F. PFLEIDERER, Jr. & J. N. BAGLEY.

CENTERING TOOL.

APPLICATION FILED OCT. 17, 1914.

1,160,752.

Patented Nov. 16, 1915.

2 SHEETS—SHEET 1.

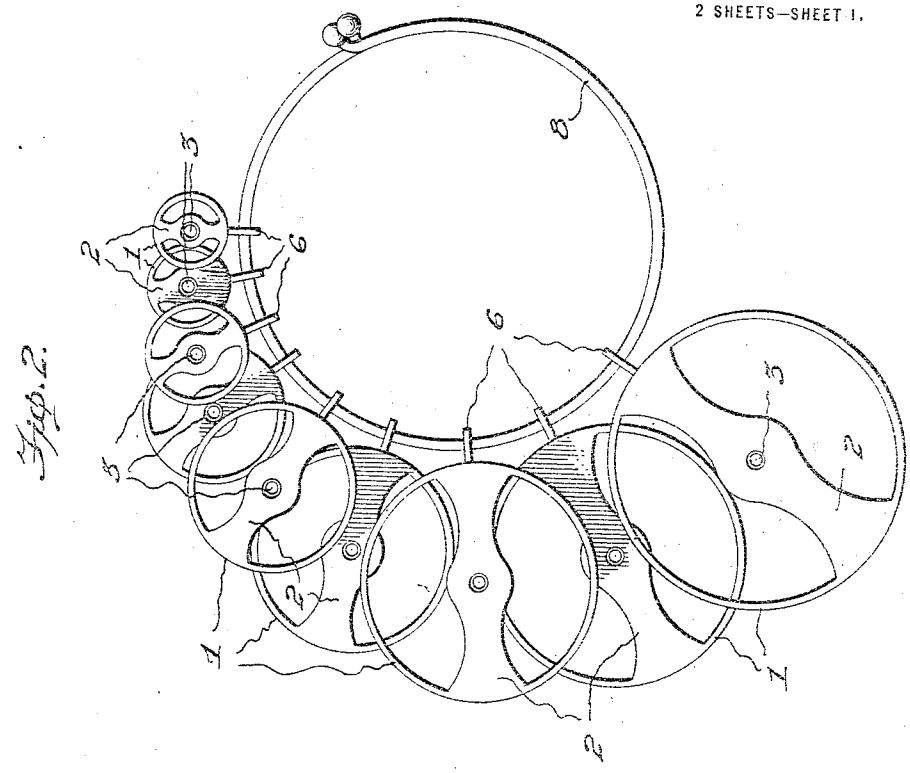


Fig. 2.

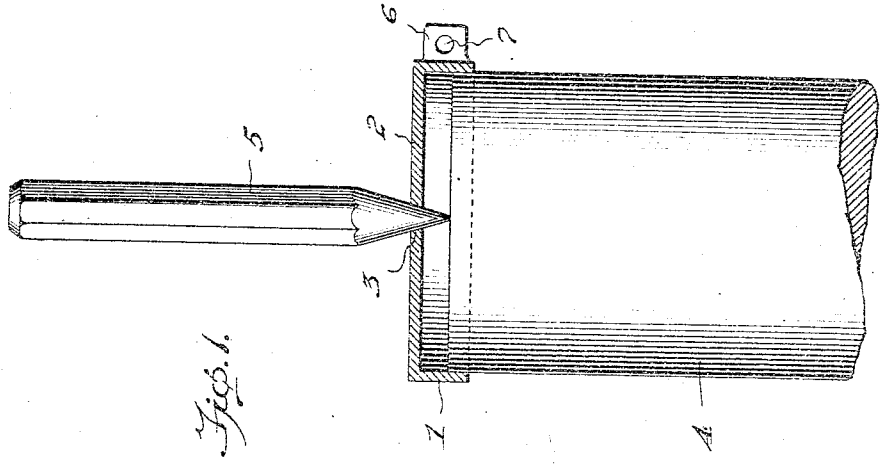


Fig. 1.

Witnesses

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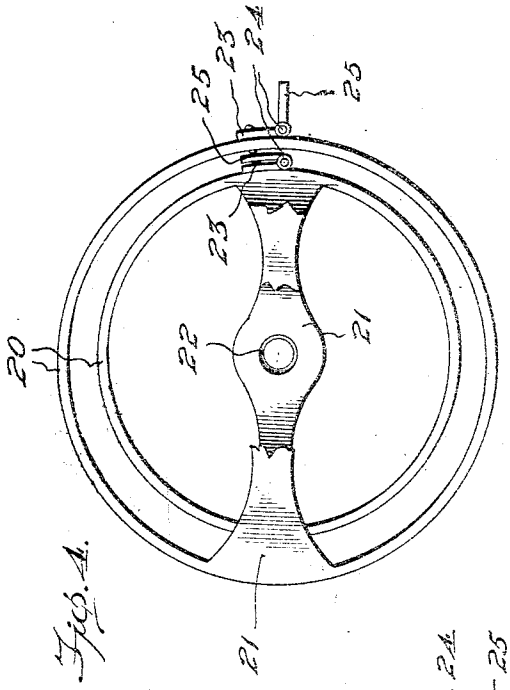


Fig. 4.

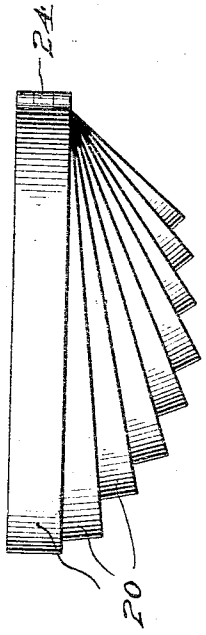


Fig. 5.

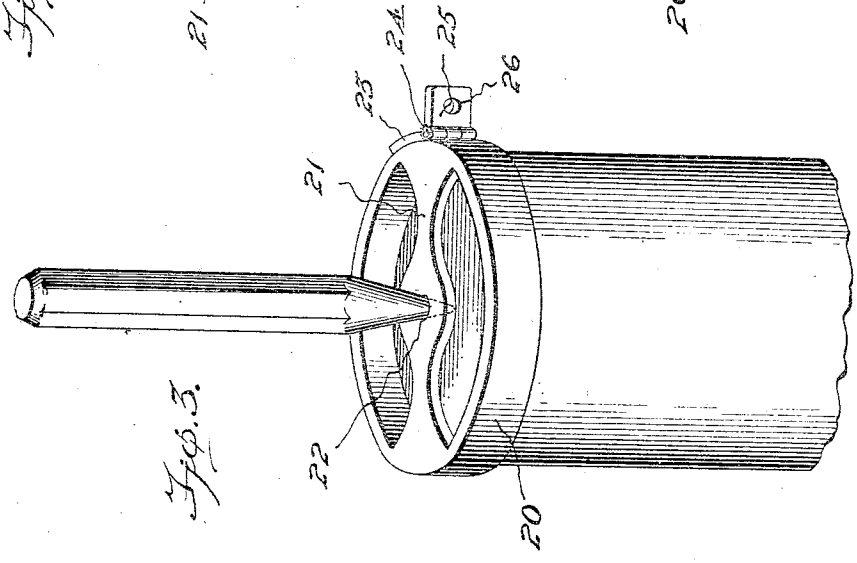


Fig. 3.

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UNITED STATES PATENT OFFICE.

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CENTERING-TOOL.

1,160,752. Specification of Letters Patent. Patented Nov. 16, 1915.

Application filed October 17, 1914. Serial No. 867,232.

To all whom it may concern:

Be it known that we, FRED PFLEIDERER, Jr., and JOHN N. BAGLEY, citizens of the United States, residing at Superior, in the county of Nuckolls and State of Nebraska, have invented certain new and useful Improvements in Centering-Tools; and we do hereby 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.

This invention relates to centering tools or gages and the primary object of the invention is the provision of a device of this nature by means of which the exact center of a piece of shafting or cylindrical material may be easily and quickly ascertained.

Another object of this invention is the provision of a centering gage by means of which the diameter of the shafting or cylindrical body may be determined, and also to provide a hingedly connected ear which is secured to the gage for connecting it to a ring or for folding so that a series or set of the gages may be nested or telescoped one within the other.

With the foregoing and other objects in view this invention consists in such novel features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings and claimed.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters designate like or corresponding parts throughout the several views, and in which:—

Figure 1 is a central sectional view through the gage showing the same attached to one end of the cylindrical body and having a centering punch inserted through the opening therein. Fig. 2 is a view showing a series of the gages attached to a ring. Fig. 3 is a perspective view of a modified form of the invention showing the same applied to one end of the cylindrical body and a centering punch inserted therethrough. Fig. 4 is a top plan view of the modified form showing the matter of telescoping the various gages, and Fig. 5 is a detail side elevation showing a set of the gages partially telescoped one within the other.

Referring more particularly to the drawings, 1 designates rings, which form the side of the gage, said rings having their inner diameter of various sizes, to accommodate various sizes of shafts or cylindrical bodies, principally of shafts which are made in standard sizes. The ring 1 has secured to the upper end thereof and extending diametrically across the same an arm 2, which arm is provided with an opening 3 extending therethrough which opening is positioned exactly in the center of the inner diameter of the ring 1, so that when the ring is placed upon the end of a piece of shafting as is shown in Fig. 1 and indicated by the numeral 4, the opening 3 will be in alinement with the center of the shafting. A center punch indicated at 5 in Fig. 1 of the drawings inserted through the opening 3 will puncture or mark the exact center of the shafting when it is inserted through the opening 3.

The ring 1 has an ear secured thereto and projecting radially from the outer surface thereof, which ear 6 is provided with an opening 7 extending therethrough, so that the ring may be mounted upon a key ring indicated at 8 in Fig. 2 of the drawings, for carrying a plurality of the gages and having them convenient for use. The ring 1 may be used as a gage for determining the diameter of shafting or various other cylindrical bodies if it is so desired.

In Figs. 3, 4, and 5 of the drawings a modified form of the gage is shown composed of a ring 20 identical in construction to the ring 1 and which has an arm 21 formed integrally therewith and extending diametrically across the ring, being positioned at the upper edge of the same as is clearly shown in Fig. 3 of the drawings. The arm 21 is provided with an opening 22 which is positioned exactly in the center of the inner diameter of the ring 20. The ring 20 has secured thereto in any suitable manner, a leaf 23 of the hinged structure 24. The leaf 23 of the hinged structure 24 has the leaf 25 pivotally connected thereto, which latter leaf is provided with an opening 26. The opening 26 is provided for mounting upon a key ring as indicated at 8 in Fig. 2 or for attachment to any suitable device as desired. By the provision of hingedly connecting the leaf 25 to the ring 20, various rings of different diameters may be telescoped one within the other as is clearly shown in Figs. 4 and 5 of the drawings, by folding the leaves 23 and 25 upon each other as is shown in Fig. 4.

In reducing the invention to practice certain minor features of construction, combination and arrangement of parts may necessitate alterations to which the patentee is entitled provided such alterations are comprehended within the scope of what is claimed.

What is claimed is:—

1. In a device as set forth, a ring having its inner diameter of a predetermined size, an arm secured to said ring and extending diametrically across the same, said arm having an opening extending therethrough, which opening is positioned exactly in the center of the inner diameter of said ring, said ring having a hinge leaf securely attached thereto, a second hinge leaf pivotally connected to said first named hinge leaf, said second hinge leaf having an opening extending therethrough.

2. In a centering gage, a metallic ring having a predetermined inner diameter, and an arm formed integrally with said ring and extending diametrically across the ring, said arm having its ends formed integral with the ring adjacent to the upper edge of the latter, said arm having its central portion enlarged and provided with a centering opening.

In testimony whereof we affix our signatures in presence of two witnesses.

FRED PFLEIDERER, JR.
JOHN N. BAGLEY.

Witnesses:
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J. LLOYD RANKIN.