through

said flanges or ribs which may be slightly thickened at the point where the opening occurs. In order to prevent possible contact of the teeth of the saw with the end walls of the slot 12 and to limit the depth of the cut in forming the grooves or slits 7, the flanges or ribs 16 and 17 are provided with internal shoulders 18 and 19 by rabbeting, or cutting away the inner portions thereof. In practice, the thickened portion or rib E of the saw will contact with or engage the shoulders 18 and 19 for this purpose, it being understood that the width of the saw blade D from the inner edge of the thickened portion or rib E to the extremities of the teeth is slightly less than the distance between the shoulders 18 and 19 and the ends 20 of the groove 12.

In use and operation, the gauge is applied to the corner of the member A to be hinged and small brads or tacks F are driven through the apertures 21 which are formed in the plates or walls 10 and 11, to hold the gauge in proper position. The mechanic then inserts the saw blade D between the flanges or ribs 16 and 17 and forms the angularly disposed slit or groove 7 by reciprocating the saw, employing the confronting faces of the flanges or ribs 16 and 17 as a guide. When the thickened portion or rib E engages the shoulders 18 and 19, the mechanic is aware that the slot or groove 7 has been properly produced. The boring tool is then introduced through the opening 15 which serves as a guide and the bore or hole 8 is then properly formed. The boring tool may also be provided at its free end in the usual manner with a reduced boring terminal to form a reduced concentric opening 22 to facilitate the starting of the screw or other fastening device 23 which is employed for the purpose of attaching the hinge leaf 5 in place. After the member A has thus been prepared, the gauge is removed, the hinge plate 5 is emplaced and the fastening element or screw 23 is driven home.

From the foregoing, it will, therefore, be seen that a gauge has been devised by virtue of which hinges of the type set forth or their equivalent, may be rapidly applied to the members to be hinged with accuracy and precision and without requiring the mechanic to resort to unnecessary measurements while eliminating the time required therefor.

What is claimed is:

1. In a gauge for applying hinges, a base including connected right angularly related walls having a common transverse saw guide slot extending therethrough and a drill guide opening extending through one of said walls in intersecting relation to the guide slot.

2. In a gauge for applying hinges, a base including connected right angularly related walls having a common transverse saw guide slot extending therethrough, a drill guide opening extending through one of said walls in intersecting relation to the guide slot and a pair of angular flanges projecting outwardly from the walls with the confronting faces of said flanges disposed flush with the opposite walls of the guide slot.

Signed at 101 Park Ave., New York, in the county of New York and State of New York, this 22nd day of April, 1929.

ERNEST FLAGG.