

No. 670,059.

Patented Mar. 19, 1901.

W. D. POMEROY.
COMMUTATOR BRUSH HOLDER.

(Application filed Sept. 22, 1900.)

(No Model.)

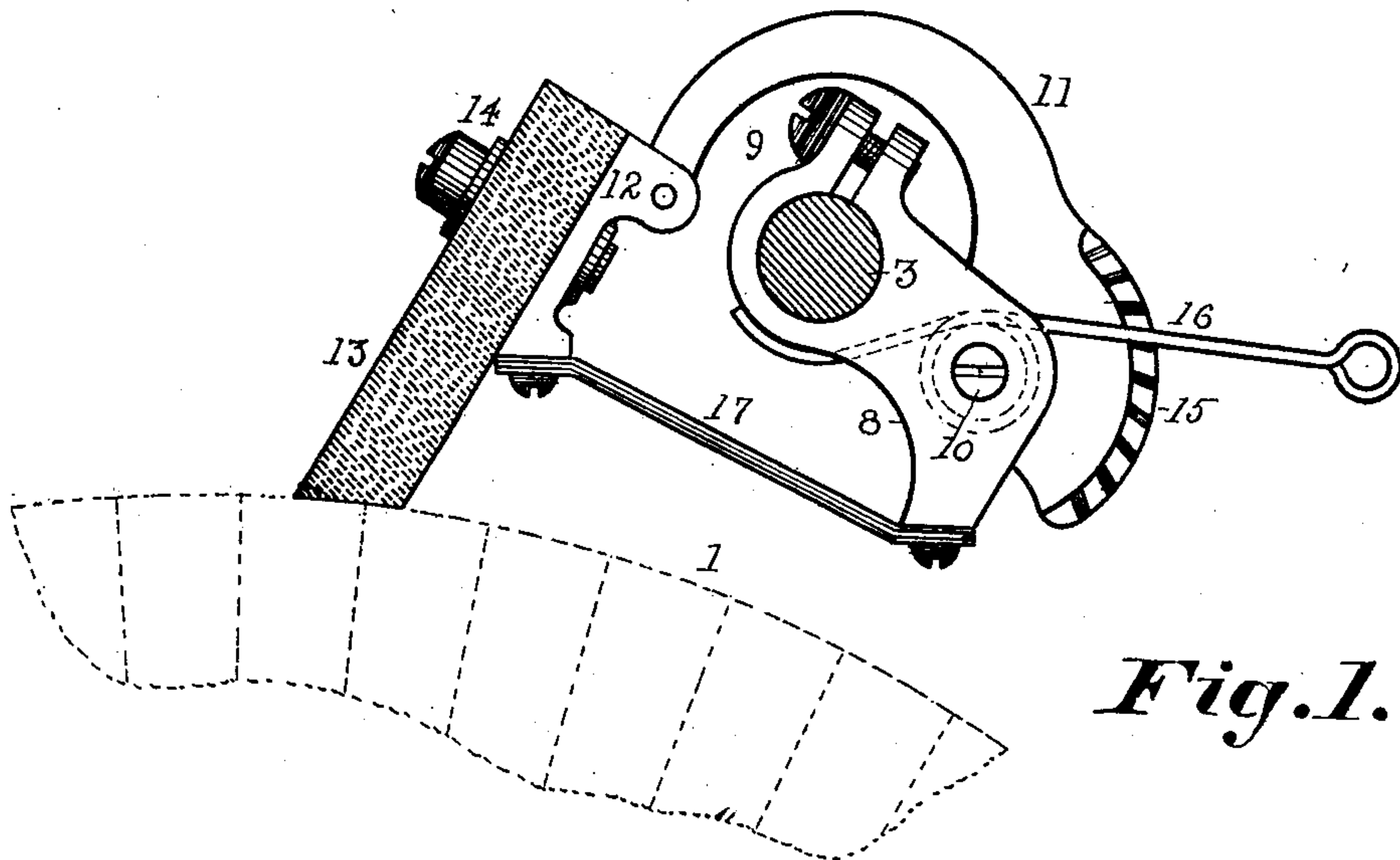


Fig. 1.

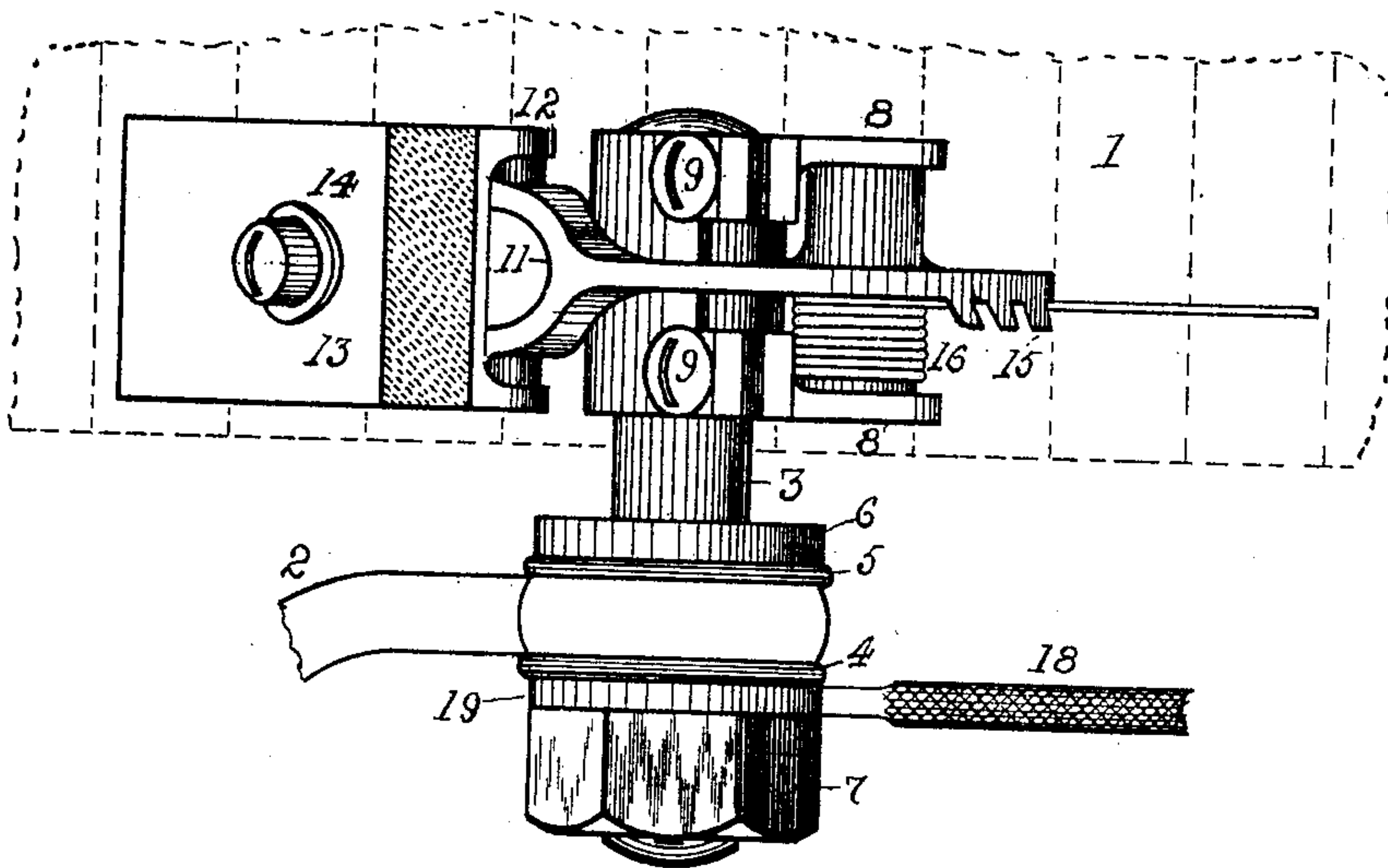


Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM D. POMEROY, OF AKRON, OHIO, ASSIGNOR TO THE AKRON ELECTRICAL MANUFACTURING COMPANY, OF SAME PLACE.

COMMUTATOR-BRUSH HOLDER.

SPECIFICATION forming part of Letters Patent No. 670,059, dated March 19, 1901.

Application filed September 22, 1900. Serial No. 30,838. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. POMEROY, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Commutator-Brush Holders, of which the following is a specification.

My invention relates to improvements in that class of brush-holders for commutators in which the holders are mounted on wrist-pins that project parallel with the armature-shaft from a ring that is mounted in a groove in the box of the armature-shaft and usually eccentric to that shaft and in a plane parallel with the plane of revolution of the commutator.

The object of my invention is to produce a new and improved brush-holder of the class designated that will be simple in construction, effective in operation, and in which the pressure of the brush on the commutator may be readily adjusted and the wear of the brush be supplied by an automatic feeding device.

To the aforesaid object my invention consists in the peculiar and novel construction, arrangement, and combination of parts hereinafter described and then specifically pointed out in the claim, reference being had to the accompanying drawings, forming a part of this specification.

In the accompanying drawings, in which similar reference-numerals indicate like parts in the different views, Figure 1 is an end elevation of my improved brush-holder, the supporting wrist-pin being shown in section; and Fig. 2, a plan of the same.

Referring to the drawings, 1 is a dotted outline of a commutator; 2, a portion of the wrist-pin-bearing ring; 3, one of the pins; 4 and 5, insulating-rings on each side of the pin-bearing ring; 6, a fixed collar on the pin, and 7 a nut that secures the pin in place. On the pin 3, which in this specification will be hereinafter termed the "finger-pivot," is secured the brush-holder body 8, which is split on one side, with projecting perforated flanges drawn together by a pair of screws 9. This brush-holder body is bifurcated at the back, and between the sides is pivotally mounted, by means of a screw 10, a tension-finger 11, on the front end of which is pivotally mounted a supporting-plate 12, to which is secured the carbon brush 13 by means of

a screw and washer 14. In practice the front end of the tension-finger is forked to secure lateral width and lightness. The rear end of the tension-finger is widened and curved on an arc of a circle of which the screw 10 is the center and has a lateral flange 15, which is notched at intervals in lines radiating from the periphery of the hub of the tension-finger. Coiled about this hub, surrounding the screw 10, is a wire spring 16, one end of which extends under the cylindrical part of the brush-holder body and the other projects backward and is arranged to engage notches in the flange 15. Connecting the supporting-plate 12 and the lower end of the brush-holder body 8 is a connecting link-blank 17, of plies of sheet metal, preferably copper, secured to each by screws, as shown, or other equivalent means. The conducting-wire 18 (shown partially covered with insulating material) is electrically united with a metallic washer on the pin 3.

In operation the pressure of the tension-finger is regulated by the wire spring 16 and is increased and diminished as the projecting end is engaged in the lower or upper notches of the lateral flange 15, while the connecting link-blank 17 insures complete electrical connection.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

An improved commutator-brush holder adapted to be mounted on a wrist-pin parallel with the armature-shaft consisting of a body arranged to be adjustably secured to said pin, a tension-finger pivotally mounted in said body, bearing at one end a pivoted supporting-plate and a carbon brush secured thereto, and having at the opposite end a notched flange and a spring-wire to engage one of said notches to press the carbon brush on the commutator, said supporting-plate and body being electrically connected, substantially as shown and described.

In testimony that I claim the above I hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM D. POMEROY.

In presence of—

C. P. HUMPHREY,
C. E. HUMPHREY.