No. 776,546. PATENTED DEC. 6, 1904.

E. D. PRIEST.

BRUSH HOLDER.

APPLICATION FILED APR. 19, 1902.

NO MODEL.

Fig. 1.

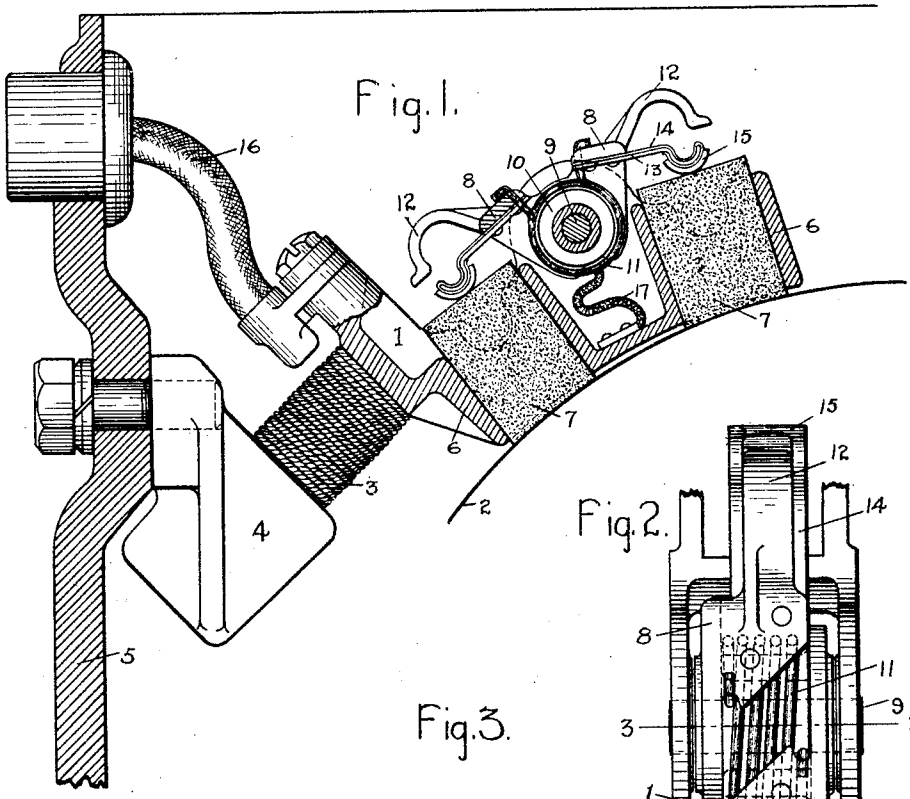


Fig. 2.

Fig. 3.

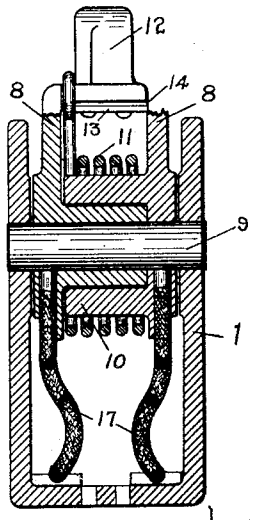
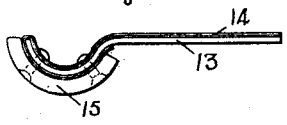


Fig. 4.



Witnesses:

Robt. C. Chapman.

Helen Alford

Inventor:

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by Allen & Davis

Atty.

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No. 776,546. Patented December 6, 1904.

UNITED STATES PATENT OFFICE.

EDWARD D. PRIEST, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

BRUSH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 776,546, dated December 6, 1904.

Application filed April 19, 1902. Serial No. 103,683. (No model.)

To all whom it may concern:

Be it known that I, EDWARD D. PRIEST, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Brush-Holders, of which the following is a specification.

This invention relates to dynamo-electric machines, and especially induction-motors for electric railways; and its object is to provide an improved brush-holder whereby two brushes arranged in tandem may be pressed against the collector-ring by a single spring.

In the accompanying drawings, Figure 1 is a sectional elevation of a brush-holder embodying my invention. Fig. 2 is a top plan view of a portion of the same. Fig. 3 is a cross-section on the line 3 3, Fig. 2; and Fig. 4 is a detail.

The holder-body 1 is suitably supported adjacent to the collector-ring 2, as by means of an insulated stud 3, projecting from a support 4, secured to the frame 5 of the machine. The holder has two sockets 6 for the carbon brushes 7, which stand radially to the collector-ring and are pressed against it by means of levers or followers 8, hinged on a common pivot-pin 9, supported in the holder. To give a long bearing to each follower within a limited space, the hub 10 of one may be sleeved on that of the other, as shown in Fig. 3. Surrounding said hubs is a helical spring 11, the ends of which are respectively engaged with the two followers, so that each follower serves as an abutment for the other, and both are pressed against their brushes with an equal force. In order to give the followers enough play, they are offset where they join their hubs, as appears most clearly in Fig. 2, leaving an open space between their opposite edges. In order to increase the range of movement, these edges may be oblique to the line of movement, but parallel with each other, as shown. Each follower has a hook 12 to serve as a finger-hold for convenience in raising it to release the brush when desired. Each follower carries a pressure-spring, which is a strip of phosphor-bronze 13, secured to the follower and provided with a laminated covering 14, of copper, in contact with the follower and with a segmental circular copper tip 15, which is secured to the end of the pressure-spring and rests on the outer end of the brush.

Current is conveyed to the brush-holder by a lead 16. A flexible conductor 17 connects each follower with the holder, and the laminated covering 14 on the pressure-spring assists in carrying the current to the brush.

This construction makes a simple compact brush-holder of large current-carrying capacity and readily assembled and repaired.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A brush-holder having sockets for two brushes, a separate follower for each brush, and a single spring acting on both followers.

2. A brush-holder having two brush-sockets in tandem, a separate follower for each brush, and a single spring acting on both followers.

3. The combination with a brush-holder body having two brush-sockets in tandem, of two followers pivoted between said sockets, and a single spring actuating both followers.

4. The combination with a brush-holder body having two brush-sockets in tandem, of a transverse pivot-pin between said sockets, two followers both hinged on said pin, and a single spring surrounding said pin and abutting against both followers.

5. The combination with a brush-holder body having two brush-sockets in tandem, of a transverse pivot-pin between said sockets, two followers hinged on said pin, the hub of one being sleeved on that of the other, and a single helical spring surrounding said hubs and having its ends engaged with said followers.

6. In a brush-holder, a pressure-spring composed of a strip of phosphor-bronze having a laminated copper covering.

In witness whereof I have hereunto set my hand this 17th day of April, 1902.

EDWARD D. PRIEST.

Witnesses:
BENJAMIN B. HULL,
HELEN ORFORD.