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F. F. DORSEY

BRUSH RIGGING

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Fig. 1

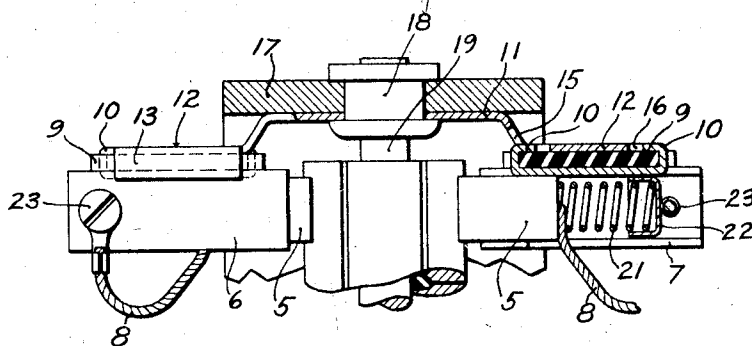


Fig. 2

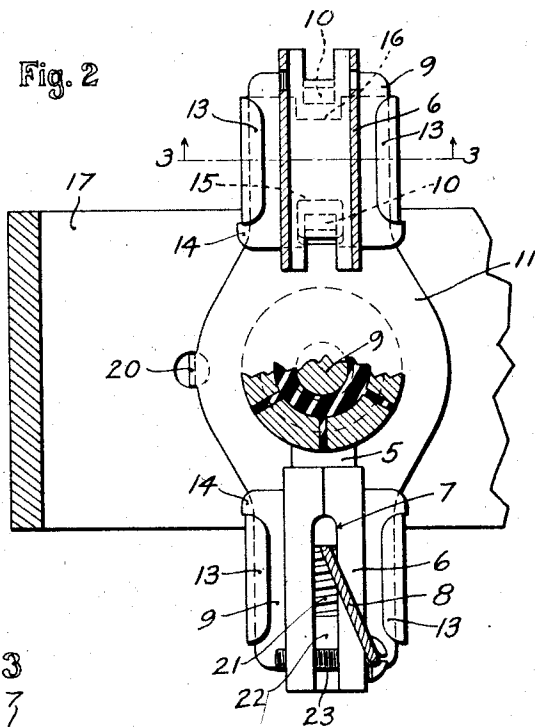
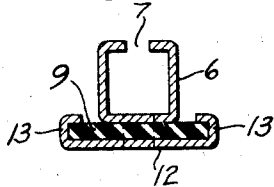


Fig. 3



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BRUSH RIGGING.

• Application filed December 31, 1921. Serial No. 526,299.

To all whom it may concern:

Be it known that I, FARNUM F. DORSEY, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Brush Riggings; and I do hereby 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.

This invention relates to brush-rigging suitable particularly for small electric motors, and the object of the invention is to produce a brush-rigging of simple and inexpensive construction, and of such form that it may be conveniently and quickly assembled.

The novelty of the invention resides particularly in the manner in which the brush-holders or guides are supported and insulated, and the invention will be readily understood from the following description of the preferred embodiment.

In the drawings, Fig. 1 is a plan-view, partly sectional, of brush-rigging embodying the present invention, together with adjacent parts of an electric motor. Fig. 2 is an axial elevation of the same parts, partly in section, and Fig. 3 is a section on the line 3—3 in Fig. 2.

The invention is illustrated as embodied in an electric motor of a type commonly used in electric signal-horns. The brushes 5, which may be of carbon, are of rectangular section and are arranged to slide in tubular or box-like holders or guides 6. Each holder is formed of a single piece of sheet-metal suitably bent, and between the adjacent longitudinal edges of the metal is left a slot 7, through which the flexible connector or pig-tail 8 of the brush may move.

Each brush-holder is supported and insulated by a flat piece 9 of sheet insulating material having a generally rectangular form, with rounded corners. As an inexpensive and convenient means for securing the brush-holder in place, it is provided, at each end, with an integral lug 10 cut at the end of the sheet-metal, and these two lugs are bent backwardly and inwardly so as to clasp the opposite end-edges of the insulating member 9. These edges are notched to receive the lugs and thus prevent lateral displacement of the brush-holder.

The insulating members 9 are supported by a sheet-metal member 11, which is provided with two extensions or arms 12 lying behind the insulating members. Each arm 12 is bent, at its lateral edges, to provide lugs 13 which clasp the lateral edges of the insulating members. These edges are provided, at their inner extremities, with lugs or extensions 14 to prevent the insulating members from sliding outwardly in consequence of the pressure of the springs by which the brushes are controlled.

To prevent contact of the lugs 10 with the arms 12, the latter are provided with suitably located holes 15 and recesses 16, which afford the necessary clearance, as shown particularly in Fig. 1.

As a convenient means for securing the supporting member 11 in place on the frame 17 of the motor, the supporting member is centrally perforated to embrace the bearing-sleeve 18 in which the armature-shaft 19 is mounted, and this sleeve is headed over or flanged at the end to secure the supporting member against the frame. Rotation of the supporting member is prevented by a lug 20 which engages a hole in the frame, as shown in Fig. 2.

Each brush 5 is provided with a spring 21 seated in a cap 22, and a screw 23, threaded in the end of the brush-holder, serves both as an anchorage for the spring and as a binding screw by which the pigtail 8 may be connected with a lead or wire.

It will be apparent that the brush-rigging described may be made very inexpensively by simple punching and stamping operations, and that its manufacture is simplified by the fact that it may be completed and assembled as a unit distinct from the other parts of the motor.

The invention is not limited to the details of construction of the embodiment thereof hereinbefore described and shown in the accompanying drawings, but it may be embodied in various other forms within the scope of the following claims.

The invention claimed is:

1. Brush-rigging comprising: a flat piece of sheet insulating material; a sheet-metal brush-holder provided with lugs embracing opposite edges of the insulating-material; and a sheet-metal support provided with lugs embracing other opposite edges of the insulating material.

2. Brush-rigging comprising: a flat piece of sheet insulating material; a sheet-metal brush holder, at one side of the insulating material, provided with lugs near its end
5 which embrace the end-edges of said material; and a sheet-metal support, at the other side of the insulating material, provided with lugs which engage the lateral edges of said material. ing-member, of sheet-metal, provided with arms, each arm having lugs on its lateral edges; a piece of sheet insulating material secured to each arm by engagement of its lateral edges with said lugs; and a brush-
15 holder secured to each piece of insulating material at the side opposite the arm by which it is supported.
- 10 3. Brush-rigging comprising: a support-

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