

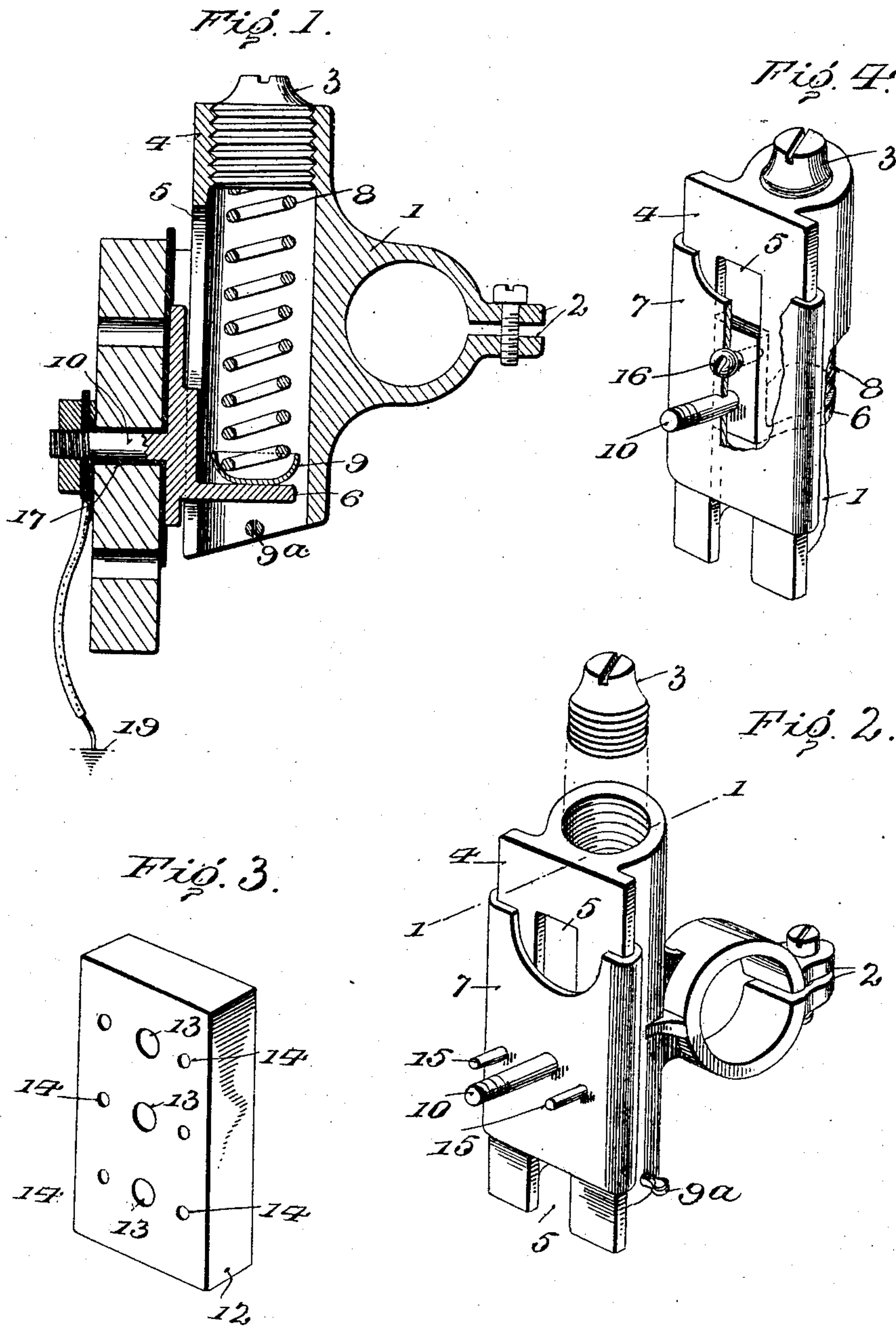
L. H. SPARKS.

BRUSH HOLDER.

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930,427.

Patented Aug. 10, 1909.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

LORENZO H. SPARKS, OF WARREN, OHIO.

BRUSH-HOLDER.

No. 930,427.

Specification of Letters Patent.

Patented Aug. 10, 1909.

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To all whom it may concern:

Be it known that I, LORENZO H. SPARKS, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Brush-Holders, of which the following is a specification.

The objects of this invention are to provide a simple and durable brush holder for dynamo-electric machines; to enable the pressure on the carbon to be readily regulated; and to avoid all liability of any lateral displacement of the carbon.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view on line 1—1, Fig. 2, and the latter is a view in perspective, with the carbon omitted. Fig. 3 is a view of the carbon. Fig. 4 shows a modification with parts broken away and the carbon omitted.

Referring to the drawings, 1 designates a casting which is shown as formed with clamping members 2 by which it may be removably and adjustably secured to a support, not shown. This casting has a cylindrical bore or chamber threaded at its upper end to accommodate a nut 3. The casting has a flat side face 4 in which is formed a longitudinal slot 5 to accommodate the shank or neck of a finger 6 extended rearwardly from and at right angles to the brush carrier 7, which latter fits over or against the flat face 4 and is preferably secured thereto by having its ends hug the edges of said face.

8 designates a coil spring located within the cylindrical bore of casting 1, its lower end fitting in a cup-shaped plate 9 which rests on finger 6. The downward movement of the latter by the action of the spring is limited by any suitable stop, such as a cross pin 9^a extending transversely of the bore and supported by the sides of the casting. The tension of this spring may be readily regulated by adjusting nut 3. From the carrier 7 projects a threaded screw rod 10 upon which the carbon brush 12 is designed to be secured. For the purpose of allowing the brush to be adjusted it is provided with a series of centrally arranged holes 13 through any one of which the screw rod may be passed, and for the purpose of preventing lateral displacement the brush is

also provided with two series of holes 14 to take in lugs 15 projecting from the carrier. The finger 6 is shown in Fig. 1 as integral with the brush carrier, but if preferred it may be made separate therefrom and secured thereto by a screw 16, and from it the screw rod 10 may project. See Fig. 4.

For the purpose of preventing any impairment of the resiliency of the spring, I locate non-conducting material 17 between the brush and its carrier and around the screw rod 10. The conducting wire 18 is attached to screw rod 10 and to a terminal block conventionally indicated at 19.

The advantages of my invention will be readily appreciated by those skilled in the art. It will be observed that by means thereof a maximum of wear and use of the brush may be had; that the parts are readily accessible, strong and durable and not liable to readily get out of order.

I claim as my invention:

1. A brush holder comprising a casting having a cylindrical bore, a flat face and a longitudinal slot in such face, a brush carrier slidably fitted against said flat face and having a finger projecting laterally therefrom through said slot into said bore, a support for the brush extending laterally from said carrier, a spring within said bore acting against said finger, and means within said bore for regulating the tension of said spring.

2. A brush holder comprising a casting having a cylindrical bore, a flat face and a slot formed longitudinally in said face, a brush carrier slidably fitted against said flat face and having its edges hugging the edges of said flat face, a finger projecting laterally from said carrier through said slot into said bore, a spring within the latter acting against said finger, and means also within said bore for regulating the tension of said spring.

3. A brush holder comprising a casting having a cylindrical bore and a longitudinal slot, a brush carrier slidably fitted to said casting and having a finger projecting through said slot into said bore, a spring within said bore acting against said finger, a brush, a support therefor projecting laterally from said carrier, and insulating material between said brush and the carrier and also between the brush and said support.

4. The combination with the brush carrier having studs projecting therefrom, of a

brush having openings to take in said studs, and means for securing the brush to said carrier.

- 5 5. The combination with a brush carrier having a threaded rod projecting therefrom and studs on opposite sides of said rod, of a brush having an opening to accommodate said rod, and also openings to take in said studs.
- 10 6. The combination with a brush carrier having a threaded rod projecting therefrom and studs on opposite sides of said rod, of a brush having a series of openings into any one of which said rod may be placed, and
- 15 also having two series of openings to take in said studs.

7. The combination with the casting having a cylindrical bore, a flat face, and a slot formed in said face, of the brush carrier slidably mounted on said face and having a finger projecting through said slot, a cup-shaped plate bearing on said finger, a coil spring engaging said plate, a nut fitted in said bore for regulating the tension of said spring, a brush, and means for securing the latter to said carrier.

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

LORENZO H. SPARKS.

Witnesses:

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