

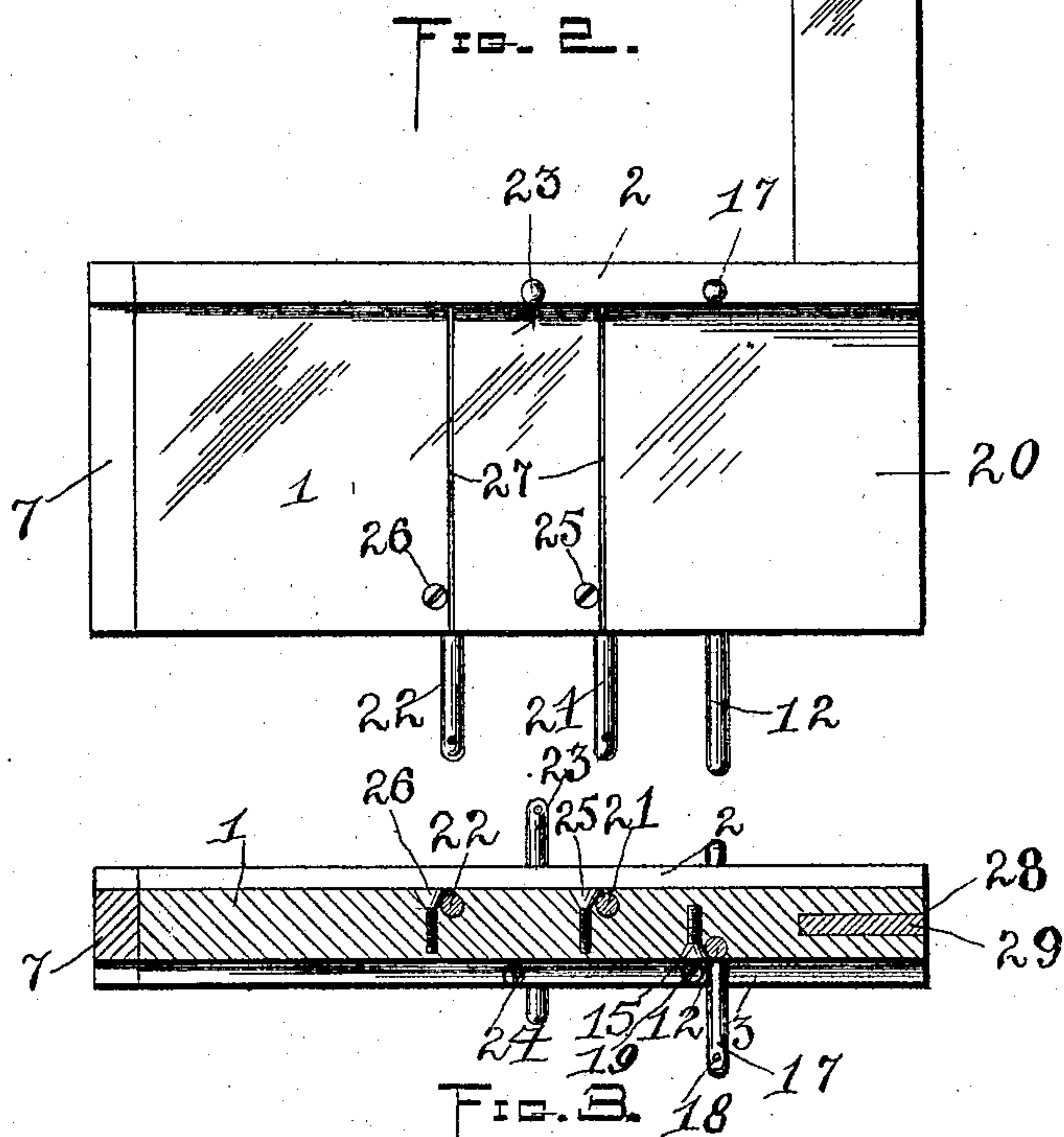
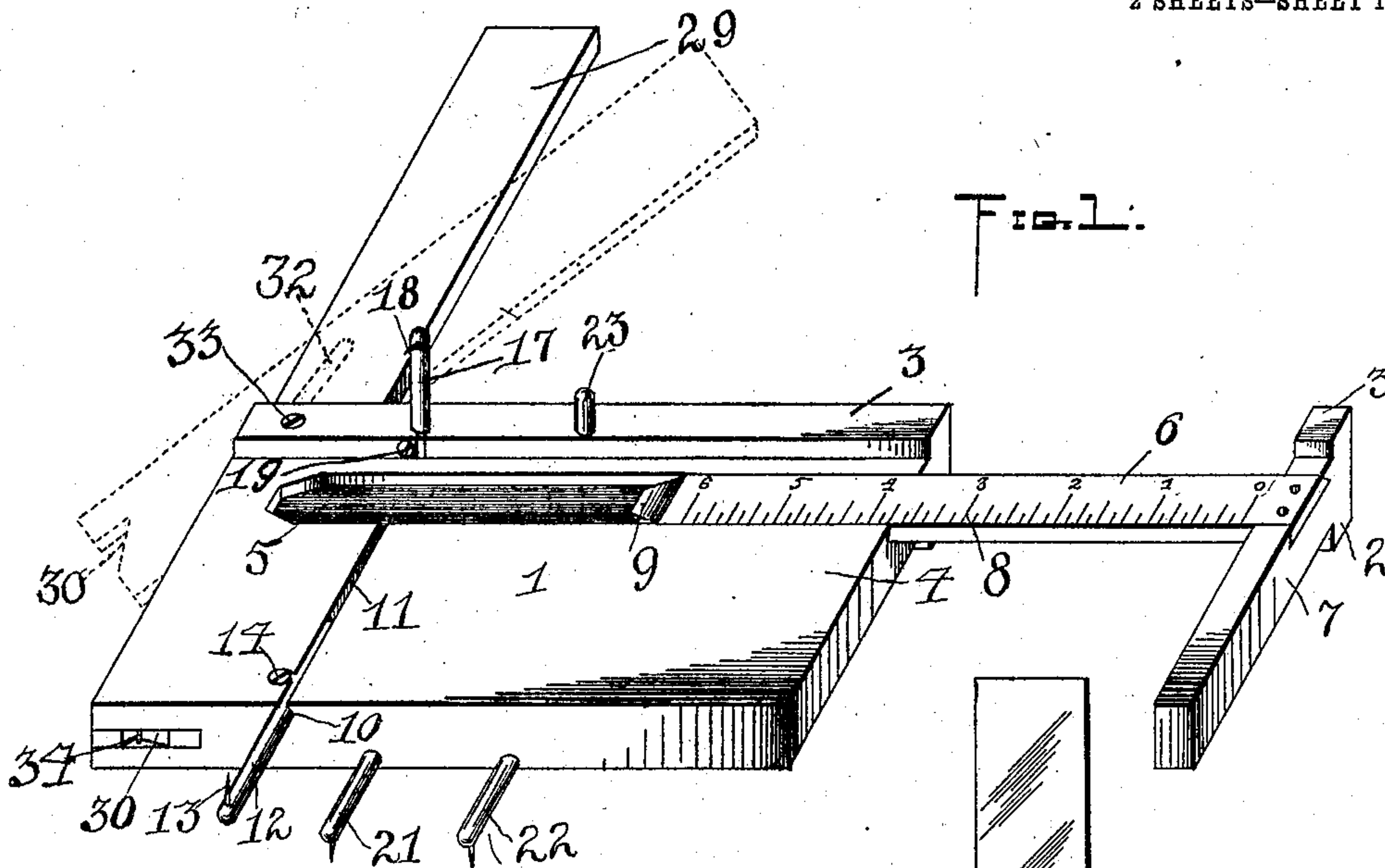
No. 824,134.

PATENTED JUNE 26, 1906.

G. D. McLEOD.
MORTISE OR HINGE GAGE.

APPLICATION FILED AUG. 22, 1904. RENEWED OCT. 27, 1905.

2 SHEETS—SHEET 1.



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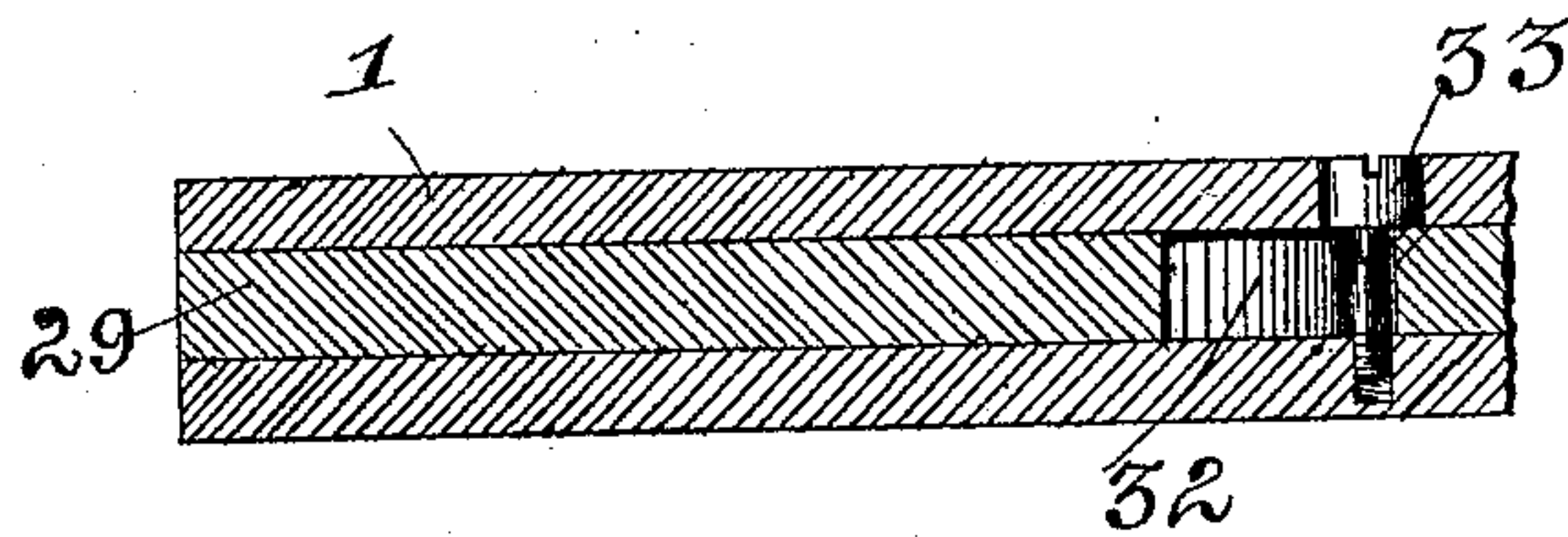
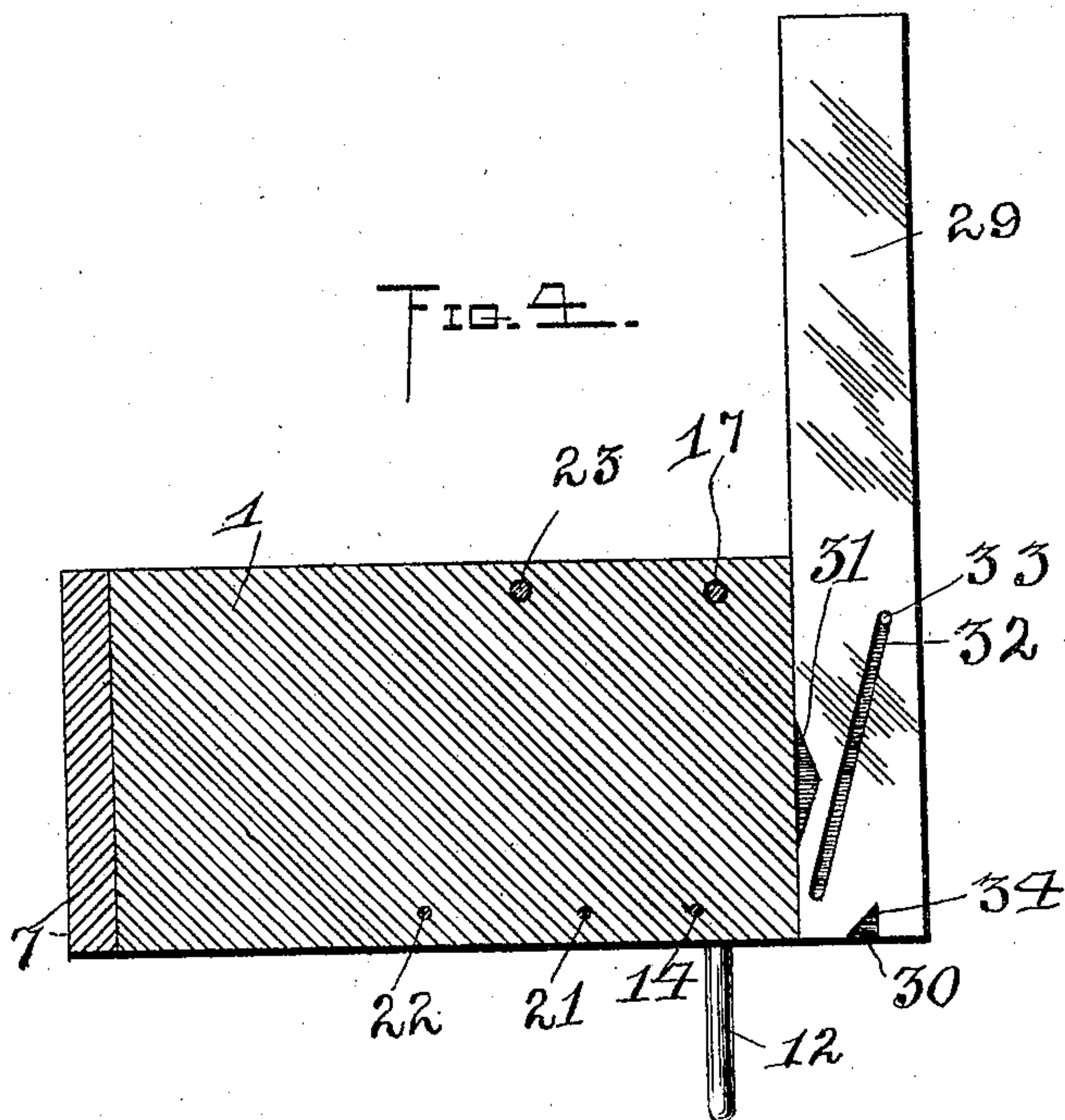
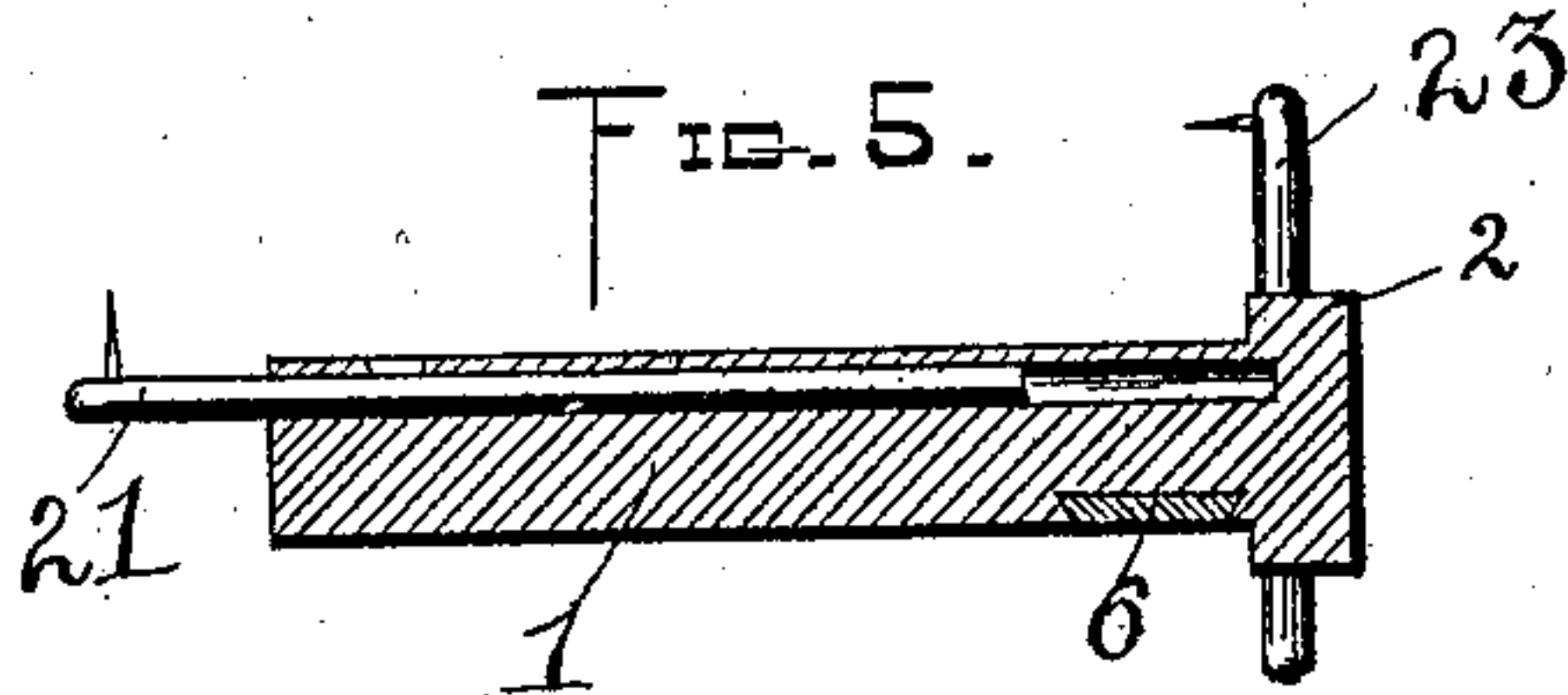


FIG. 6.

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UNITED STATES PATENT OFFICE.

GEORGE D. McLEOD, OF CHICAGO, ILLINOIS.

MORTISE OR HINGE GAGE.

No. 824,134.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed August 22, 1904. Renewed October 27, 1905. Serial No. 284,706.

To all whom it may concern:

Be it known that I, GEORGE D. McLEOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Mortise or Hinge Gages; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in gages used for locating the countersink in a door or door-jamb for the registering wings of the hinge, for marking mortises in mortise-and-tenon work, and for similar purposes.

One object of my invention is to provide a simple, durable, and efficient device of this character by means of which the length, breadth, and depth of the countersink or mortise may be marked by one application of the tool.

Another object of my invention is to combine with a gage of this character an adjustable blade by means of which the tool may be used as a try-square or a bevel.

A further object of my invention is to improve and simplify the construction and operation of tools of this character and thereby render them more durable and efficient in use and less expensive to manufacture.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved tool. Fig. 2 is a plan view of the opposite side of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a similar view taken in a plane at right angles to the plane of Fig. 3. Fig. 5 is a transverse sectional view. Fig. 6 is a detail sectional view showing the set-screw for adjusting the square and bevel blade.

Referring to the drawings by numeral, 1 denotes the body of the tool, which is preferably angular in form and provided upon opposite faces adjacent to one of its sides with longitudinally-disposed ribs 2 and 3, so that the body is substantially T-shaped in cross-section.

In the face 4 of the body 1 is formed a longitudinally-disposed dovetailed groove 5, in which a plate or bar 6 is slidably mounted,

the edges of said plate being beveled to engage the beveled walls of said groove. This slide 6 carries upon its outer end a transversely-disposed head 7, which corresponds in shape to a cross-section of the body 1, so that when said slide is forced into the groove the head 7 forms a continuation of the body. The outer face of the slide 6 is provided with a scale, as shown at 8, to indicate the distance of the head 7 from the end of the body 1. The inner end of the slide 6 is tapered and beveled, as shown at 9, in order that the said slide when removed from the groove 5 may be used as a screw-driver, the head 7 serving as a handle, as will be readily understood.

Extending transversely through the body 1 adjacent to one of its ends is a bore 10 and a transverse slot 11, which communicates with said bore and opens outwardly into the face 4 of the body. Slidably mounted in said bore, which is preferably circular in cross-section, is a cylindrical rod 12, carrying adjacent to one end a marking pin or point 13, which extends through and slides in said slot 11 and projects slightly above the face 4. Said rod is moved longitudinally in said groove to adjust its pin 13 toward and from the rib 2 upon the body, and it is adapted to be secured in its adjusted position by means of a set-screw 14, which is screwed into a threaded opening formed in the body 1 adjacent to the slot 11 and has formed upon it a tapered or conical portion 15, which is adapted to impinge against the rod 12 when the screw is driven into the said recess. The head of said set-screw lies in the countersunk portion of the body, so that it does not project above the face 4.

Formed in the body 1 and extending through its ribs 2 and 3 is a transverse bore 16, in which is slidably mounted a rod 17, carrying a marking-pin 18 adjacent to one of its ends. Said rod 17, which is similar in construction to the rod 12, is adjustably secured in its bore by a set-screw 19, so that the point 18 may be adjusted toward and from the face 4 of the body. Said pin 18, it will be noticed, projects slightly beyond the rib 2 and is adjustable in a plane at right angles to a plane in which the pin-point 13 is adjustable. The pin-carrying rods 12 and 17 coact with the face 4 and rib 2 of the body and are preferably disposed opposite each other, as clearly shown in Fig. 1 of the drawings.

Coacting with the opposite face 20 of the body 1 are two point-carrying rods 21 and 22, disposed in a plane parallel to the face 20, and a third point-carrying rod 23 is disposed in a plane at right angles to said rods 21 and 22. Said rod 23 is slidably and adjustably mounted, by means of a set-screw 24, in a bore extending through the ribs 2 and 3 intermediate their ends, and the rods 21 and 22 are slidably and adjustably mounted, by means of set-screws 25 and 26, in bores extending transversely through the body 1 upon opposite sides of the center of the body. The point of the rod 23 is adjustable toward and from the face 20 of the body, and the point of the rods 21 and 22 slide in slots 27, communicating with their bores, and are adjustable toward and from the rib 3.

In one end of the body 1 is formed a transverse groove or recess 28, in which is mounted an adjustable blade 29. Said blade is formed in one end with a notch 30, in one of its sides with a notch 31, and in the end adjacent to said notches with an angularly-disposed slot 32.

Extending through the ribs 2 and 3 of the body is a set-screw 33, which also passes through the slot 32 in the blade and the recess 28 in the body and has provided upon it a collar or enlarged portion which is adapted to bear against the blade to hold the same against movement.

Extending through the slot 29 adjacent to one of its ends is a pin 34, which is adapted to be engaged by the notch 30 in the end of the blade to hold the latter in a position at right angles to the body 1, as clearly shown in Fig. 4 of the drawings. When said notch 30 is disengaged from the pin 34, the blade 29 may be swung at any desired angle with respect to the body 1 to permit the tool to be used as a bevel, the said blade being secured in its angular positions by means of the set-screw 33.

In using my improved gage only the point-carrying rods upon one of its faces are used during one application of the tool to the object to be marked. When it is desired to mark the location of the countersink for the registering wings of a hinge, the rod 23, the rod 21 or 22, and the slide 6 are preferably used, the rod 23 being adjusted so that its point will mark the depth of the countersink, the points of the rods 21 and 22 being adjusted to mark the breadth of said countersink, and the slide or extensible member 6 being adjusted to mark the length of the said countersink. When the parts are thus adjusted and the tool is placed against a door or door-jamb, said marking-points upon the rods will mark the breadth and depth of the countersink, and by means of a knife or other pointed tool the length of the same, as indicated by the adjustment of the slide 6 and its head 7, may be marked. The operation of the point-carrying rods 12 and 17 is simi-

lar to that of the rods 23, 21, and 22 and will be readily understood from the foregoing explanation. Although the gage-rods may be used interchangeably for different kinds of work, it will be noticed that the rods 23, 21, and 22 are particularly adapted for mortise-and-tenon work and the rods 12 and 17 for hingework. Rods 21 and 22 may be used in conjunction with rod 23 as a butt-gage where the butt is set farther in the jamb than in the door, so that it will not be necessary to have an extra gage or change one of the gage-rods.

It will be seen that the slide 6 and its head 7 may also be used as calipers, the scale 8 upon said slide indicating the distance between the head and the end of the body, and when said slide is removed from the body it may be used as a screw-driver, as will be readily understood.

By providing the blade 29 it will be seen that the tool is adapted for use as a try-square or a bevel, according to the adjustment of the blade with respect to the body.

While I have shown and described the preferred embodiment of my invention, it will be understood that I do not wish to be limited to the precise construction herein set forth, since various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A gage of the character described, comprising a body, point-carrying rods adjustably mounted in said body in directions at right angles to each other, and a member upon said body adjustable in a direction at right angles to the directions of adjustment of said point-carrying rods, substantially as described.

2. A gage of the class described, comprising a body, a longitudinally-adjustable member slidably mounted in said body, marking-rods slidably mounted in said body in directions at right angles to each other and to the said longitudinally-adjustable member, and means for securing said rods in an adjusted position, substantially as described.

3. A gage of the class described, comprising a body having a longitudinal rib, a longitudinal groove and transverse bores extending at right angles to each other, point-carrying rods slidably mounted and adjustably secured in said bores, a longitudinally-adjustable slide mounted in said groove, and provided with a transverse head, and a blade within said body extending at right angles thereto to permit the device to be used as a square, substantially as described.

4. A gage of the class described, comprising a body having a longitudinal rib along one edge, a longitudinal groove in one of its

faces and transverse bores extending at right angles to each other, point-carrying rods slidably mounted and adjustably secured in said bores, a longitudinally-adjustable slide 5 mounted in said groove and provided with a transverse head, and an angularly-adjustable blade within said body.

5. A gage of the class described, comprising a body formed with a bore and a slot 10 communicating with said bore, a rod slidably mounted in said bore, a marking-pin upon said rod and extending through said slot, and a set-screw in said body formed with a tapered portion adapted to engage said rod 15 to hold the same against movement, substantially as described.

6. A gage of the class described, comprising a body formed with a transverse recess

in one end, indicating devices adjustably 20 mounted upon said body, a blade projecting into said recess and formed with a notch in one end and an angularly-disposed slot adjacent to said notch, a pin in said recess adapted to be engaged by said notch, and a set-screw in said body projecting through said 25 slot to hold said blade in said recess and to secure the same in an adjusted position, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 30

GEORGE D. McLEOD.

Witnesses:

R. LEHMANN,
WILLIAM SAAR.