

A. FREIER.
BRUSH HOLDER.

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960,875.

Patented June 7, 1910.

Fig. 1

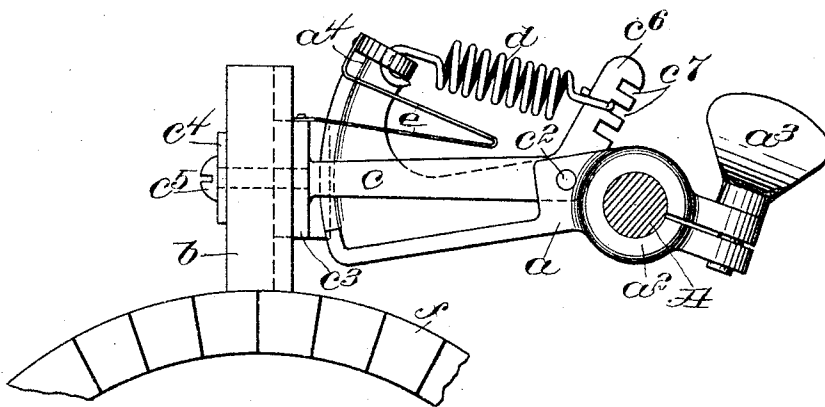
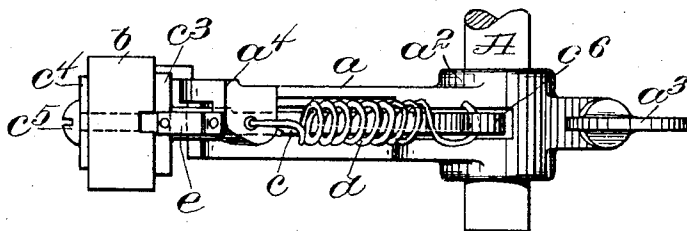


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

ANTON FREIER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HOLTZER-CABOT ELECTRIC COMPANY, A CORPORATION OF MASSACHUSETTS.

BRUSH-HOLDER.

960,875.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANTON FREIER, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Brush-Holders, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 The present invention relates to a brush holder for dynamo electric machines, and is embodied in a holder especially adapted for use with a carbon brush, the purpose of the invention being to provide the holder with a substantially rigid support upon the frame, without interfering with the spring support of the brush itself.

In accordance with the invention, the brush holding member is pivotally connected with a supporting frame which is adapted to be clamped to a part of the frame of the dynamo, the adjustment of the tension on the brush being independent of the main frame connection. The pivotally supported brush holding member is provided with an arm which is adapted to be connected by a spring with a portion of the main frame, the said arm having a series of spring-engaging portions at different distances from the pivotal connection, whereby the tension on the brush may be varied.

Figure 1 is a side elevation of a brush holding member embodying the invention showing in section the supporting rod upon which it is mounted, and also showing a portion of the commutator; and Fig. 2 is a top plan view of the same.

The brush holder consists of the main frame a which is provided with a split collar a^2 adapted to be clamped, as by a thumb screw a^3 , upon a portion of the frame of the machine, such as a rod or bar A. This main frame portion is thus arranged to be rigidly connected with the machine when in place, and does not, in any way, enter into the means for adjusting the brush or the tension of the spring which holds the brush in contact with the commutator.

The brush b , which is herein shown as a carbon block, is held in the brush-holding

member c , which is shown as an arm pivotally connected at c^2 with the main frame a , and provided at its outer end with a supporting member c^3 against which the brush b is clamped by means of a washer c^4 and screw c^5 . The main frame a is provided with an upwardly projecting arm or member a^4 , and the brush holder member c is in the form of an elbow lever having an arm c^6 , the tension on the brush being provided for by means of a spring d which is connected with the projection a^4 and the arm c^6 . The arm c^6 is shown as provided with a series of notches c^7 at different distances from the pivotal support c^2 , so that the tension on the brush can be varied by changing the position of the spring d with relation to the arm c^6 . For the purpose of insuring a free path for the current between the brush b and the frame, the arm c is also connected with the arm a^4 by a strip of conducting material e in the form of a flat spring which will accommodate itself to variations in the position of the brush as the surface of the brush wears away.

Claim.

A brush holder comprising a frame member having a clamp at one end for securing it to the machine, and an upwardly projecting arm at the opposite end combined with a brush holding member consisting of an elbow lever pivotally connected with the frame member at a point adjacent to said clamp and having an arm extending forward past the upwardly projecting arm of the frame; means for connecting the brush to said forwardly extending arm, the other arm of said elbow lever projecting upward and being provided with a series of notches; a spring connected at one end of the upwardly projecting arm of the frame and secured at the opposite end in one of said notches; and a flexible conductor connecting the frame member with the brush holding member.

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

ANTON FREIER.

Witnesses:

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