May 2, 1944. T. H. BURCH 2,347,659

ADJUSTABLE CIRCUMFERENCE SCRIBER

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FIG. 1.

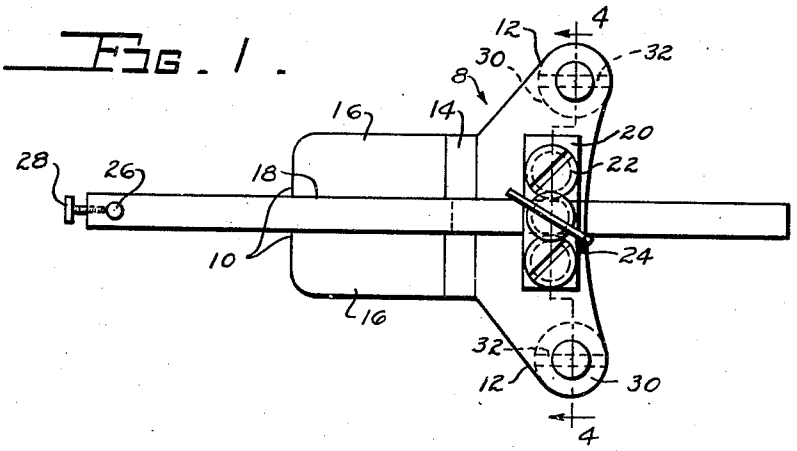



FIG. 2.

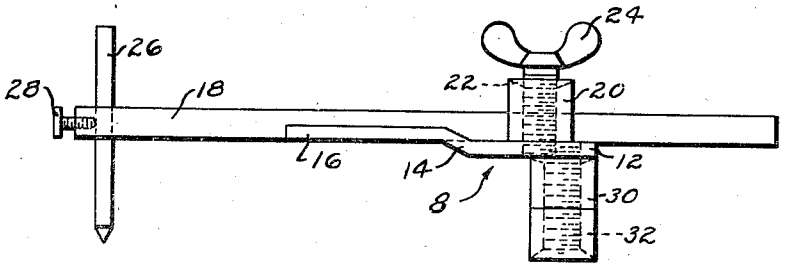



FIG. 3.

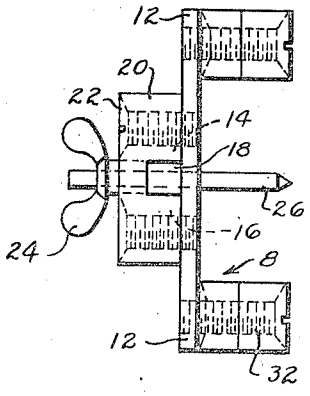
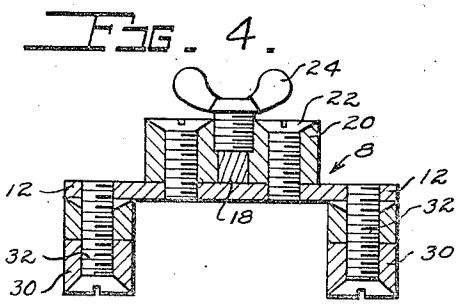



FIG. 4.




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FIG. 5.

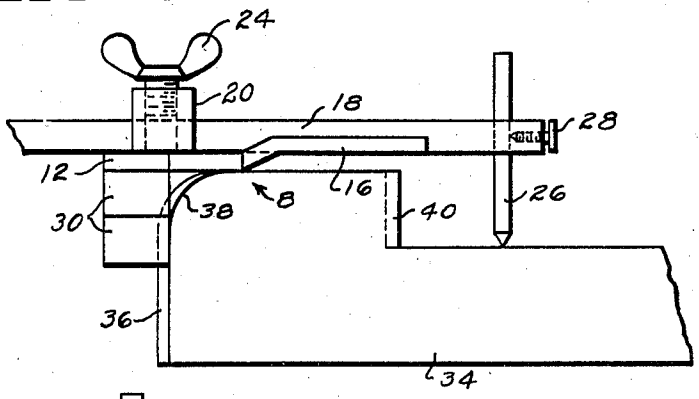



FIG. 6.

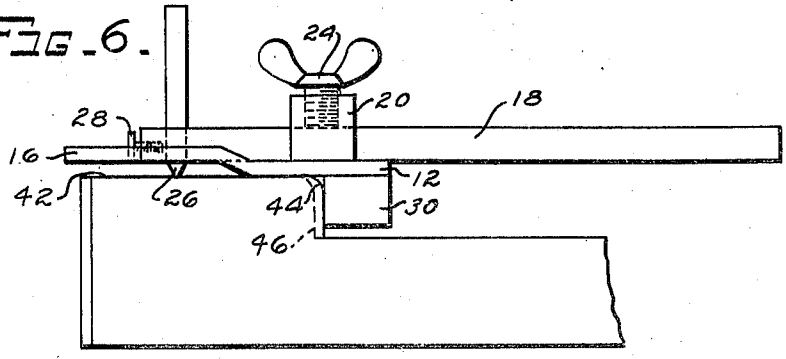
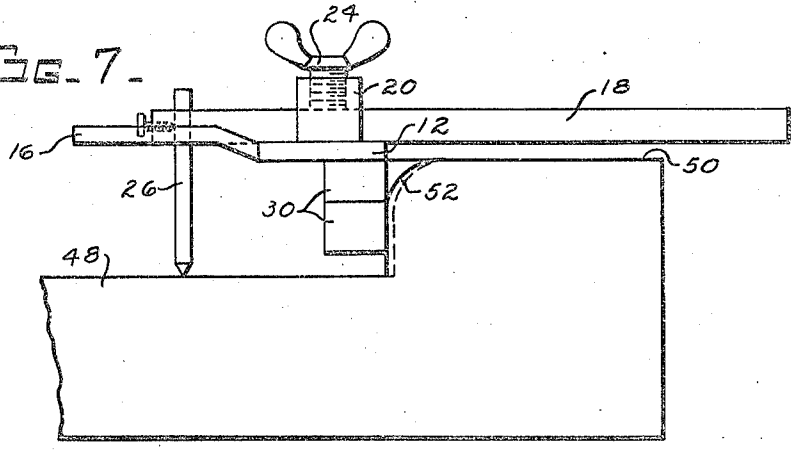



FIG. 7.




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Patented May 2, 1944 2,347,659

# UNITED STATES PATENT OFFICE

2,347,659

## ADJUSTABLE CIRCUMFERENCE SCRIBER

Thomas Harold Burch, Dayton, Ohio

Application April 15, 1943, Serial No. 483,106

1 Claim. (Cl. 33—42)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to scribers, and particularly to a tool for scribing lines at selected distances from a straight or curved edge of the work-piece.

The object of the invention generally is to provide a tool of this character which is more universal in its application than any heretofore known.

More specifically, it is an object of the invention to provide a tool by which circular lines may be inscribed or circumscribed on a work-piece concentric with an existing circular edge of the piece.

Another object is to provide a tool with which one may scribe a line at a given distance from an edge on the work-piece whether said edge is straight or curved.

Other objects and advantages will be perceived as the invention is described in greater detail and reference is made to the drawings, wherein,

Fig. 1 is a top plan view of the assembled scriber.

Fig. 2 is a side elevation of the assembled scriber.

Fig. 3 is an end elevation of the assembled scriber.

Fig. 4 is a transverse section taken at 4—4 of Fig. 1.

Figs. 5, 6 and 7 show several applications of the scriber to different situations encountered in practice.

Similar reference characters refer to similar parts throughout the several views.

A base 8, having a body portion 10 and two oppositely extending arms 12 may preferably be made of heavy sheet stock and offset as at 14, the forward or body portion 16, which is raised by the offset, being then slotted lengthwise to provide two guides 16 which form a guideway between which the rectangular beam 18 is slidable. Beyond the offset 14 the beam lies on the top of the base, a yoke 20 being slotted to slidably receive the beam, the yoke being secured to the base over the beam by screws 22. A wing thumb screw 24 is fitted to the yoke for fixing the beam in any position to which it may be adjusted.

At the front end, the beam 18 is drilled for the scriber point 26 which may be adjusted vertically to any desired position and held by tightening the small knurled thumb screw 28.

One or more gauge collars 30 are attached to the underside of each arm 12 of the base 8 by the screws 32. In working from an edge having a large radius, a greater number of the gauge collars 30 may be required.

The operation of the device is illustrated by Figs. 5, 6 and 7. In Fig. 5, a circular line is being inscribed on a work-piece 34, the gauge collars 30 here engaging the outer diameter 36. Two collars 30 are employed on each arm 12 of the base 8, since the edge from which the tool is guided has a relatively large radius 38. Due to the offset 40 in the work-piece, the scriber point 26 is considerably extended.

In Fig. 6, a circular line is being circumscribed on the face 42 of a circular work-piece. Only one gauge collar 30 on each arm 12 of the base 8 is required because of the small radius 44 on the inside circular edge 46 from which the tool is being guided. The scriber point 26 is extended but slightly.

In Fig. 7, a circular line is being inscribed on a depressed surface 48 within the circular ledge 50 on the work-piece. Two collars 30 are used on each arm 12 of the base 8 because of the relatively large radius 52. The scriber point 26 is here necessarily extended considerably in order that the beam 18 will clear the ledge 50.

While a single embodiment only of the improved adjustable circumference scriber has been shown and described, other embodiments are contemplated within the scope of the claim, and while several examples of its use have been shown in which circular reference surfaces, both internal and external, are employed, it is obvious that a line may as readily be scribed with reference to a straight or otherwise curved edge on a work-piece.

Having thus described the invention, I claim:

An improvement on an adjustable scriber of the kind having a beam with a scriber near one end, a base with guideways in which said beam is endwise slidable, means to fix said beam against endwise movement in said guideways, arms extending oppositely from said base and gauge means depending from said arms near their ends, said improvement comprising a base which consists of a body portion with two oppositely extending arms at one end, said base being constructed of relatively heavy sheet stock offset flatwise intermediate its ends, the upwardly offset or body portion being slotted through to provide a sliding guideway for a beam, and each said arm having secured thereto on its underside one or more gauge collars, said beam lying upon the upper surface of the downwardly offset portion, a yoke secured to the upper surface of said downwardly offset portion over said beam, said yoke having the underside grooved to slidably receive said beam, and a thumbscrew having threaded bearing in said yoke and adapted to clamp said beam against endwise movement in said yoke.

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