

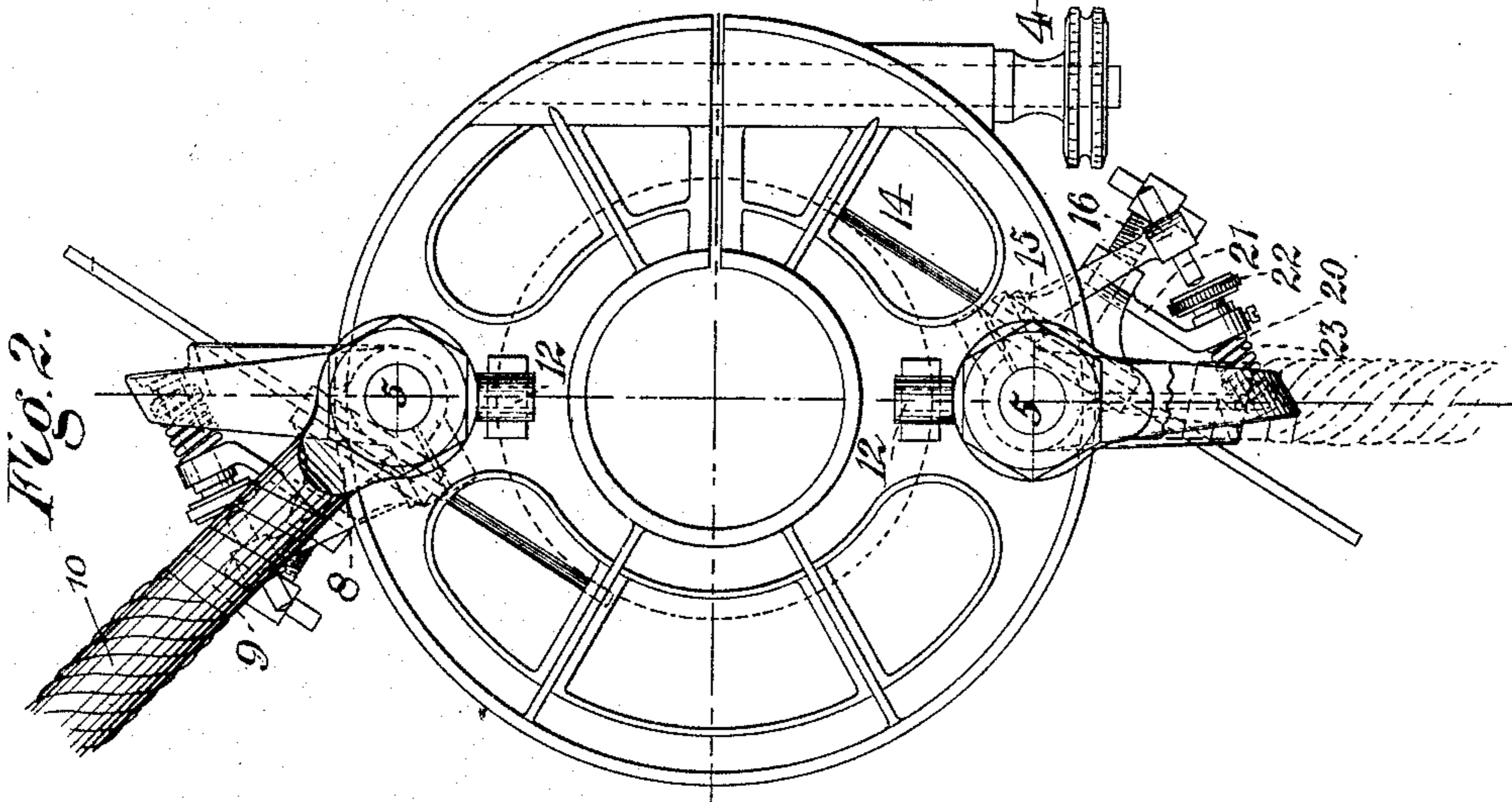
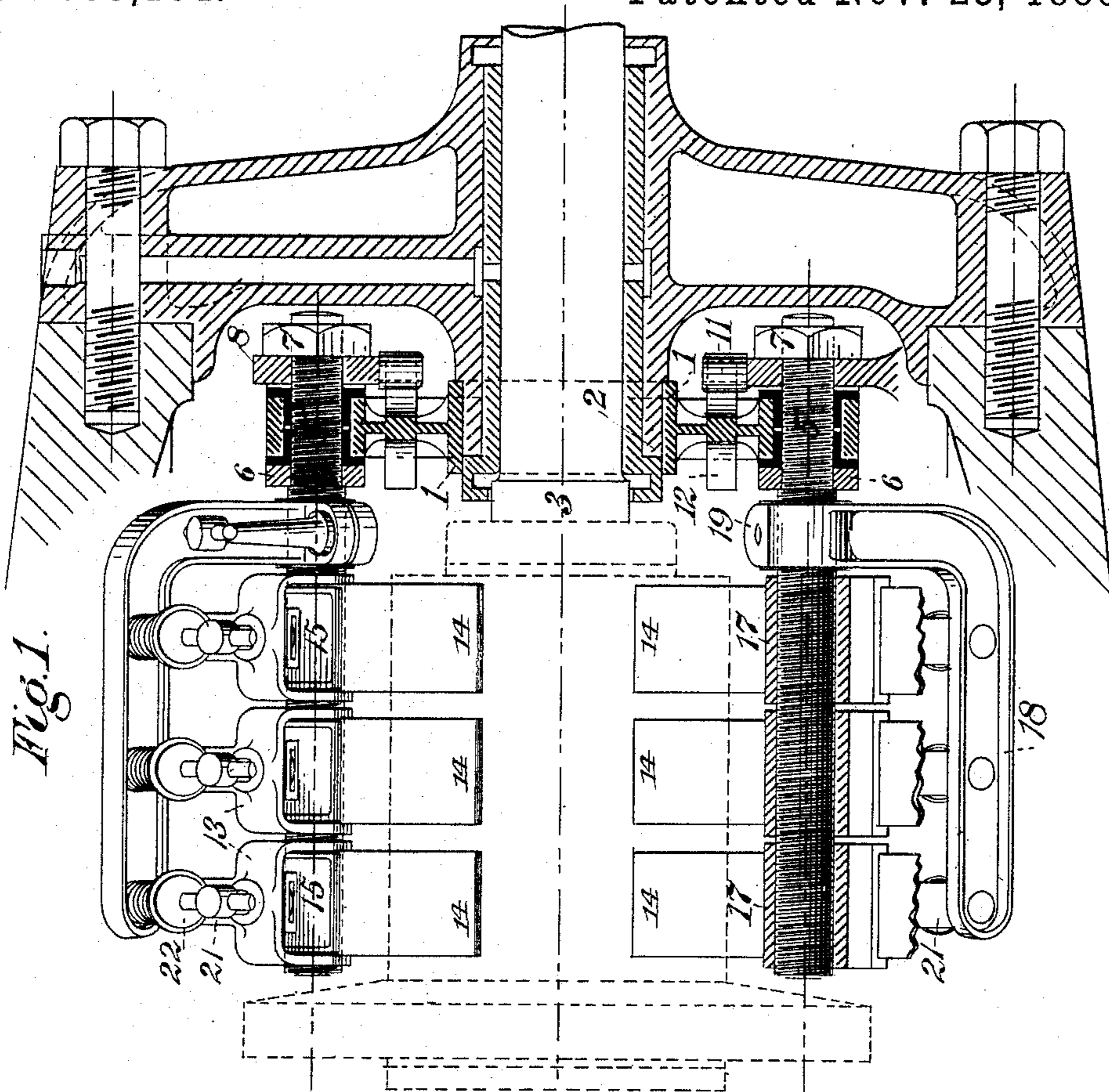
(No Model.)

A. SCHMID.

BRUSH HOLDER FOR DYNAMO ELECTRIC MACHINES.

No. 353,164.

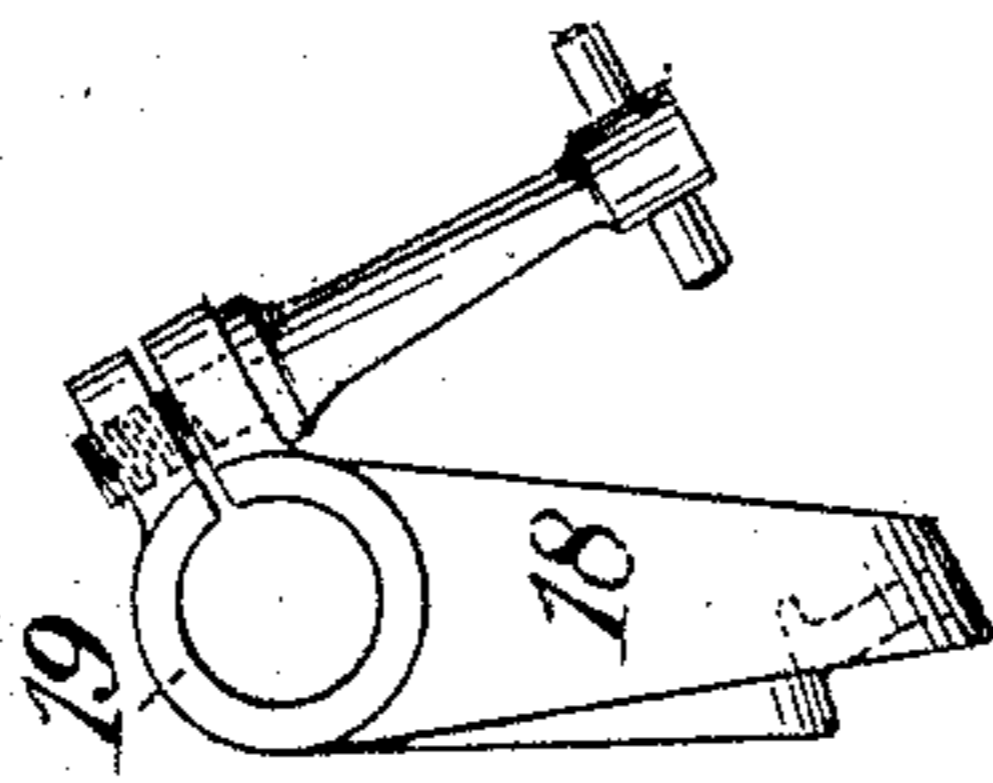
Patented Nov. 23, 1886.



WITNESSES:

E. M. Clarke
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Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT SCHMID, OF PITTSBURG, PENNSYLVANIA.

BRUSH-HOLDER FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 353,164, dated November 23, 1886.

Application filed July 29, 1886. Serial No. 209,367. (No model.)

To all whom it may concern:

Be it known that I, ALBERT SCHMID, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, a citizen of the United States, have invented or discovered certain new and useful Improvements in Brush-Holders for Dynamo-Electric Machines, of which improvements the following is a specification.

10 In the accompanying drawings, which make part of this specification, Figure 1 is a view in side elevation of my improved brush-holder for dynamo-electric machines, part being shown in section. Fig. 2 is an end elevation
15 of the same. Fig. 3 is a detail view of one of the adjusting-arms.

The invention herein relates to certain improvements in brush-holders for dynamo-electric machines, and has for its object such a
20 construction of the parts as will afford a greater contact-surface between the brush-clamps and their supporting-bars through which the current passes to the line-wires; and a further object of said invention is to
25 provide for a greater range and capability of adjustment of the several parts forming the holder.

To these ends the invention consists, in general terms, in the construction and combination of parts, substantially as hereinafter described and claimed.

In carrying out my invention a split ring or disk, 1, is placed on a bush, 2, projecting from the bearing of the shaft 3, said ring being secured thereon by the screw 4 drawing
35 together the portions of the disk around the bush. Holes or openings are formed on diametrically-opposite sides of the disk for the reception of the ends of the supporting-bars
40 5, said holes and the portions of the disk adjacent thereto being lined or faced with insulating material to prevent electrical connection between the supporting-bars and the disk.

45 The supporting-bars are provided with shoulders or collars 6 adjacent to the ends passing through the disks, said collars being drawn up tightly against one side of the disk by the nuts 7 screwing onto the ends of the
50 bars and bearing against the opposite side of the disk, or rather against one side of the

rings 8, interposed between the nut and the disk. The rings 8 are provided on one side with socketed projections 9 for connection with the conductors or mains 10, and on the opposite side with radial projections 11, which engage notches formed by lugs 12 projecting laterally from the sides of the disk, such construction serving to prevent the rings 8 from being turned around the bars, and thereby
60 loosening the nuts 7. These notched lugs 12 are formed on each side of the disk, thereby permitting of the arrangement of the brushes on either side thereof.

The yokes 13, in which the brushes 14 are
65 secured by bearing-plates 15, pivotally secured to the lower ends of the set-screws 16, are provided with threaded sockets or eyes 17, whereby they are attached to the supporting-bars 5, which are correspondingly threaded. By thus
70 threading the eyes and the supporting-bars I obtain a larger contact-surface between the two, and provision is made for the lateral adjustment of the yokes along the supporting-bars.

75 In order to effect and maintain the proper bearing of the brushes against the commutator, bent arms 18 are secured to the supporting-bars 5 by closing the split eyes 19, formed at the end of each of the bars, around the supporting-bars. Through the main portions of the arms 18, extending along parallel with the supporting-bars, are passed the threaded bolts
80 20, said bolts extending up through lugs 21, projecting rearwardly from the yokes. On
85 the ends of the bolts 20, projecting through the lugs 21, are placed nuts 22, said nuts acting in opposition to the springs 23, arranged around the bolts between the arms and the lugs. The brushes are first approximately
90 adjusted by loosening the screws holding the split eyes around the supporting-bars, and then turning the yokes and arms on each side around the supporting-bars. The split eyes are then tightly clasped around the bars, thereby firmly holding the arms in place. Then
95 the final adjustment of the brushes is effected by turning the nuts 22.

I claim herein as my invention—

1. A brush-holder for dynamo-electric machines, having in combination a split disk provided with a closing-screw, supporting-
100

bars secured to said disk, and brush-holders mounted on the supporting-bars, substantially as set forth.

5 2. A brush-holder for dynamo-electric machines, having in combination threaded supporting-bars and yokes constructed to hold the brushes, and having threaded eyes fitting over said supporting-bars, substantially as set forth.

10 3. A brush-holder for dynamo-electric machines, having in combination supporting-bars, yokes constructed to hold the brushes, and arms adjustably secured to the supporting-bars, the arms and yokes being adjustably
15 connected together, substantially as set forth.

4. A brush-holder for dynamo-electric machines, having in combination a disk provided with notched lugs, and rings connected with the electric mains, and provided with radially-projecting lugs engaging the notched
20 lugs, substantially as set forth.

In testimony whereof I have hereunto set my hand.

ALBERT SCHMID.

Witnesses:

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R. H. WHITTLESEY.