J. SWITZER.

GAGE.

APPLICATION FILED APR. 10, 1919.

1,344,569. Patented June 22, 1920.

Fig. 1.

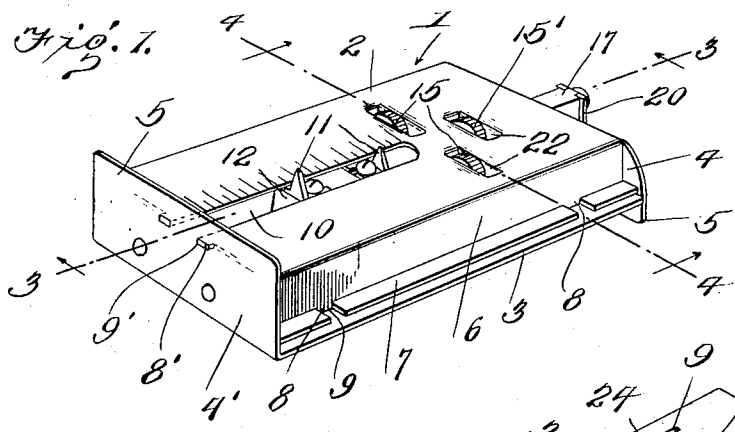


Fig. 5.

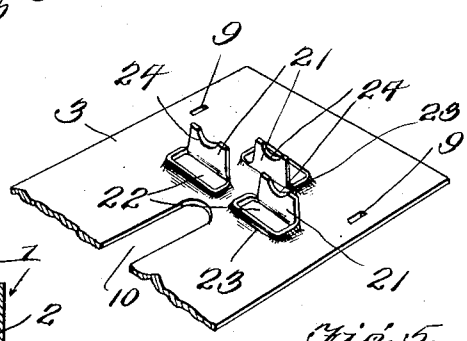


Fig. 2.

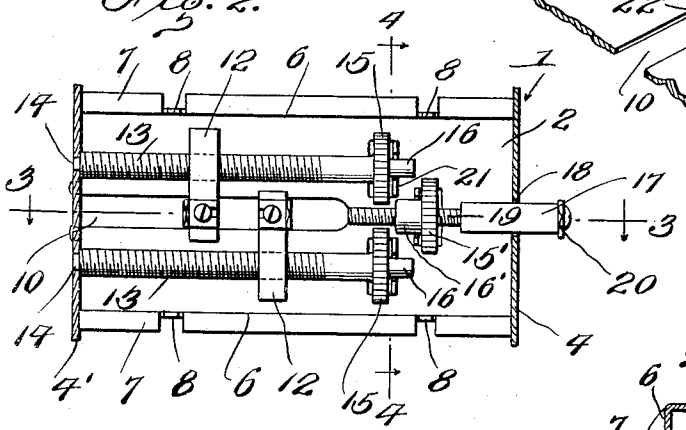


Fig. 4.

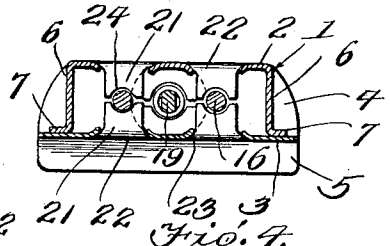
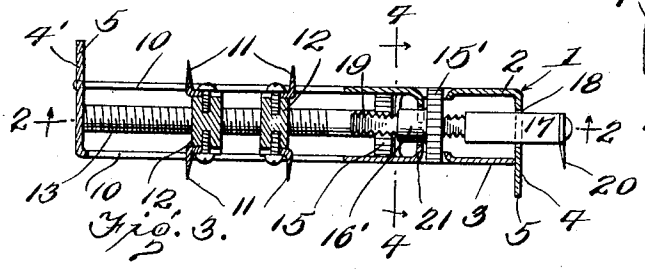


Fig. 3.



WITNESS

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JUDSON SWITZER, OF PORTLAND, OREGON.

GAGE.

1,344,569. Specification of Letters Patent. Patented June 22, 1920.

Application filed April 10, 1919. Serial No. 289,050.

To all whom it may concern:

Be it known that I, JUDSON SWITZER, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in 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 the class of gages used primarily by carpenters, and has for its object to improve upon the construction shown by my U. S. Patent No. 1223531, of April 24, 1917, first by providing novel means for adjusting the scribes, and second to provide an improved casing for the tool.

With the foregoing in view, the invention resides in the novel features of construction and unique association of parts hereinafter fully described and claimed, reference being made to the accompanying drawing.

Figure 1 is a perspective view of a gage constructed in accordance with my invention.

Fig. 2 is a longitudinal section looking toward the top of Fig. 1 as indicated by the line 2—2 of Fig. 3.

Fig. 3 is a central longitudinal section on the plane indicated by the line 3—3 of Figs. 1 and 2.

Fig. 4 is a transverse section on the plane indicated by the lines 4—4 of Figs. 1, 2 and 3.

Fig. 5 is a detail sectional perspective view of one side plate of the casing, showing more particularly the bearing means and the openings for the thumb wheels employed for operating the adjusting means of the scribes.

In the drawing above briefly described, the numeral 1 designates a substantially flat casing formed of two rectangular metal plates 2 and 3, one end of the plate 2 being bent laterally in one direction to provide one end wall 4 for the casing, while at 4′, the opposite end of the plate 3 is bent in the opposite direction, both of said plate ends extending laterally beyond the casing to provide guide flanges 5 for engagement with the edge of the work to be marked by the gage. The side edges of the plate 2 are bent toward the plate 3 to form the edge walls 6 of the casing 1 and the free edges of these walls are by preference bent outwardly to provide flanges 7 which rest on said plate 3 as shown clearly in Figs. 1 and 4. Any preferred means might well be employed for securing the two parts of the casing 1 together, but I prefer to stamp portions of the flanges 7 to form lugs 8 which pass through and are upset in slots 9 formed in the plate 3; and in addition to this fastening means, projecting lugs 8′ may well be formed on the plate 2 for reception in the slots 9′ in the end wall 4′.

Both sides of the casing are provided with central longitudinal slots 10 through which scribes 11 project, said scribes being carried by slides 12 mounted within the casing 1. A pair of longitudinal screws 13 are threaded through the slides 12 for adjusting them, one end of each of the screws being reduced and rotatably mounted in the end wall 4′, as seen at 14, while the other ends of said screws are provided with thumb wheels 15 having hubs 16. A central, rectangular slide 17 passes through an opening 18 in the end wall 4 and is provided on its inner end with a bolt or screw 19 which is preferably flat-sided for reception between the two thumb wheels 15, the outer end of said slide carrying a scribe 20 while the hub 16′ of an additional thumb wheel 15′, is threaded on said bolt or screw for adjusting the latter longitudinally to move the scribe 20 toward and away from the flange 5 of the end wall 4.

For mounting the hubs 16 and 16′, on the thumb wheels 15 and 15′ and at the same time for giving access to said thumb wheels for operating them, without the necessity of projecting the peripheries of the wheels beyond the flat sides of the casing 1, a novel construction is employed. Restricted portions of the plates 2 and 3 are stamped inwardly to simultaneously provide inwardly extending lugs 21 and slots 22, the latter receiving the peripheral portions of the wheels 15 and 15′, while the former serve as bearings for the aforesaid hubs, and in order that the wheels 15 and 15′ may be readily engaged by the thumb or finger of the user, the metal at the edges of the slots 22 is preferably inwardly stamped as at 23, thus forming external depressions into which the wheels project through the slots 22. Notches 24 are formed in the inner ends of the lugs 21 and since the lugs of the two plates are directly opposed, complete bear-

ings are thus formed for the hubs 16 and 16′ of the thumb wheels.

By constructing the device in the above described manner, it is much more advantageous than the article disclosed in the patent above mentioned, particular emphasis being laid upon the fact that the casing is less expensive and easier to manufacture, while like importance is attached to the novel adjusting means for the several slides and to the bearings employed for the thumb wheels 15 and 15′.

The operation of the present device is identical with the patented article before mentioned and need not, therefore, be entered into in detail, but it may be said that adjustment of the scribes may be much more easily obtained by the present device, since the complete adjusting means is incorporated in the tool and the latter is not therefore dependent upon the application of an extraneous instrument such as a screw driver, for its adjustment.

Since probably the best results are obtained from the details disclosed, they may well be followed, but within the scope of the invention as claimed, considerable latitude is allowed for making such minor changes as occasion may dictate.

I claim:

1. A gage comprising a slide having a scribe, means for adjusting said slide including a thumb wheel, and a casing for said slide and adjusting means having an inwardly stamped portion forming an external recess, said inwardly stamped portion having a slot through which the peripheral portion of the wheel extends into said external recess.

2. A gage comprising a slide having a scribe, means for adjusting said slide including a thumb wheel having a hub, and a casing for said slide and adjusting means having a portion stamped inwardly to simultaneously form an inwardly extending lug and an opening, said wheel extending through the opening and said lug forming a bearing for said hub.

3. A gage comprising a slide having a scribe, means for adjusting said slide including a thumb wheel having a hub, and a casing for said slide and adjusting means, opposed sides of said casing having inwardly stamped portions to simultaneously provide inwardly extending lugs and openings, said wheel extending through said openings and said lugs having notches in their inner ends which together form a bearing for said hub.

4. A gage comprising a flat casing having a longitudinal central slot in at least one side, a pair of slides in said casing having scribes extending through and movable along said slot, a pair of screws at the sides of the slot for adjusting said slides, a third slide disposed at the longitudinal center of the casing and extending through one end thereof, a screw for adjusting said third slide, and thumb wheels for adjusting all of said screws, the sides of the casing having openings through which said wheels extend for operation.

5. A gage comprising a casing formed of two sheet metal plates spaced apart to form the casing sides, one end of one plate and the other end of the other plate being bent in opposite directions to provide ends for the casing, at least one of said ends extending laterally from the casing to provide a guide flange, the side edges of one plate being bent toward the other plate to form the edge walls of the casing, means for securing the parts of the casing together, a scribe, and means in the casing for adjusting said scribe.

In testimony whereof I have hereunto set my hand.

JUDSON SWITZER.