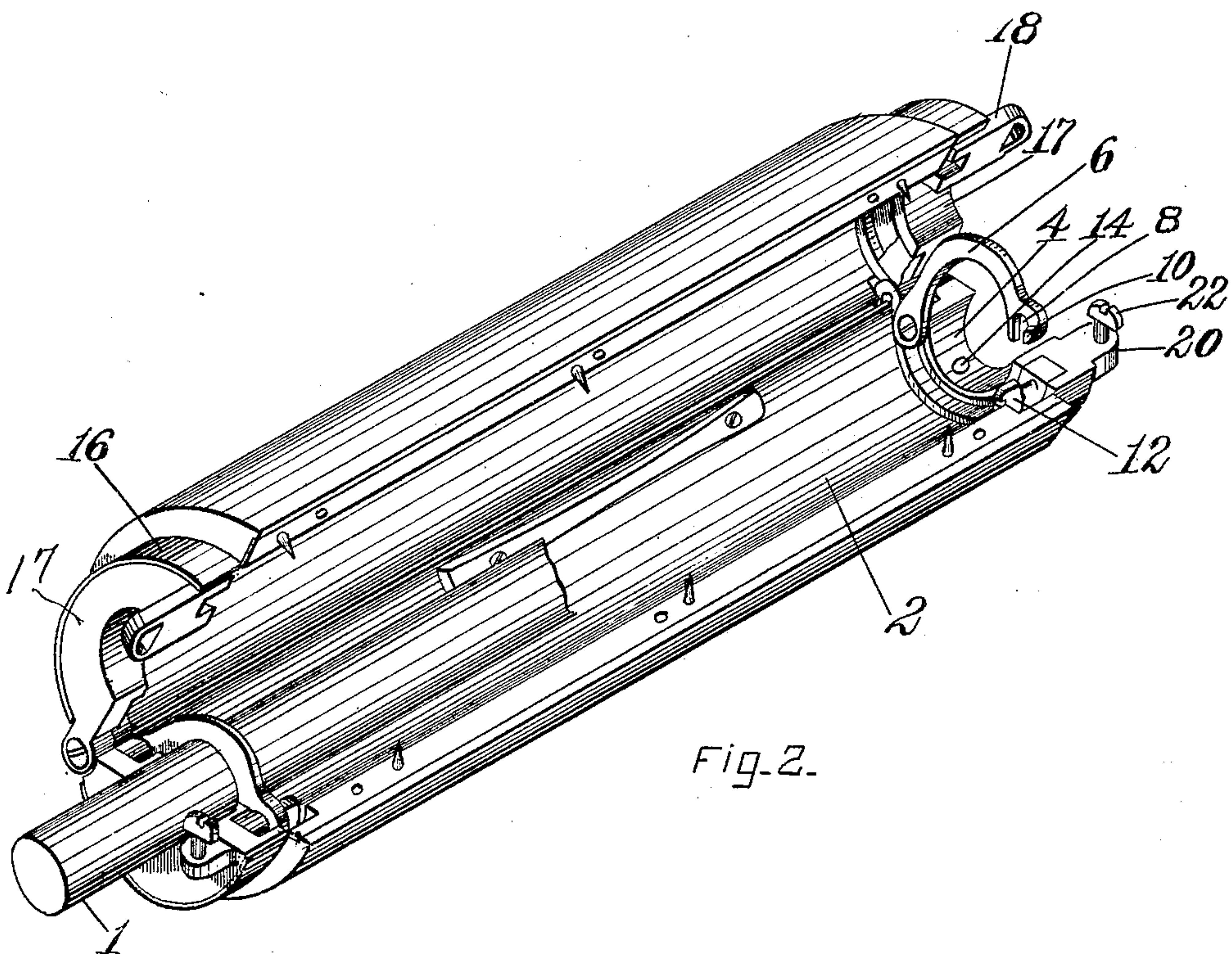
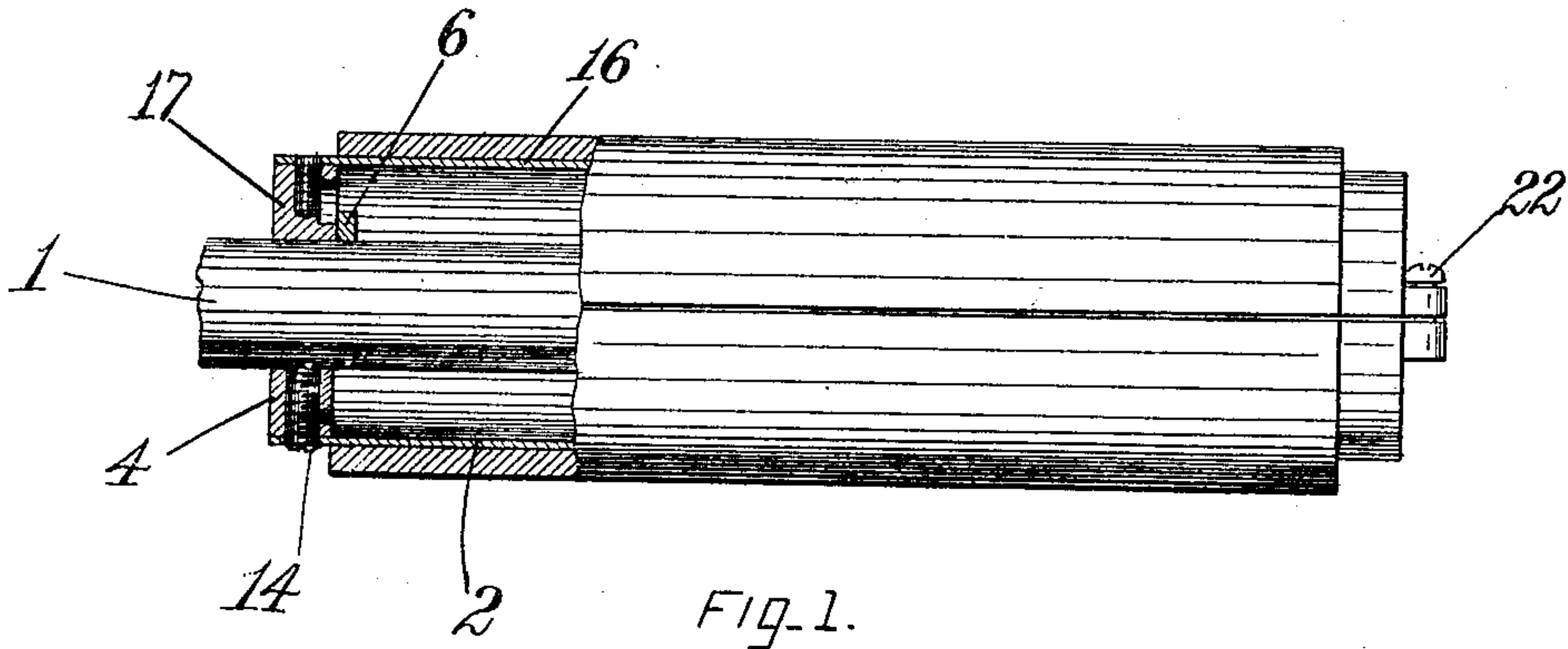


J. H. HODSKINSON.
 ROTARY ABRADING DEVICE.
 APPLICATION FILED JULY 8, 1907.

917,068.

Patented Apr. 6, 1909.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JABEZ H. HODSKINSON, OF SALEM, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

ROTARY ABRADING DEVICE.

No. 917,068.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed July 8, 1907. Serial No. 382,743.

To all whom it may concern:

Be it known that I, JABEZ H. HODSKINSON, a citizen of the United States, residing at Salem, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Rotary Abrading Devices, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to rotary abrading devices and more particularly to buffing rolls such as are commonly employed in the manufacture of boots and shoes and in other arts.

Buffing rolls are commonly secured to rotary shafts journaled in suitably spaced bearings between which the rolls are mounted. There is at times occasion for detaching a roll from its supporting shaft, for example when it is desired to renew the felt covering with which such rolls are equipped.

An object of the present invention is to provide a buffing roll which may be removed from its supporting shaft without disturbing said shaft in its bearings.

To this end the present invention contemplates the provision of means for securing a buffing roll to a supporting shaft, said means being so constructed and arranged as to permit the roll to be removed from the shaft by movement transverse to said shaft.

The invention is herein shown embodied in a sectional buffing roll of the type in which one section is arranged to be rigidly secured to a supporting shaft and a second section is pivotally connected to the fixed section.

In the present embodiment of the invention, the fixed section is provided at each end with a clamp arranged to extend over the shaft and to hold said section in position thereon. Each clamp is arranged for movement transverse to the shaft to permit the transverse removal of said section and is provided with means for holding it in its operative position in which it retains the section upon the shaft.

Other features of the invention will be hereinafter described and defined in the claims.

In the drawings, which illustrate a buffing roll constituting one embodiment of the invention,—Figure 1 is a view in elevation of said roll with parts in section; Fig. 2 is a per-

spective view showing the roll sections in open position.

Referring to the drawings, 1 represents a supporting shaft upon which the roll hereinafter described is mounted. A section 2 of the roll is provided at each end with a semi-circular block 4 secured thereto, the inner face of said block conforming to the transverse curvature of the shaft. Pivotaly mounted upon each block 4 is a curved clamp 6 arranged to extend over the shaft and to hold the section 2 in position upon said shaft. Each clamp 6 is arranged for movement transverse to the shaft and is provided at its free end with an elongated slot 8 and a shoulder 10 at one side of the slot. A screw 12 is inserted in each block 4 in such position that the slot 8 of the corresponding clamp 6 may receive the shank of said screw. Each screw 12 is provided with an elongated head and may be turned to bring said head into engagement with the shoulder 10 to hold the clamp 6 from outward movement. Each block 4 is provided with a set screw 14, which may be forced against the shaft 1, and by means of which the section 2 may be rigidly clamped upon said shaft.

A movable section 16 is provided with blocks 17, similar to the blocks 4, and hinged thereto as shown in Fig. 2. Both the section 2 and the section 16 are covered with a layer of felt and in their closed position they form a cylindrical cover-supporting surface. The movable section 16 is provided at each end with a projection 18 in which is formed an elongated opening. The fixed section 2 is formed with a projection 20 at each end in line with the projection 18 and screws 22 are inserted in the projections 20 in position to enter the openings formed in the projections 18. The screws 22 are provided with elongated heads which coöperate with the openings in the projections 18 to hold the roll sections in closed position.

In the use of the buffing roll shown, the fixed section 2 is secured to the shaft 1 by swinging the clamps 6 into their operative positions, and locking them by means of the screws 12. The set screws 14 are adjusted to force the clamp 6 into firm engagement with the shaft, so that the fixed section 2 is rigidly held at each end upon said shaft. The covering of abrading material, such as sandpaper or the like, is applied in the usual way, and

the movable section 16 brought into closed position and locked in said position by the screws 22. In the open position of the roll sections the section 2 is retained upon the shaft by the clamps 6. Whenever it is desired to remove the roll from the shaft, it is necessary merely, after opening the roll, to turn the screws 12 to release the clamps 6. As will be obvious from Fig. 2, the roll may then be removed transversely from the shaft. When the roll is open, the clamps 6 may be swung to one side sufficiently far to permit removal of the fixed section of the roll.

It will be observed that the means shown for holding the section 2 upon its supporting shaft not only permits removal of the roll without disturbing the shaft in its bearings, but also permits the roll to be adjusted circumferentially about the shaft. This adjustment is particularly desirable where a plurality of rolls are mounted upon the same shaft, and it is desired to balance the shaft so that it will run smoothly. With the arrangement shown, a roll may be adjusted circumferentially about the shaft so that it will balance another roll mounted upon the same shaft, the running of the shaft being in this way improved.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. A rotary abrading device, having in combination, a plurality of sections pivotally connected and arranged to form a cover supporting surface, means for securing one of said sections to a supporting shaft constructed to permit removal of said section by movement transverse to the shaft and cooperating locking devices on the sections arranged to secure the sections together.

2. A rotary device for sustaining in working position a cover of abrading material having, in combination, a plurality of pivotally connected sections, a clamp upon one of said sections for detachably securing the same to a supporting shaft for removal therefrom in a direction transverse to said shaft, and a pivotal locking means for said clamp.

3. A rotary device for sustaining in working position a cover of abrading material, having, in combination, a plurality of pivotally connected longitudinal sections arranged to receive the ends of the cover between them, means for retaining the sections in closed position, and means for securing one of said sections to a supporting shaft constructed to permit application and removal of said section by movement transverse to the shaft and arranged to permit adjustment of said section circumferentially about the shaft.

4. A rotary abrading device, having, in combination, a section constructed for engagement with a supporting shaft, a clamp for holding said section upon the shaft pivotally mounted upon said section for movement transverse to said shaft, means for retaining said clamp in operative engagement with the shaft, a second section pivotally connected to the first-named section and constructed to form with said section a cover-supporting surface and means for retaining the sections in closed position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JABEZ H. HODSKINSON.

Witnesses:

BERNARD BARROWS,
ALLAN H. BARROWS.