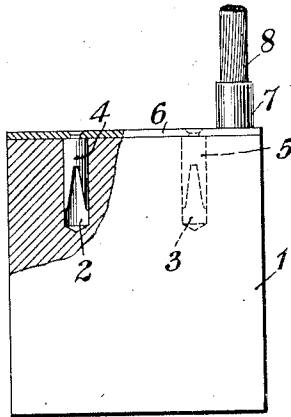


J. L. CROUSE.
COMMUTATOR BRUSH.
APPLICATION FILED FEB. 6, 1906.

1,010,118.

Patented Nov. 28, 1911.



WITNESSES:

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JOHN L. CROUSE, OF NEW YORK, N. Y., ASSIGNOR TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

COMMUTATOR-BRUSH.

1,010,118.

Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed February 6, 1906. Serial No. 299,758.

To all whom it may concern:

Be it known that I, JOHN L. CROUSE, a citizen of the United States, and a resident of New York, in the county of Kings and State of New York, have invented a new and useful Improvement in Commutator-Brushes, of which the following is a specification.

My invention relates to commutator brushes for dynamo-electric machines, and it has for its object to provide novel and improved means for securing flexible conductors thereto.

My invention is especially applicable to alternating current motors and other dynamo-electric machines of the commutator type in which thin carbon brushes are essential to the most successful operation.

The single figure of the accompanying drawing is a side view of a commutator brush embodying my invention, a portion being broken away for the sake of clearness of illustration.

A commutator brush 1, that is composed of carbon, or other suitable material, is provided, at its outer edge, with apertures 2 and 3 into which project forked or split pins 4 and 5, respectively, the prongs of which are spread apart to insure good electrical connection thereof with the walls of the recesses. The pins are riveted or otherwise secured to a plate 6 that covers the outer end of the brush and that is provided at one end with a hollow boss 7 wherein one end of a flexible conductor 8 is secured by suitable means, such as solder. The end-plate 6 serves also as a wearing piece with which the free end of a spring-pressed arm of the brush holder (not shown) may engage. It is of course understood that the pins 4 and 5 may differ in number, form and dimensions from what is here shown, it only being necessary that one or more resilient wedges be provided.

The structure herein shown and described permits of free movement of the brush in the holder guide, because none of the parts

whereby the flexible conductor is attached to the brush project beyond the lateral faces thereof.

I claim as my invention:

1. The combination with a commutator brush having one or more holes in one end, of a plate having one or more inherently expansible single-piece pins that project from the plate into the hole or holes, and a conductor secured to the plate.

2. The combination with a commutator brush having a plurality of holes in its outer end, of a plate that rests upon the outer end of the brush, inherently expansible single-piece pins that are secured to the plate and project into the holes, and a conductor secured to the plate.

3. The combination with a commutator brush having one or more holes in one end, of an end plate therefor that covers the holes, one or more inherently expansible single-piece pins that project from the plate into the hole or holes, and a conductor secured to the plate.

4. A current-collecting device comprising a carbon block having holes in one end, a metal plate having inherently resilient single-piece projections that fit into the holes and hold the plate against the end of the block, and a conductor fastened to the plate.

5. A current-collecting device comprising a carbon block having cylindrical holes in one end, a metal plate the length and width of which are substantially equal to the length and width of the top of the block, inherently expansible single-piece pins rigidly fastened to the metal plate and projecting into the holes in the block, and a conductor fastened to the plate.

In testimony whereof, I have hereunto subscribed my name this 22nd day of January, 1906.

JOHN L. CROUSE.

Witnesses:

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