(No Model.)

F. A. WELLER.

BRUSH HOLDER FOR DYNAMO ELECTRIC MACHINES.

No. 428,735. Patented May 27, 1890.

Fig. 1.

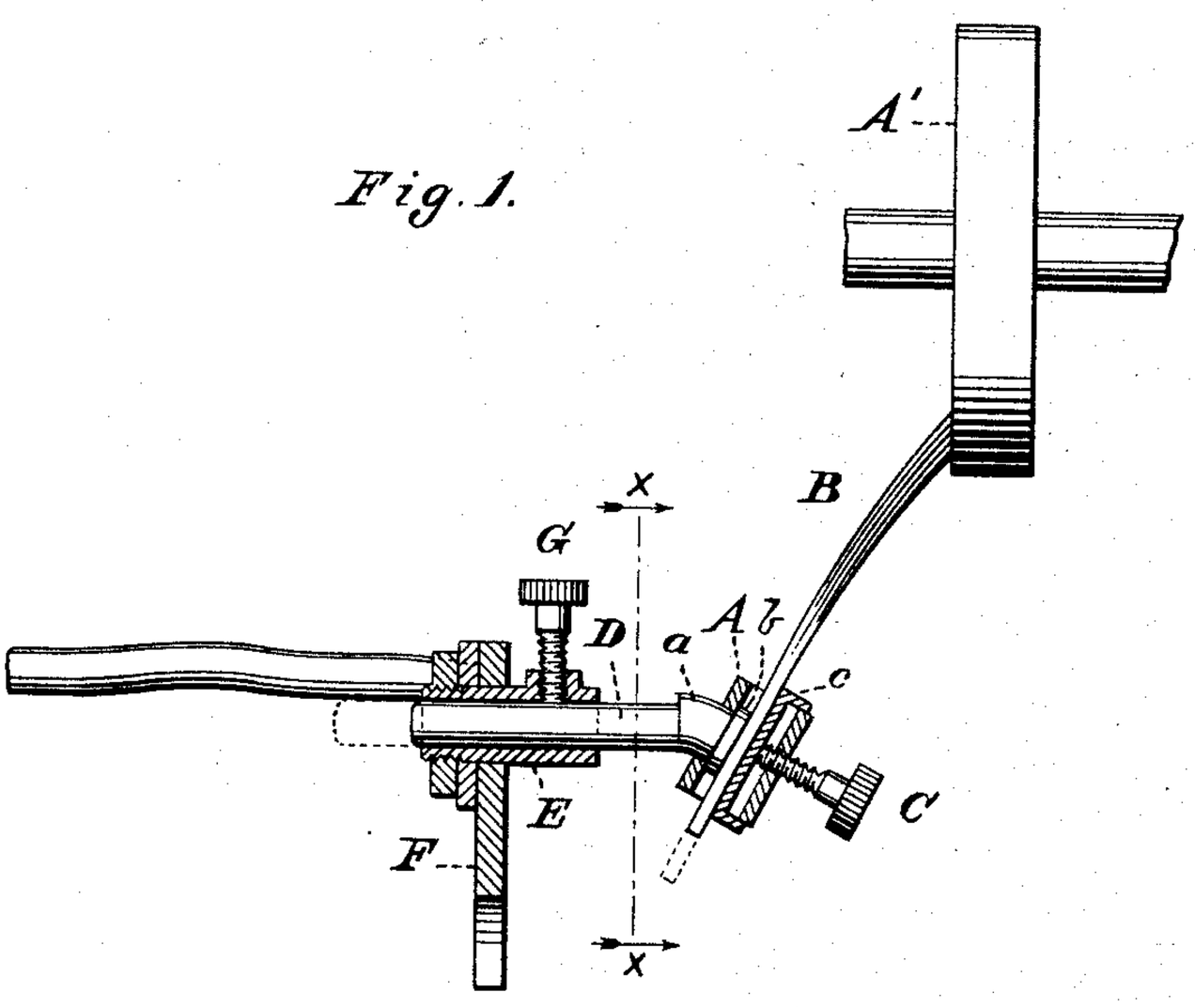


Fig. 2.

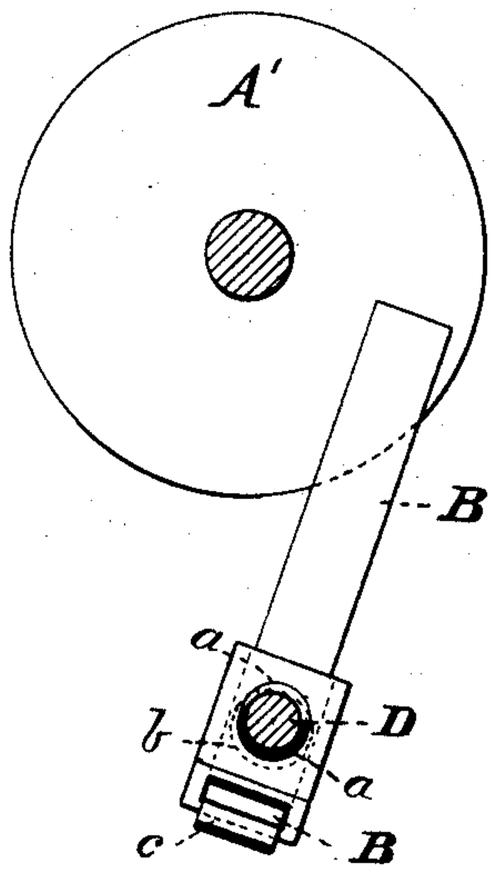
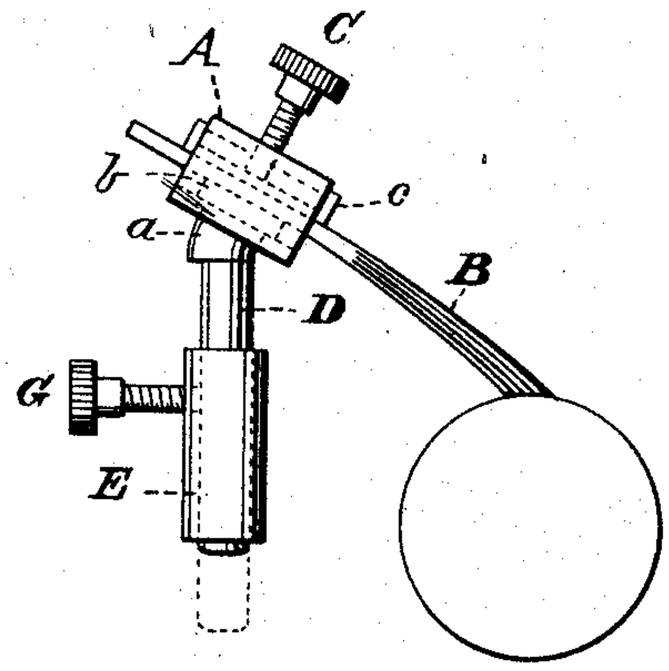


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANKLIN A. WELLER, OF LYNN, MASSACHUSETTS.

BRUSH-HOLDER FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 428,735, dated May 27, 1890.

Application filed August 29, 1889. Serial No. 322,363. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN A. WELLER, a citizen of the United States, and a resident of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Brush-Holders for Dynamo-Electric Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention and is a vertical section. Fig. 2 is a section taken where the broken line *x x* is marked on Fig. 1. Fig. 3 is a modification.

This invention relates to certain improvements in brush-holders for dynamo-electric machines and motors, having for its object to readily vary the angle of presentation of the brush to the surface of the commutator, or, in other words, to change its plane of rotation; and it consists of the novel combination of parts and their construction, as will fully appear from the following description and illustration.

In carrying out my invention I employ a holder A for the brush B, which is preferably rectangular in cross-section, and is hollow or has an opening through it to receive the brush, and is provided with a binding or adjusting screw C, the purpose of which is to bring the pressure of the brush upon the commutator A′.

D is a spindle-like arm or rod, which has a short bend or angular portion *a* at one end, which carries the holder A, giving the latter a forward and upward inclined or deflected position toward the commutator. The bent or angular portion *a* has at its extreme outer end a head or disk *b*, which serves as a shoulder, against which the inner rear side of the holder rests and is prevented from displacement, and also as the opposing surface, between which and a follower *c*, inserted in the holder A, is held the brush B by means of the screw C. This arrangement permits the adjustment also laterally either to the right or left of the holder with the brush, said holder being capable of turning axially upon said angular or bent portion, thus varying the angle of presentation of the brush to the commutator or its plane of rotation.

The arm or rod D itself is adapted to have longitudinal movement, as also an axial movement, having a telescopic joint connection or fitting, so as to both slide and turn in a sleeve or tubular bearing E, fixed to a support or yoke F, of which only about one-half, however, is disclosed.

The sleeve or bearing E is provided with a holding and adjusting screw G to permit adjustments referred to and to secure the rod or arm after such adjustment. This arrangement, it will be seen, permits the ready feeding of the brush to the commutator, as also the bodily adjustment horizontally of the rod or arm and the holder with the brush, as may be required.

In the modification as shown in Fig. 3 the arm or rod D is disposed in a vertical or upright position, adapting the device to a cylinder-commutator.

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

1. In an electrical brush-holder, the arm or rod and its support, said arm or rod having an angular or bent portion provided with a head or disk, in combination with the brush-holder with its brush and follower and the holding and adjusting screw therefor, substantially as set forth.

2. In an electric brush-holder, the combination of the yoke or support, the tubular bearing or sleeve, the rod or arm, the screw for holding and adjusting said rod or arm, the holder with its brush and follower, and the screw for securing and adjusting said holder, said rod or arm having an angular or bent end provided with a disk or head engaging said holder and brush, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN A. WELLER.

Witnesses:
WARREN B. LEWIS,
G. H. QUAID.