

No. 757,357.

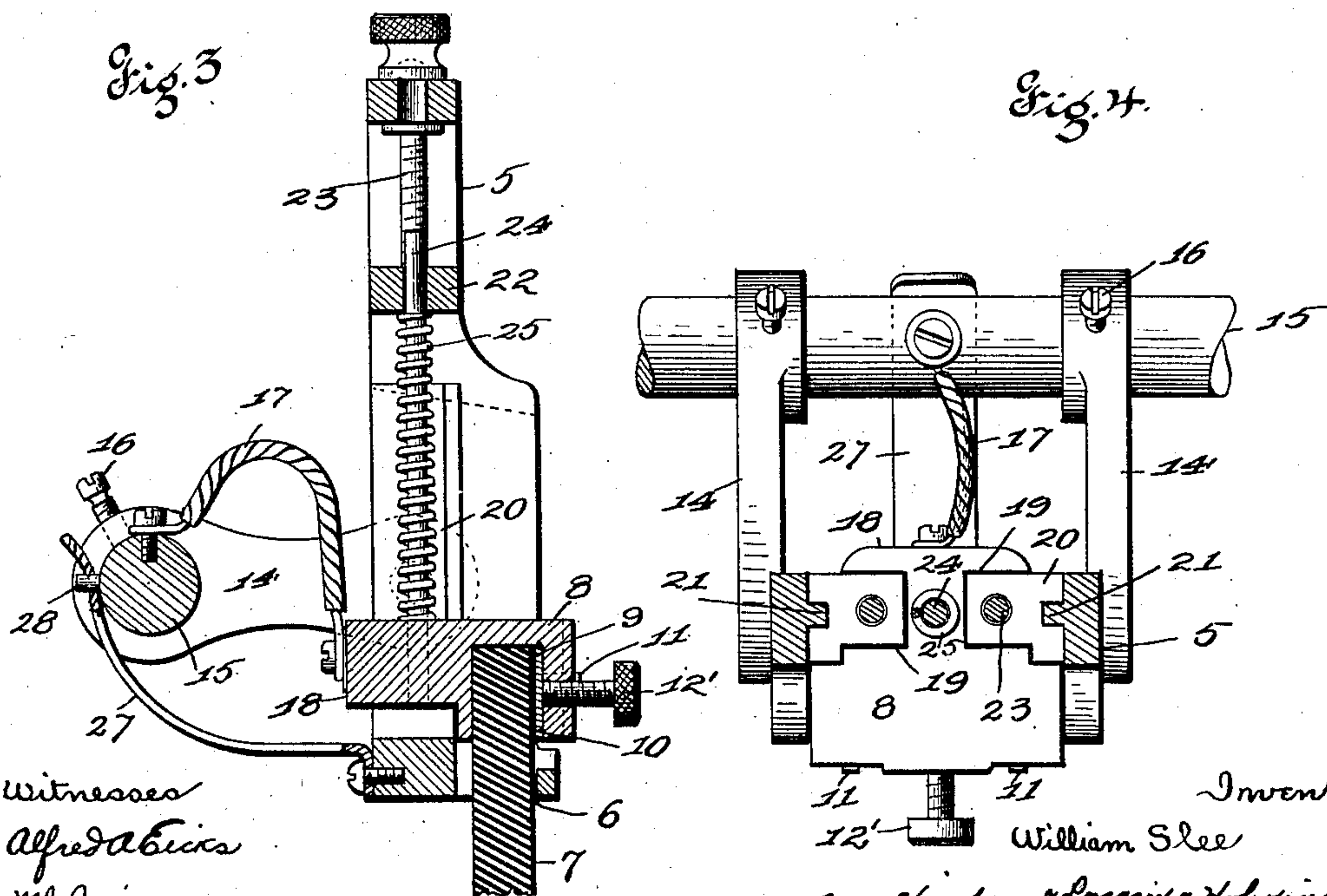
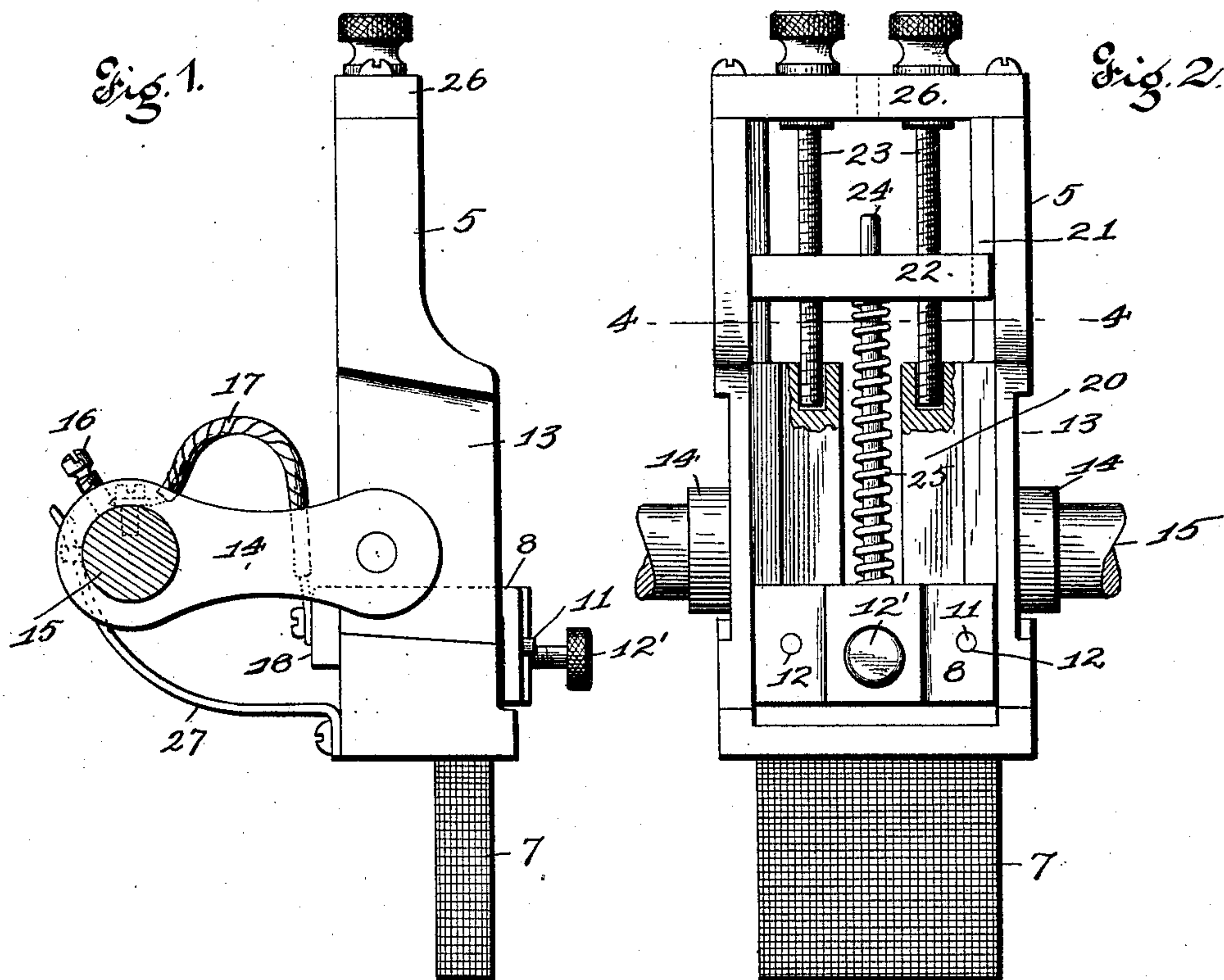
PATENTED APR. 12, 1904.

W. SLEE.


DYNAMO BRUSH HOLDER.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.



Witnesses
Alfred A. Beck
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UNITED STATES PATENT OFFICE.

WILLIAM SLEE, OF ST. LOUIS, MISSOURI.

DYNAMO BRUSH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 757,357, dated April 12, 1904.

Application filed September 8, 1903. Serial No. 172,197. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SLEE, a citizen of the United States, residing in St. Louis, State of Missouri, have invented certain new and useful Improvements in Dynamo Brush-Holders, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in dynamo brush-holders; and it consists in the novel arrangement, construction, and combination of parts, as will be fully hereinafter described and claimed.

The object of my invention is to construct a brush-holder wherein the brush is supported and brought automatically in contact with the commutator, at all times providing a perfect and unbroken contact.

A further object of my invention is to provide a holder for supporting a brush of the carbon type, the same being readily attached and adjusted to any motor or dynamo and automatically retaining the brush in close electrical contact with the commutator.

Figure 1 is a side elevation of my invention. Fig. 2 is a front view of the same. Fig. 3 is a vertical sectional view taken through the center of Fig. 2. Fig. 4 is a horizontal sectional view taken on the line 4-4 of Fig. 2.

My invention consists of a frame 5, composed of two vertical walls and a bottom section, the said bottom section being provided with an elongated slot or opening 6, through which the brush 7 is passed. The said brush 7 may be of any suitable material; but the carbon type is preferred, and it is held in a casting 8, arranged to be adjusted within said frame 5. The casting 8 is provided with the socket 9, in which is located a plate 10, having a pair of projecting trunnions 11, adapted to loosely fit within bores 12, formed in the front side of the said casting 8, and are for the purpose of retaining the plate 10 within said socket.

The purpose of the plate 10 is to grip the brush 7 by the manipulation of the thumb-screw 12' and tightly clamp said brush within the casting 8.

The frame 5 is provided with recesses 13, in which one end of the arms 14 is placed and pivotally secured to the frame 5, the opposite end of said arms 14 being held upon the rod 15. The rod 15 forms a part of the dynamo by which the usual brush is supported.

The device is mounted upon the rod 15 and adjusted to the proper position and held thereon in its proper adjusted position by the set-screws 16.

A contact-wire 17 is secured to the rod 15 and to the rear side 18 of the casting 8. The casting 8 is provided with the recesses 19, which fit over the vertical projections 20, forming part of the frame 5, and is for the purpose of allowing the casting 8 to adjust itself vertically.

On the inner surfaces of the frame 5 above the projections 20 are formed guides 21, over which the adjusting-plate 22 is mounted and adjusted within said frame 5 by means of the screws 23.

The rod 24 is secured to the casting 8, passing upwardly through the adjusting-plate 20, and around said rod between the casting 8 and plate 20 is a coil-spring 25, said spring being for the purpose of retaining the brush 7 in perfect electrical contact with the commutator.

The tension of the coil-spring 25 is regulated by the movement of the plate 22 caused by the manipulation of the screws 23. The bores in the plate 22, through which the screws 23 pass, are internally screw-threaded, and by the movement of said screws, which are loosely supported in the upper cross-bar 26, are raised or lowered, as desired, for regulating the tension of the coil-spring 25 upon the casting 8.

With a device of this construction when properly placed upon a dynamo and the brush adjusted against the commutator a perfect electrical connection is formed and the usual sparking is dispensed with, by the reason that the brush is at all times by means of its adjustable feature in contact.

When the device is placed upon the rod 15 and properly adjusted to the commutator, it is held at the desired angle by the use of the

spring 27, secured to the bottom of the frame and passed over the trunnion 28, formed on said rod 15.

Having fully described my invention, what I claim is—

1. A brush-holder of the class described, comprising a frame, arms connected to said frame, said arms supported upon the brush-rod of the dynamo, a brush-retaining casting loosely mounted within said frame, a sliding plate mounted within said frame, screws carried by said frame and passing through said plate whereby the same is raised and lowered, a spring located between said plate and the brush-retaining casting for supplying tension to said casting, a brush held within said brush-retaining casting, and means for retaining said brush in perfect electrical contact with the commutator of a dynamo, substantially as specified.

2. A brush-holder of the class described, comprising a frame, guides mounted within said frame, a casting loosely mounted within said frame and adapted to slide upon said guides, a socket formed in said casting, a plate mounted within said socket, a brush clamped in said socket by said plate, an adjusting device located in said frame for regulating the tension of the brush upon the commutator of the dynamo, electrical connection between the casting and the dynamo brush-rod, substantially as specified.

3. A brush-holder of the class described, comprising a frame, arms pivotally mounted to said frame, said frame and arms supported on the dynamo brush-rod, vertical guides lo-

cated within said frame and formed integral therewith, a brush-retaining casting slidably mounted between said guides, a clamping device located in said casting for clamping and retaining the brush in position, a sliding plate located in said frame, screws carried by said frame and passing through the sliding plate, a spring located between the sliding plate and the brush-retaining casting, its tension being imparted upon said brush-retaining casting for keeping the brush at all times in electrical contact with the commutator of the dynamo, substantially as specified.

4. A dynamo brush-holder, comprising a frame, arms pivotally connected to said frame, recesses formed in the sides of said frame whereby said frame may be tilted at the desired angle in conformity with the position of the commutator, a casting slidably mounted within the frame, a carbon brush clamped within said casting, a tension-regulating device carried by the frame, whereby proper tension is imparted to the brush, a spring carried by said frame and connected to the dynamo brush-rod for retaining the frame in its adjusted position, and a contact between the casting and the dynamo brush-rod, substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

WILLIAM SLEE.

Witnesses:

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