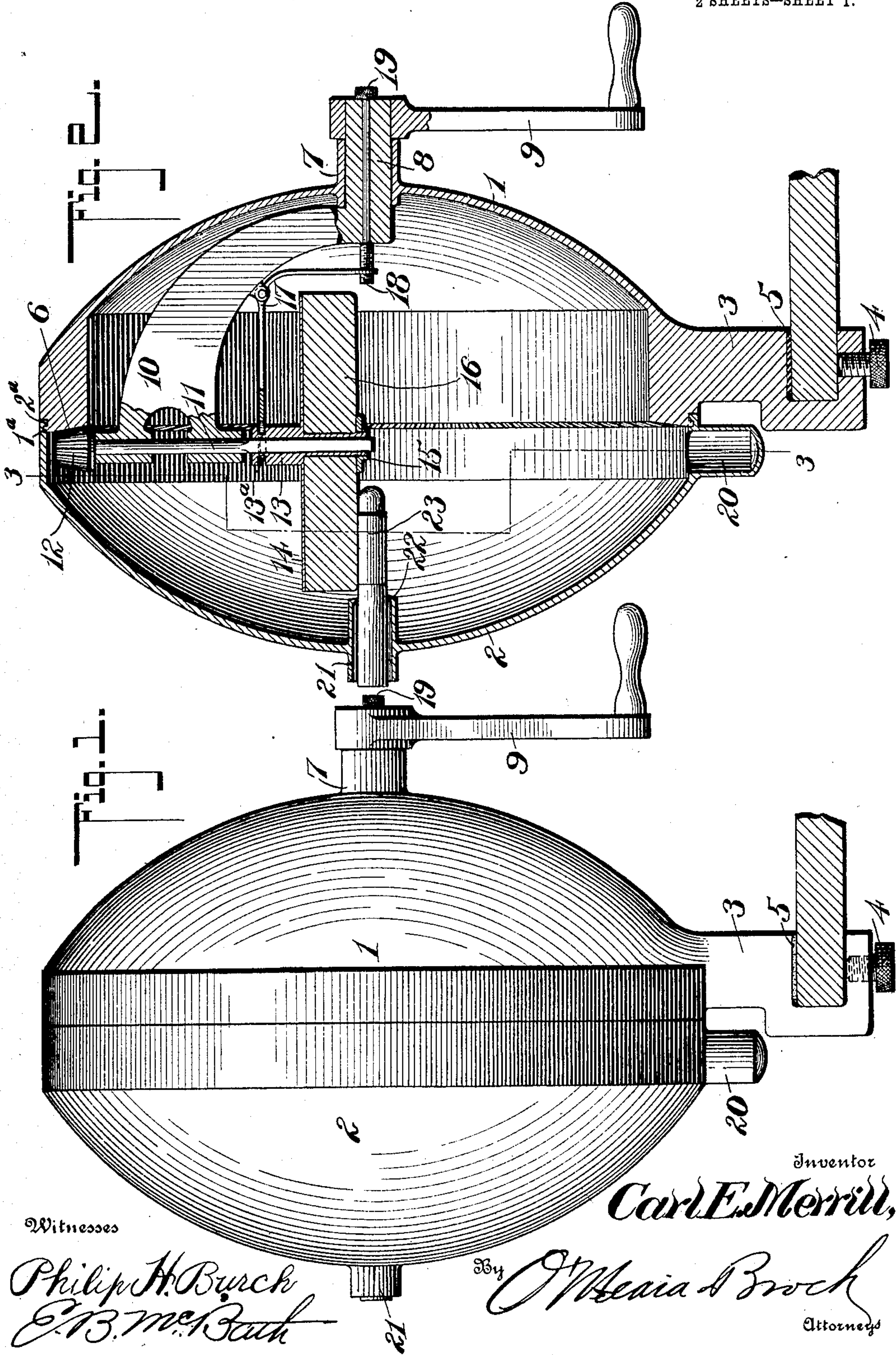


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913,414.

Patented Feb. 23, 1909.
 2 SHEETS—SHEET 1.



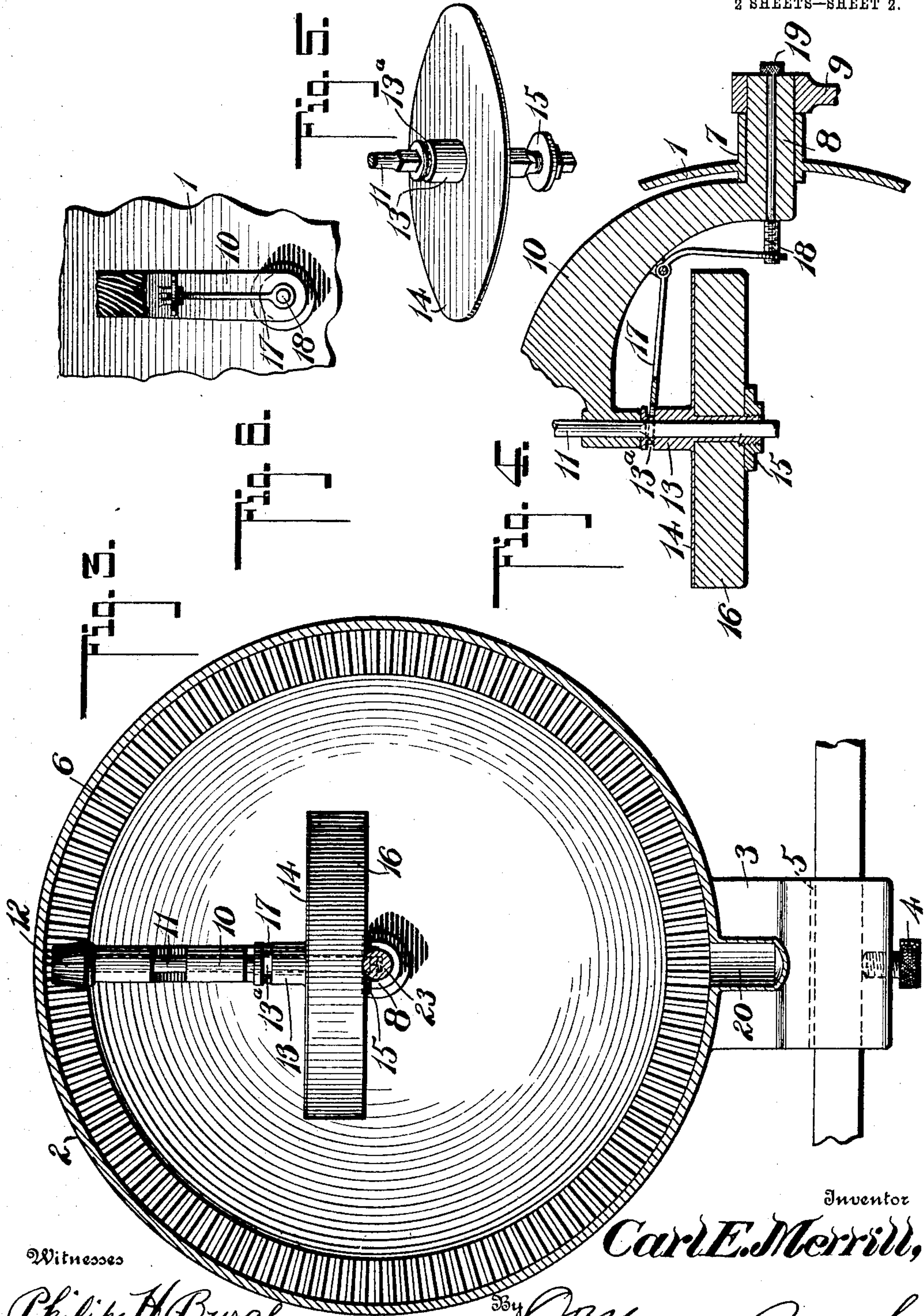
Witnesses
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CARL E. MERRILL, OF NASHUA, NEW HAMPSHIRE.

DEVICE FOR POLISHING BRASS.

No. 913,414.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed February 4, 1908. Serial No. 414,206.

To all whom it may concern:

Be it known that I, CARL E. MERRILL, a subject of the King of Great Britain, residing at Nashua, in the county of Hillsboro and State of New Hampshire, have invented a new and useful Improvement in Devices for Polishing Brass, of which the following is a specification.

This invention relates to a device for polishing brass plugs used in telephone exchanges, and while designed for this especial purpose may also be used for polishing any small article, by making it in the proper size for receiving and holding the article to be operated upon.

The invention consists of the novel features of construction hereinafter described, pointed out in the claims and shown in the accompanying drawings in which—

Figure 1 is an exterior view showing the device in elevation. Fig. 2 is a transverse section taken centrally through Fig. 1 upon its minor axis. Fig. 3 is a sectional view upon the irregular line 3—3 of Fig. 2, a polishing disk being shown in full elevation. Fig. 4 is a detail sectional view showing in side elevation means for raising and lowering the polishing disk, the disk being shown in section. Fig. 5 is a detail perspective view of means for holding a disk. Fig. 6 is a face view of the adjusting mechanism shown in Fig. 4, the disk and disk holding means being omitted and a bracket arm being broken away.

In constructing the device I employ an oval shaped casing divided into two sections 1 and 2 which are fitted together in any desired manner so that they may be conveniently detached. The section 1 is provided at its lower edge with a bench clamp 3 secured to a bench or table by the usual set screw 4 and faced with rubber or other soft material 5 to prevent injury to the surface of a table top. The section 1 is also provided around its rim with a gear 6. Section 1 is also provided centrally with a sleeve 7 in which is journaled a shaft 8 having connected thereto a handle 9. Within the casing the shaft 8 carries an upwardly and inwardly curved bracket 10 in the inner end portion of which is journaled vertically a shaft 11 which at its outer end carries a bevel pinion 12 which travels upon and meshes with the circular gear 6. Below the arm 10, reference being had to the position of the arm

in the drawings, the shaft 11 is squared and a sleeve 13 is mounted to slide thereon and this sleeve carries midway its ends an integral plate 14. The lower end of the sleeve 13 has a nut 15 threaded thereon. Upon the sleeve 13 is placed a polishing disk 16 of buffer cloth or any other suitable material which disk is held between the plate 14 and the cap 15. The sleeve 13 is also grooved above the plate 14 as shown at 13^a and an angled lever 17 is pivoted at the angle to the inner side of the bracket arm 10. One end of this lever 17 is bifurcated and the bifurcated end rests loosely in the groove 13^a of the sleeve 13, while the other end is suitably apertured to receive a partially threaded rod 18, the smooth portion of which passes loosely through the shaft 8 and carries at its outer end a milled head 19.

The section 2 of the casing is provided at its lower edge with a downward extension 20 which forms a dust cap, and centrally carries an inwardly and outwardly extending sleeve 21 provided with a gripping flange 22 at its inner end to hold a plug 23 to be polished. The disk 16 bears against the side of the plug and by rotating the handle 9 the bracket 10 is revolved about the center of the casing, carrying the disk 16 about the circumference of the plug 23 and at the same time the plug will have a rotary movement upon its own axis by reason of rotation of the shaft 11 due to the travel of the pinion 12 on the gear 6. By turning the rod 18 the lever 17 can be swung upon its pivotal point thus raising or lowering the sleeve 13 and decreasing or increasing the pressure of the disk upon the plug, as may be desired. I prefer to secure sections 1 and 2 together by providing them with interlocking tongues or flanges 1^a and 2^a, the tongues 2^a carried by the section 2 slipping within the tongues or flanges 1^a when the sections are brought together and one of them given a slight rotation with respect to the other, or any other convenient manner of securing them may be adopted.

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

1. A device of the kind described comprising a sectional casing, plug holding means carried by one section of the casing, a bracket arm carried by the other section, said arm being revoluble about the plug, a

shaft carried by the inner end of said arm, a polishing disk carried by the shaft and engaging the plug, and means for imparting rotation to said shaft.

5 2. A device of the kind described comprising a casing, means for holding a plug within the casing, a shaft journaled centrally in the casing, a bracket arm carried by said shaft, a second shaft journaled in said
10 arm, a handle upon the first mentioned shaft, a polishing disk adjustably supported upon the second mentioned shaft, said polishing disk bearing upon the plug, means operable from without the casing for giving a
15 sliding movement to the polishing disk upon its shaft and means for rotating said shaft during revolution of the bracket arm.

3. A device of the kind described comprising a sectional casing, said sections fitting
20 together, a circular gear formed upon one of

said sections and within the casing, a shaft centrally mounted in said section, a bracket arm carried by said shaft, a second shaft mounted in the bracket arm, a pinion on said shaft meshing with the circular gear, 25 a slidable sleeve on said shaft, a disk of polishing material carried upon said sleeve, an angled lever having one end in engagement with the sleeve and sliding the same upon the shaft when the lever is rocked, 30 a rod passing longitudinally and loosely through the first mentioned shaft and having a threaded portion working through said lever, and means carried by the other section of the casing for holding a plug in 35 position to be engaged by said disk.

CARL E. MERRILL.

Witnesses:

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