

No. 803,657.

PATENTED NOV. 7, 1905.

O. ZSCHOCKELT.  
COLLECTOR POLISHER.  
APPLICATION FILED MAR. 31, 1905.

Fig. 1.

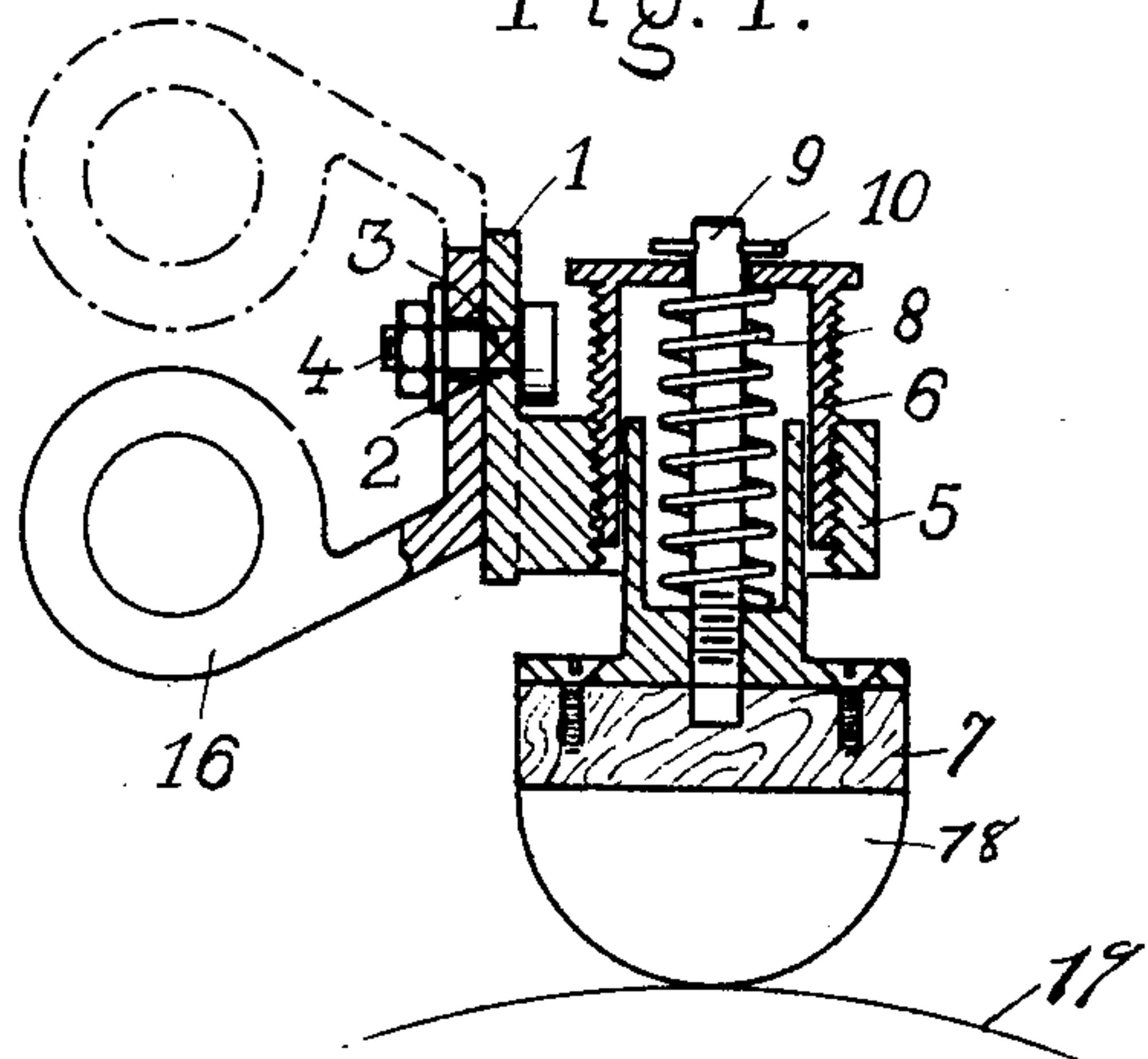


Fig. 3.

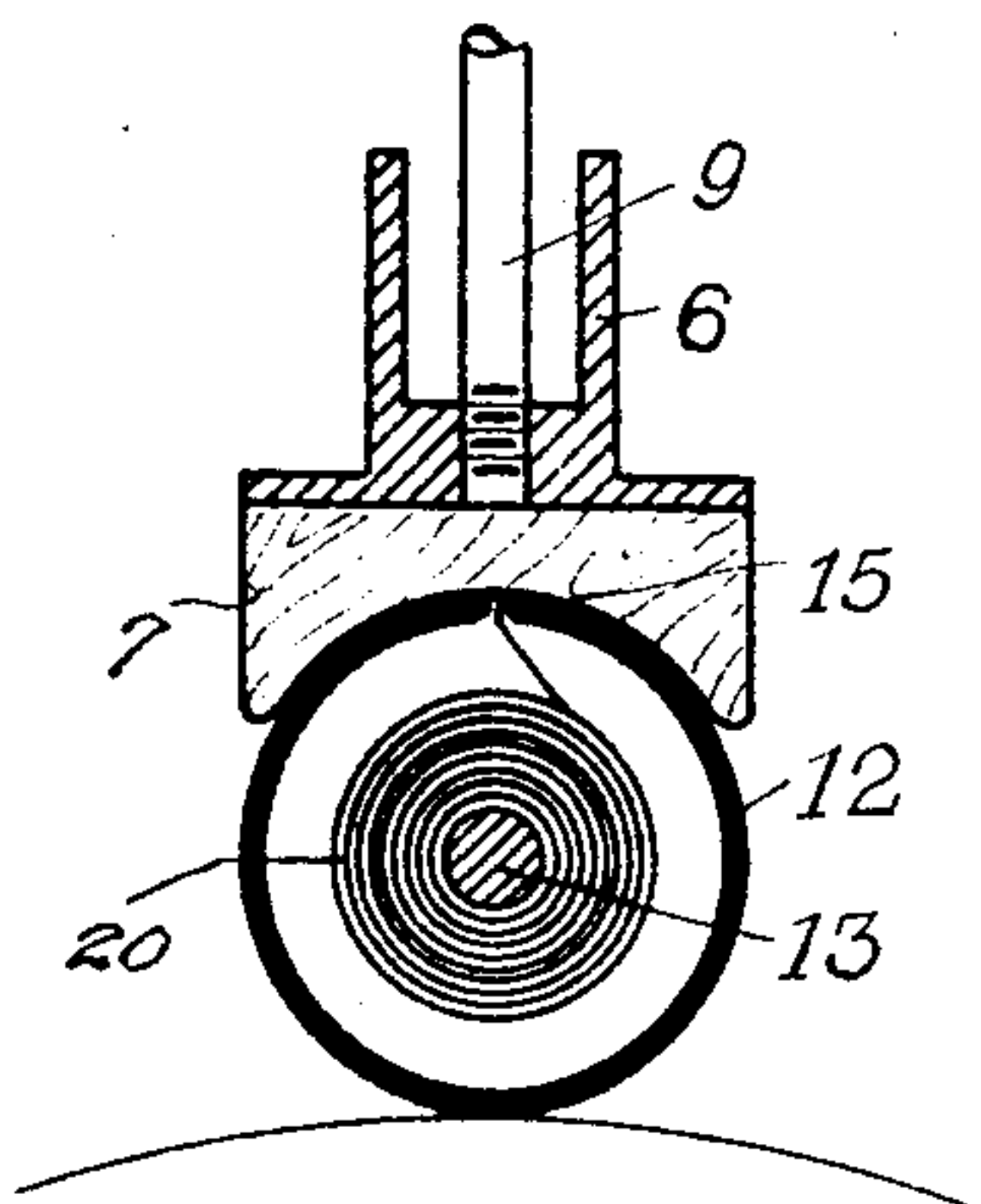


Fig. 2.

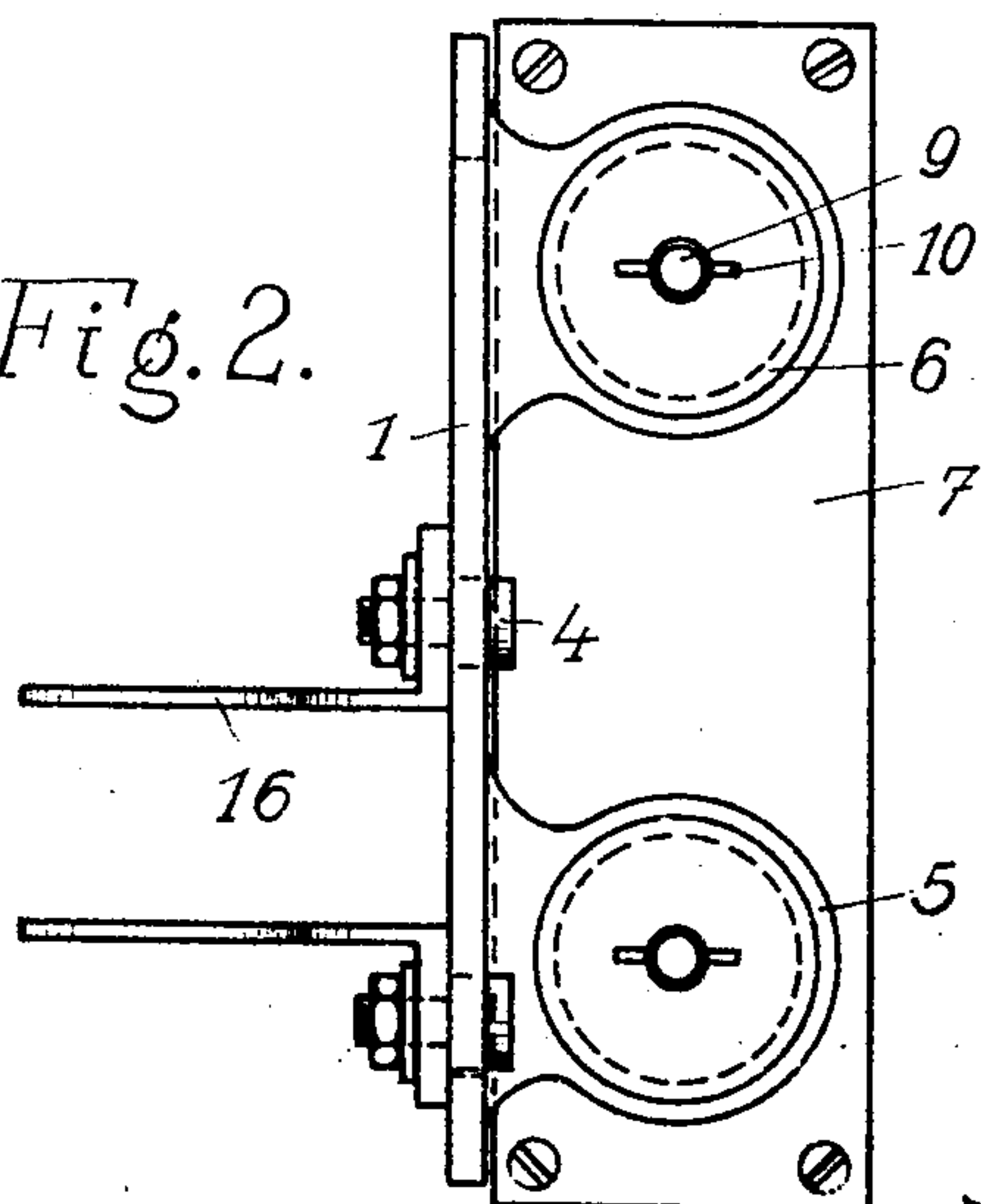
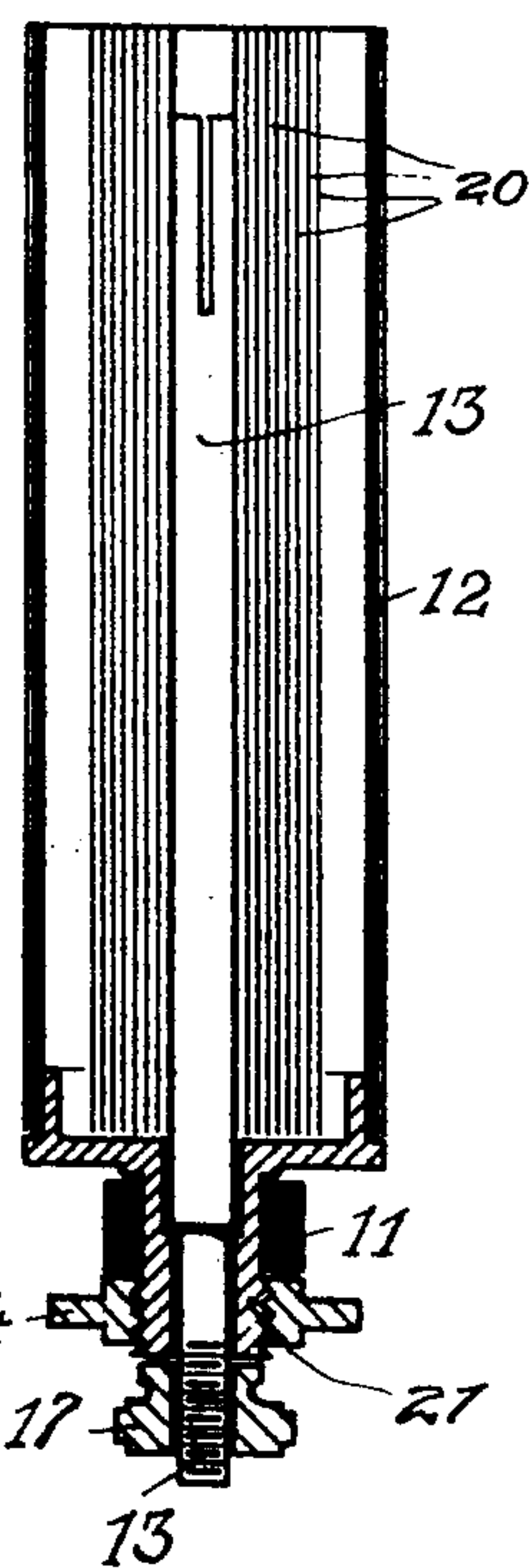
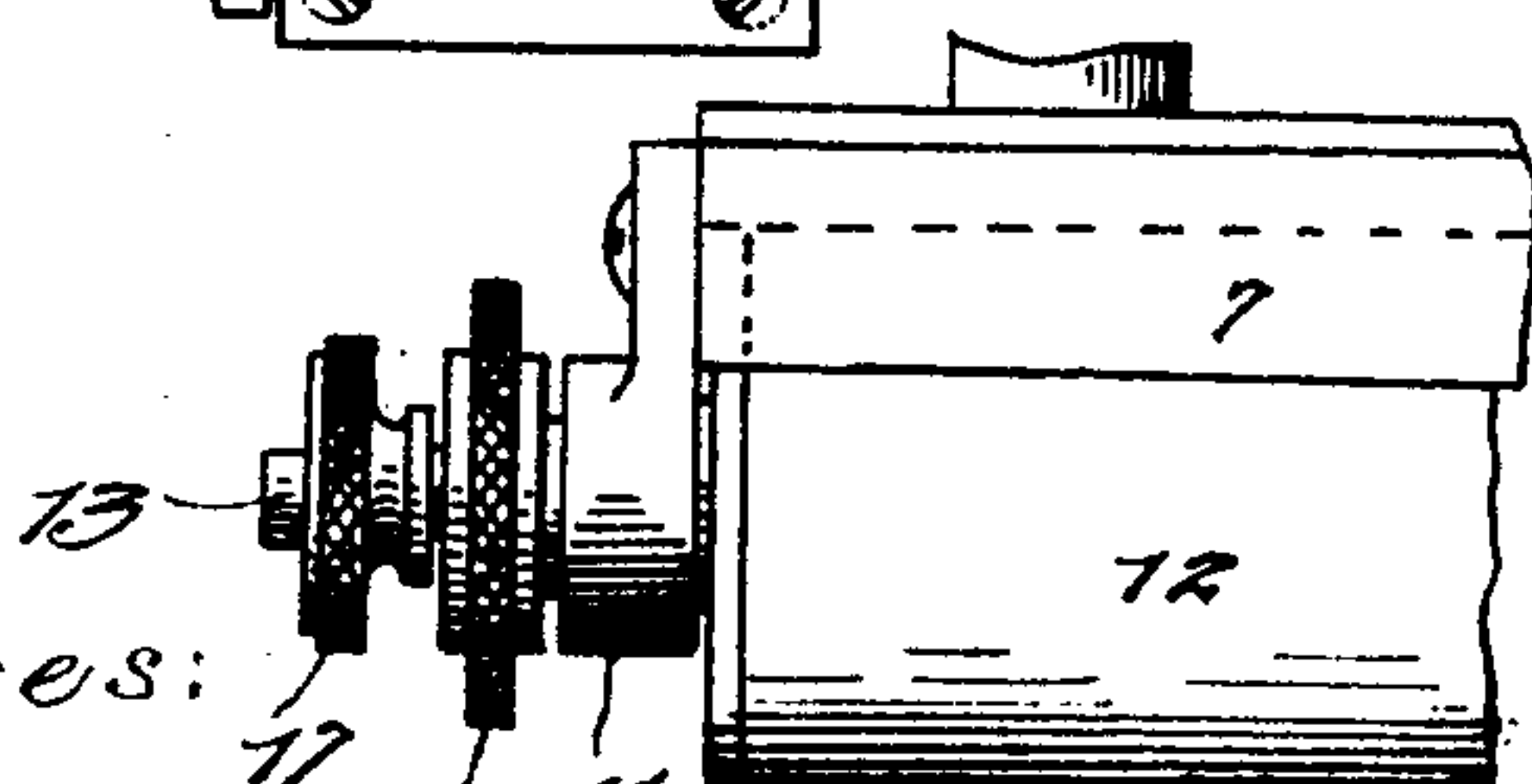


Fig. 4.

Fig. 5.



Witnesses:

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By

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# UNITED STATES PATENT OFFICE.

OSCAR ZSCHOCKELT, OF DRESDEN, GERMANY.

## COLLECTOR-POLISHER.

No. 803,657.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed March 31, 1905. Serial No. 253,174.

*To all whom it may concern:*

Be it known that I, OSCAR ZSCHOCKELT, a subject of the German Emperor, residing at Dresden, Germany, have invented certain new and useful Improvements in Collector-Polishers, of which the following is a specification.

The present invention has reference to improvements in collector polishers or smoothers, and relates more specifically to a device to be readily attached to a dynamo or motor for keeping the working surface of the collector, commutator, or contact-rings of electro-motors and dynamos smooth and bright; and the object of the invention is to provide means for the purpose indicated whereby the collector or contact rings are continually and uniformly acted upon by the polisher, thereby completely doing away with the disadvantages now experienced where no such device is used—viz., grinding in of grooves or ruts into the working surfaces and destructive sparking owing to the worn-off metal particles flying about and accumulating under the contact-brushes.

In order to make my invention more readily understood, I will now describe it with reference to the accompanying sheet of drawings, Figure 1 of which represents a vertical sectional elevation of the new device. Fig. 2 is a plan view of same. Fig. 3 is a vertical sectional elevation through part of a modification. Fig. 4 is a horizontal sectional elevation of the modification according to Fig. 3; and Fig. 5 is a front elevation of a fragment of the modification.

Referring more particularly to Figs. 1 and 2, to the plate 1, having slots 2 for receiving the square parts 3 of the bolts 4, are secured in suitable manner the sockets 5, in which threads the outer, upper half of the telescoping casing 6. The two casing-sections are adjustably held more or less extended by means of a helical spring 8, encircling a rod 9, the lower end of which threads into the bottom part of the casing and the upper end of which is prevented from sliding through the guide-hole in the top plate of the casing by means of a cross-piece 10. To the lower inner casing part is secured in suitable manner a block 7, carrying the polishing medium 18, preferably emery-cloth, with suitable backing. The device is secured to the motor or dynamo by means of the hangers or yokes 16, which are clamped to the plate 1 by means of the bolts 4, as clearly shown in Figs. 1 and 2. These yokes are slipped over a stationary part of

the machine, preferably one of the arms supporting the brush-holder yokes, and are adjustably secured thereto by means of screws or in other suitable manner. According to the distance from the collector-surface 19, the yokes 16 may be swung into one of the two positions shown in solid and dotted lines in Fig. 1.

By adjusting the pressure of the spring 8, by turning the rod 9 one way or the other, the force with which the polishing-surface 18 shall bear upon the collector-surface can be regulated. The slots 2 in the plates 1 admit of longitudinal adjustment.

In Figs. 3 and 4 is shown a constructional modification of the described device, inasmuch as in this construction there is provided in place of the polishing medium 18, as described, a roller 12, containing a spirally-wound supply-roll of polishing-cloth 20 for the purpose of easily renewing the worn-out portion of the emery or the like cloth without being forced to detach the whole or part of the apparatus for this purpose.

The roller 12 is open toward one end and secured, by means of a clamping-ring 11, to the hollowed-out bottom part of block 7 of the telescoping-casing 6. The spindle 13 carries the wound-up supply of polishing-cloth and is reduced in diameter near its threaded end, the journal-sleeve 21 being accordingly stepped and having an outer thread to receive the nut 14. A thumb-nut 17 threads on the spindle end, as shown in Fig. 4. By this means the spindle may be rotated after nut 17 has been loosened for the purpose of unwinding the polishing-cloth and by loosening nut 14 the supply-roller 12 is freed to be rotated for successively bringing all of the surface of the exposed polishing medium into working position. The polishing-cloth 20 is drawn out through a slit 15 in the roller-wall and run clear around the roller-surface, and its forward end is secured to the roller in any suitable manner.

For putting in a new roll of polishing-cloth the nut 17 is removed from the spindle 13 and the latter withdrawn from the roller 12.

If the collector is in good running order or the dynamo runs under light load, the polisher may be lifted out of operation by simply screwing back the casing 6 without adjustment of the yokes 16.

What I claim is—

1. In collector-polishers, a telescoping carrier, a spring interposed between the tele-

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scoping sections of said carrier, means to regulate the compression of said spring, polishing material carried by said carrier, and means for securing said carrier to a part of a machine, substantially as and for the purpose set forth.

2. In collector-polishers, a telescoping carrier, a spring interposed between the telescoping sections of said carrier, means to regulate the compression of said spring, polishing material carried by said carrier, and adjustable means for securing said carrier to a part of a machine, substantially as and for the purpose set forth.

3. In collector-polishers, a rotating carrier, a supply of polishing material held on said spindle and adapted to be fed through a slit in said carrier, means for adjustably securing said rotating carrier to a part of a machine, and means for rotating said roller and said spindle independently of one another, substantially as and for the purpose set forth.

4. In a device of the character described, a body member, a polishing member, a rod on said polishing member projecting through said body member, and a spring arranged on

said rod and bearing against said body member and said polishing member.

5. In a device of the type set forth, a body member, a polishing member, a telescoping connection between said body and polishing members, one of the sections of said telescoping connection being threaded in said body member.

6. In a device of the type set forth, a body member, a polishing member, a third member threaded in said polishing member, and a rod connecting said polishing member with said third-named member.

7. In a device of the character described, a body member, a polishing member, a third member adjustably connected with said body member, and means connecting said polishing member with said third member and capable of movement independent thereof.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR ZSCHOCKELT.

Witnesses:

F. H. LEHNERS,

CHEMNITZ H. SCHILLING.