April 15, 1930. J. W. PARKER 1,755,152

RADIUS TOOL

Filed June 18, 1928

FIG. 1.

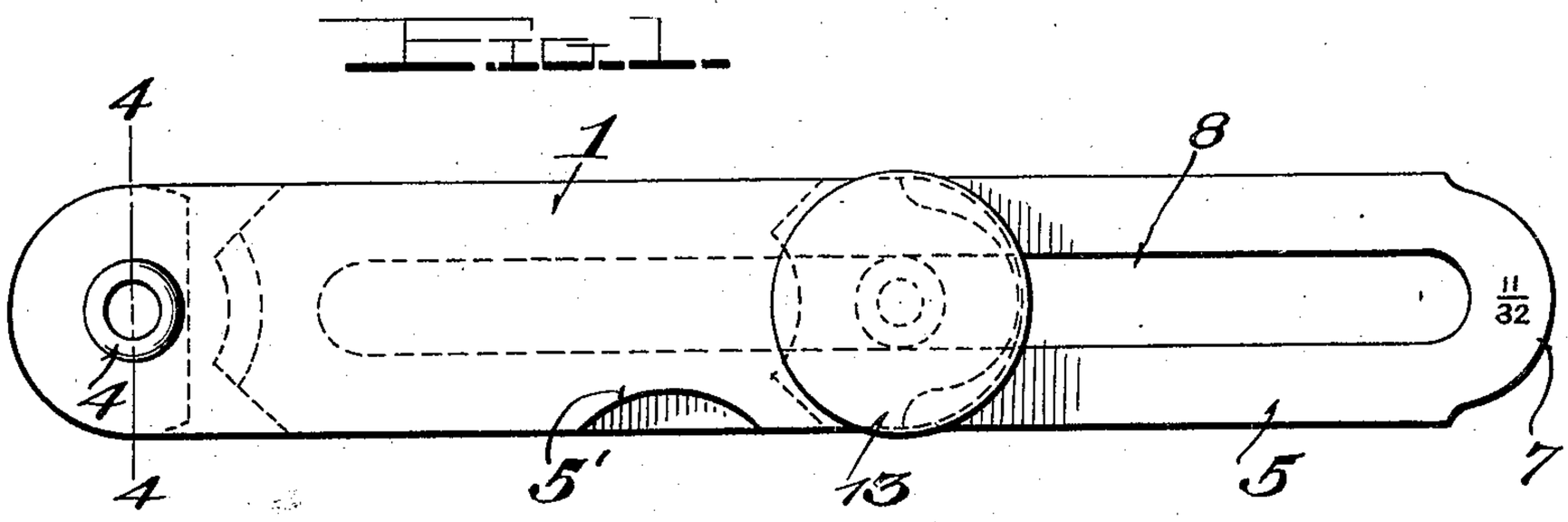


FIG. 2.

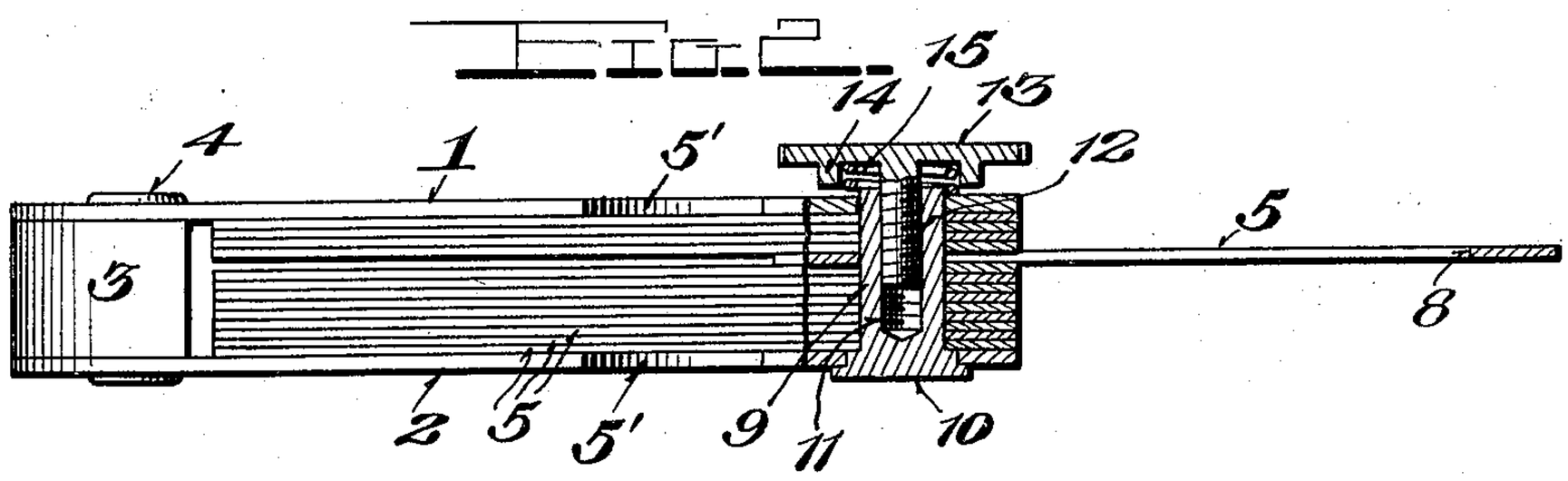


FIG. 3.

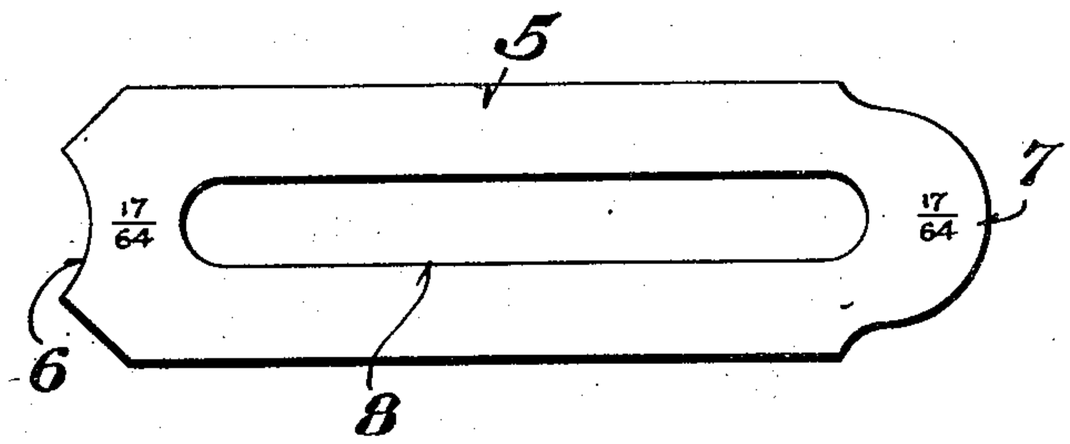
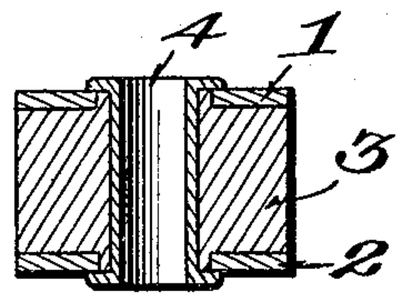


FIG. 4.



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Patented Apr. 15, 1930 1,755,152

UNITED STATES PATENT OFFICE

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RADIUS TOOL

Application filed June 18, 1928. Serial No. 286,135.

This invention relates to certain new and useful improvements in radius tools, and the primary object thereof, is to provide a tool of this character, which is designed to measure the radii of both concave and convex objects.

A further object of the invention is to provide a tool of this type which has a considerable number of measuring blades graduated for different radii, and to also provide for easy and convenient manipulation of the blades.

Still further the invention aims to provide a holder which enables any blade to be easily and quickly projected for use, while still maintaining the remaining blades in the holder.

In the drawings:—

Figure 1 is a top plan view of the invention showing one of the blades projected for use;

Figure 2 is a central longitudinal sectional view of Figure 1;

Figure 3 is a detail view of one of the blades, and

Figure 4 is a section on line 4—4 of Fig. 1.

In proceeding in accordance with the present invention a holder is employed which embodies a pair of opposed spring plates 1, and 2, connected at one end to opposite ends of a post 3, by means of a hollow rivet, 4, headed into engagement with the plates as depicted in Figure 3. The post 4, is preferably of generally semi-circular form, while the plates are formed with registering finger receiving cut outs 5, to provide for convenient access to the measuring blades.

The blades 5, have concave ends 6 and convex ends 7 which are graduated as to different radii and are marked accordingly. The blades are each further formed with longitudinal slots 8, which latter receive therethrough the shank 9 of a pin having a head 10, which latter bears against one of the plates. The shank is formed with a threaded hole 11, engaged by the threads of a screw 12, the screw having a head 13, and a circular flange 14, to house a coil spring 15, which latter encircles the screw shank, and functions to place the head under tension and thereby against accidental rotation, and at the same time to force the spring plates 1, and 2, toward each other thereby to hold the blades under tension.

As depicted in the drawings, the blades are formed of thin material, consequently a considerable number of same can be employed in a single holder. In operation, the screw normally holds the plates 1, and 2, under tension and against the blades. When it is desired to use the blades, the screw is loosened, whereupon the desired blade may be slid to the position of Figures 1 and 2 and may be reversed by sliding as is evident, so as to present the convex or the concave end of the blade for convenient use. Due to the spring properties of the plates 1 and 2 and the tension of the spring 15, the remaining or housed blades will be held within the holder, so as to not cause annoyance to or interfere with the work of the operator.

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

In a radius tool, a pair of spring plates, a post at one end of the plates, means to connect the plates to the opposite ends of the post, a series of longitudinally slotted blades disposed between the plates, a pin projected through the slots of the blades and having a head engaged with the opposite end of one of the plates, and having a threaded bore, a screw in the bore having a head with a circular flange on its under side, and a coil spring encircling the screw and housed at one end within the flange and engaged at its other end with the other plate to tension the latter and to hold the screw against accidental rotation.

In testimony whereof I have signed my name to this specification.

JOHN W. PARKER.