March 24, 1953 J. AGRON 2,632,860

ADJUSTABLE BRUSH HOLDER SUPPORT FOR DYNAMOELECTRIC MACHINES

Filed Oct. 29, 1949

Fig. 1

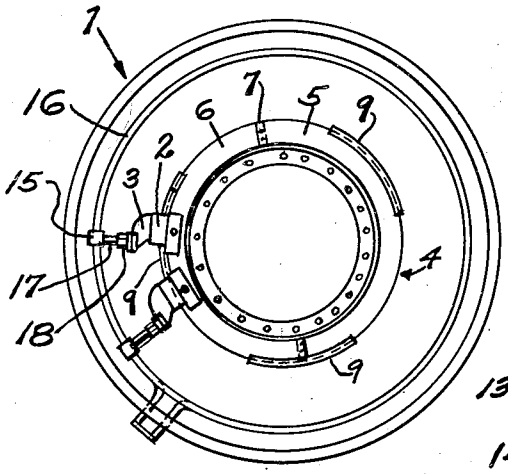


Fig. 2

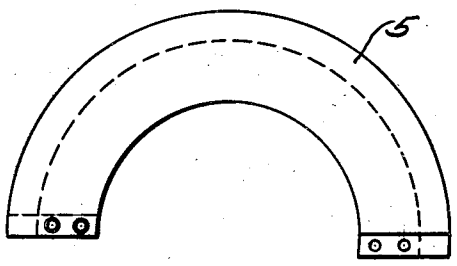


Fig. 3

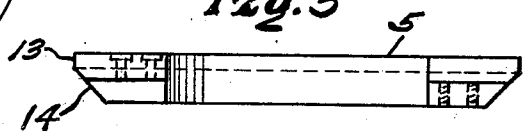


Fig. 4

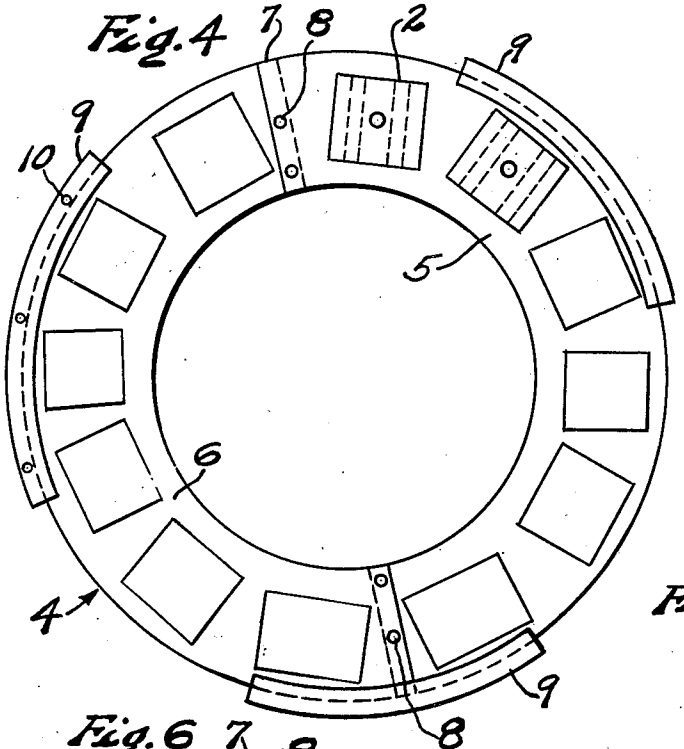


Fig. 5

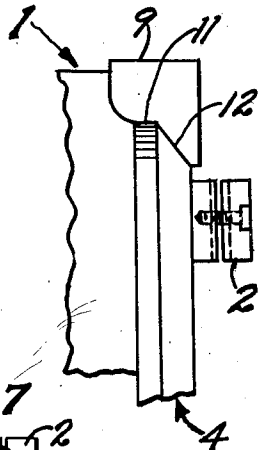


Fig. 7

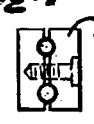
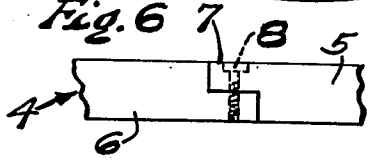


Fig. 6



INVENTOR
JACK AGRON

By John A. McDowell
his atty.

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ADJUSTABLE BRUSH HOLDER SUPPORT FOR DYNAMOELECTRIC MACHINES

Jack Agron, Los Angeles, Calif., assignor of thirty-two and one-half per cent to Max Rosen, Los Angeles, Calif.

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2 Claims. (Cl. 310—241)

1

An object of this invention is to provide a brush holder disc that is made in two sections and that is so constructed and arranged that it may be revolved making it possible to move each brush and brush holder in a position to be easily worked on to be repaired or replaced.

Another object of the invention is to provide a novel constructed brush holder disc that will be clamped to the frame of a generator or motor and by releasing one of the clamps will permit the electrician to revolve the holder disc thus bringing each brush in position directly in front or at an easily working position to change the brushes or brush holder.

Another object of the invention is the novel construction and arrangement whereby the invention shall be of simple construction and therefore of inexpensive manufacture, and yet which will be thoroughly practical and efficient in use.

The invention may have a variety of applications and certain of the features of construction may be embodied in a variety of structures.

Other objects, advantages and features of invention may appear from the accompanying drawings, the subjoined detailed description and the appended claims.

The accompanying drawings illustrate the invention.

Figure 1 is a diagrammatic end view of a generator housing showing how the invention may be applied thereto.

Fig. 2 is a plan detail view of a half section of the disc or ring.

Fig. 3 is a side elevation of Fig. 2.

Fig. 4 is an enlarged plan view of the brush holder disc ring showing the location of the brush holder clamps and also shows the disc ring holder clamps in position. One clamp is shown using countersunk screws and the other two clamps may be welded or fixed in any well known manner to the generator housing.

Fig. 5 is a fragmental detail view showing how the disc ring clamp is constructed and how it holds the disc ring in position and also shows one of the brush holder blocks.

Fig. 6 is an enlarged fragmental detail end view showing the overlap joint of the disc ring.

Fig. 7 is a top plan view of the brush holder block.

I show a generator end housing 1 which is of the general type used and only such portion thereof illustrated as required to locate the revolving disc ring and clamps to locate the invention and how it is used.

2

The brush holder clamps 2, and brush holder 3 are, or may be of any approved construction.

The revolving disc ring 4 is constructed and arranged to fit snugly to the generator frame housing 1 and the disc ring is made in two sections 5 and 6 and when placed in position forms a ring having overlapped joints as at 7 that are held together by countersunk screws 8.

This disc ring 4 may be made of metal as steel, brass, or cast iron or any suitable material to meet the requirements.

To hold the disc ring in place to the frame 1 clamps 9 that are shown spaced as shown in Fig. 4 of the drawing and one of the clamps will be screwed to the frame by the counter-sunk screws 10 to permit loosening up when it is desired to revolve the disc ring 4 to change or repair the brushes or brush holder.

The clamps 9 are constructed with a seating edge 11 and beveled at an angle as at 12 to permit properly seating of the disc ring 4 to keep it in proper alignment, and the ring 4 having its edges constructed as at 13 and 14 to fit snugly into the clamps.

The lapped joint 7 of the two sections of the ring or disc 4 permits an easy and quick method of removing and installing the disc ring when desired by men when they are working on the generator or motor.

Referring to Fig. 1, I have provided a cable or wire clamp 15 that fits on the cable 16 and carries a contact blade 17 that fits into a brush holder contact clip 18 that is fixed to the brush holder 3, this construction and arrangement will permit the contact blade to fit into the clip in any position as these clips and brush holders are spaced around the disc ring and it would not be necessary to put the brush holder back to its original position as is done with the present general construction and arrangement of the brush holder contacts and cables attached thereto.

I have found in many types of mechanism it is difficult or impossible to obtain access to the brushes when in operative position, and hence it becomes necessary to shift the support for the brushes to obtain access thereto and I have provided a means to have free and ready access to the brushes for examination or repair.

I claim:

1. In a revolving brush holder disc ring of the character set forth for motors and the like to form a rotative adjustment for brushes and brush holders to secure non-sparking, a disc ring having two sections provided with over-lapping joints at their ends that are held together by

counter-sunk screws and being held to the motor frame by a plurality of circular ring clamps equally spaced in relation to each other and one of the clamps being screwed to the motor frame and permitting loosening when desired to permit the disc ring to be rotated to move the brushes and brush holders in a position to repair or replace them and means to permit properly seating of the disc ring to keep it in proper alignment.

2. In a revolving brush holder disc ring for generators or the like comprising a ring having means to rotatably mount said ring to a generator frame and providing a support for a plurality of brushes and brush holders; said ring having two sections and spaced circular ring clamps constructed on their inner side with a seating edge and beveled at an angle to permit

properly seating of the disc ring to keep it in proper alignment and said disc ring being constructed on its outer edge to fit snugly against said seating edge and beveled angle of the clamps.

JACK AGRON.

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