July 31, 1928. 1,679,189

A. H. WADELL

MICROMETER ATTACHMENT FOR ADJUSTING TOOLS

Filed April 6, 1927

Fig. 1

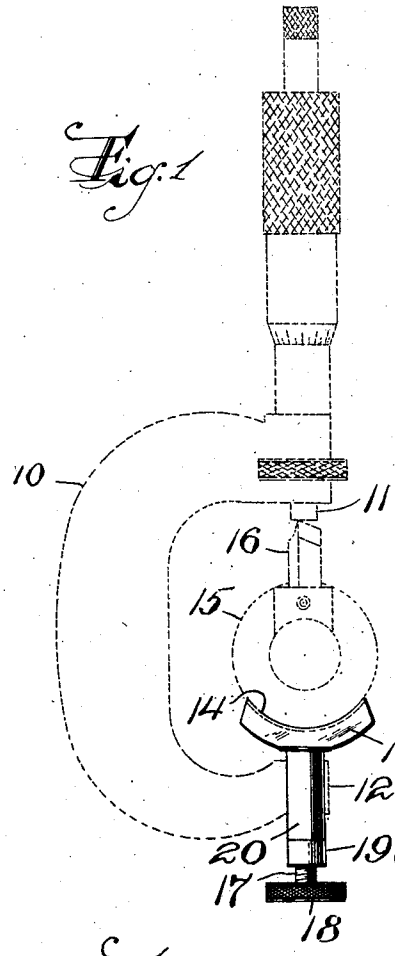


Fig. 2

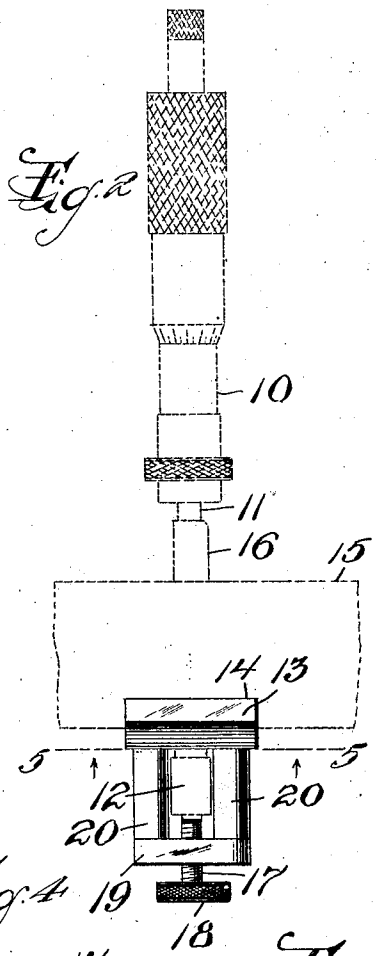


Fig. 3

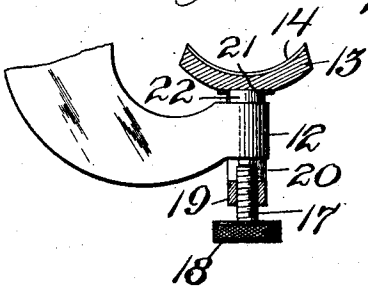


Fig. 4

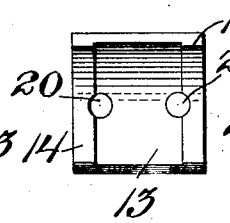
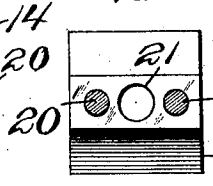


Fig. 5



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Patented July 31, 1928. 1,679,189

UNITED STATES PATENT OFFICE.

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MICROMETER ATTACHMENT FOR ADJUSTING TOOLS.

Application filed April 6, 1927. Serial No. 181,287.

This invention relates to an improved device for the accurate setting of machine elements and particularly articles which project from shafts such as the tools in boring bars and other similar mechanisms.

The invention comprises an attachment for a micrometer, which attachment is adapted to form an arcuate bearing face for resting on the periphery of a shaft and when placed opposite the element to be adjusted the contact of the micrometer is brought down to the proper reading and in contact with the element so that the adjustment is not only accurate but is quickly accomplished.

The invention is illustrated in the accompanying drawings in which Figure 1 is a side view of the attachment shown mounted on a micrometer which is illustrated in dotted outline. Figure 2 is a front view of the device shown in Figure 1. Figure 3 is a vertical central section of the attachment with the bottom part of the micrometer shown in elevation. Figure 4 is a top view of the device and Figure 5 is a section taken on line 5—5 in Figure 2.

It will be evident that the invention can be used with various instruments of precision but the usual instrument is a micrometer which is shown at 10 in the drawing and is of the usual form with the movable contact 11 at one end for adjustment and the fixed contact 12 on the other end for support or abutment of the article to be measured.

My improvement consists of a member that is placed on the fixed contact of the micrometer and has its upper face, that is, the face opposite to the plunger 11 formed so that it will engage the periphery of a cylindrical element such as a shaft, this face either being arcuate or provided with separated contact points.

In the drawing I show the member consisting of an arcuate plate 13, the upper face 14 of which receives the shaft 15 in order that the tool 16 can be arcuately placed as to the distance it is to project from the shaft to finish a certain size bearing or hole. A member or attachment is readily attachable or detachable as they are interchangeable for various sizes of shafts or bearings and the form illustrated is secured to the fixed contact 12 by means of a screw at 17 with the handle 18, the screw being adapted to bear on the bottom of the fixed contact 12 and is in screw-threaded engagement with the cross-arm 19 which with the up-right posts 20 forms a stirrup. The top part of the attachment is held against any side movement by the engagement of the side walls of the depression or recess 21 with the usual slight projection or lug 22 which is a part of the fixed contact of the usual standard micrometer.

In the practice of using these attachments for certain radii, the attachments are marked with a constant which indicates to anyone skilled in the art the excess of measurement between the center of the radius and the face 14 and the end of the tool 16.

I claim:

An attachment for micrometers comprising a member having an arcuate plate at the top, a stirrup projecting downwardly therefrom, and a screw passing through the bottom of the stirrup whereby the fixed contact of a micrometer can be clamped between the screw and the bottom of the plate.

In testimony whereof I affix my signature.

ALBERT H. WADELL.