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M. J. STANTON

BRUSH HOLDER

Filed March 2, 1927

Fig. 1.

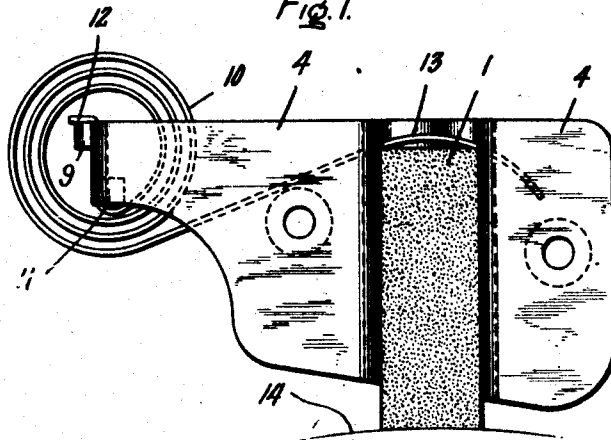


Fig. 2.

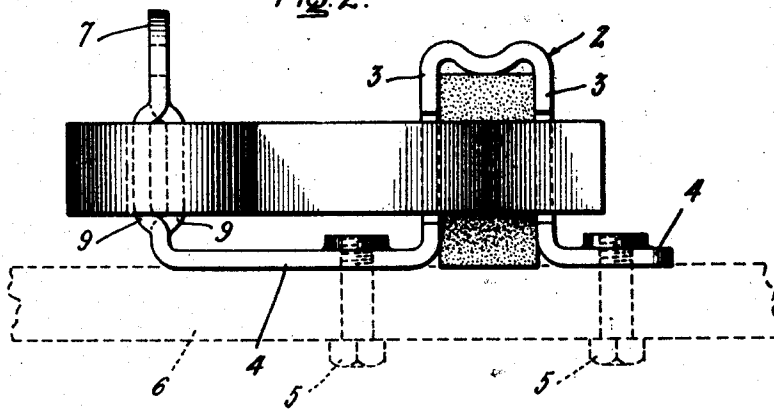
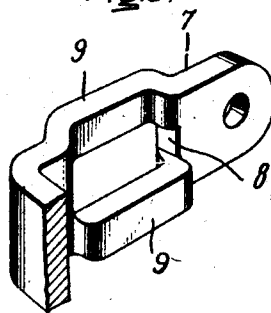


Fig. 3.



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UNITED STATES PATENT OFFICE.

MYLES J. STANTON, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

BRUSH HOLDER.

Application filed March 2, 1927. Serial No. 172,133.

My invention relates to brush holders for dynamo-electric machines and has for its object to provide a brush holder of improved and simplified construction.

Heretofore brush holders have been provided with means for retaining the brush spring which were either ineffective or of complicated form requiring several bent and notched portions making their construction difficult. It is the purpose of my invention to construct a brush holder for securely retaining the brush spring which renders unnecessary the use of notches or complicated bending of the elements thereof.

My invention will be more fully set forth in the following description referring to the accompanying drawing, in which Fig. 1 is a side elevation of my improved brush holder showing a brush supported therein; Fig. 2 is a plan view of the structure of Fig. 1; and Fig. 3 is a perspective view of the spring retaining projection of the brush holder shown in Figs. 1 and 2.

Referring to the drawing, my improved brush holder consists of means for supporting a brush 1 which preferably comprises a continuous strip of material bent to form a substantially U-shaped member 2, the arms 3 of which extend around the brush and terminate in angular extensions 4 bolted at 5 to a brush carrying ring 6 shown in dotted lines in Fig. 2. One of the angular extensions 4 is provided with a spring supporting projection 7 having a closed slot 8 therein and a portion 9 of said projection at each side of the slot bent out of alignment therewith oppositely to the portion on the other side thereof, as clearly shown in Fig. 3, to secure the spring 10 and yet permit it to be readily removed when desired. The spring supporting projection of the form described rigidly supports the spring and is particularly desirable as it may be readily formed in dies of simple form in a single operation. The brush spring 10, which may be of any suitable form other than the spiral spring shown, is provided with an inner end 11 formed with an angular extension 12 and an outer end 13 slightly curved to extend adjacent the brush. In applying the spring to the brush holder the spiral is arranged around the projection 7 so that the inner end 11 passes through the slot 8 and the spring is then rotated until it comes in contact with the bent portions 9 which

causes the angular extension 12 on the spring to bear on one of them. Further turning in a counter clockwise direction as viewed in Fig. 1 flexes the spring and when it exerts sufficient pressure the curved portion is placed on the brush 1 to retain the latter in contact with the surface of the current collecting means indicated at 14. The bent portions 9 of the projection 7 form seats for the end 11 of the spring which prevent it from moving laterally and which retain it in place by the pressure exerted thereby on the bent portions 9. On the other hand the spring 10 may be readily removed by unseating it from the brush 1, relieving the tension therein, and withdrawing the inner end 11 from the slot.

From the foregoing description it will be apparent that I have made a brush holder of simplified form which can be easily and inexpensively produced.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a brush holder, means for supporting a brush having an extension thereon, a spring supporting projection on said extension having a closed slot therein and a portion on each side of said slot bent out of alignment therewith oppositely to the portion on the other side thereof, and a spring having one end in said slot and the other end extending over said brush supporting means for engaging the brush, said spring being arranged to be flexed by engagement with said bent portions to retain it in said slot and to exert pressure on the brush.

2. In a brush holder, means for supporting a brush having an extension thereon, a spring supporting projection on said extension, said projection having a closed slot therein and a portion on each side of said slot bent out of alignment therewith oppositely to the portion on the other side thereof, and a spring carried by said projection one end of which passes through said slot having an angular extension bearing on one of said bent portions and the other end extending over said brush supporting means for engaging the brush, said spring being arranged to be flexed by engagement with said bent portions to retain it in said slot and to exert pressure on the brush.

In witness whereof, I have hereunto set my hand this 28th day of February, 1927.

MYLES J. STANTON.