(No Model.)

T. REESE, Jr.

DYNAMO BRUSH CLAMP.

No. 441,256. Patented Nov. 25, 1890.

FIG. 1.

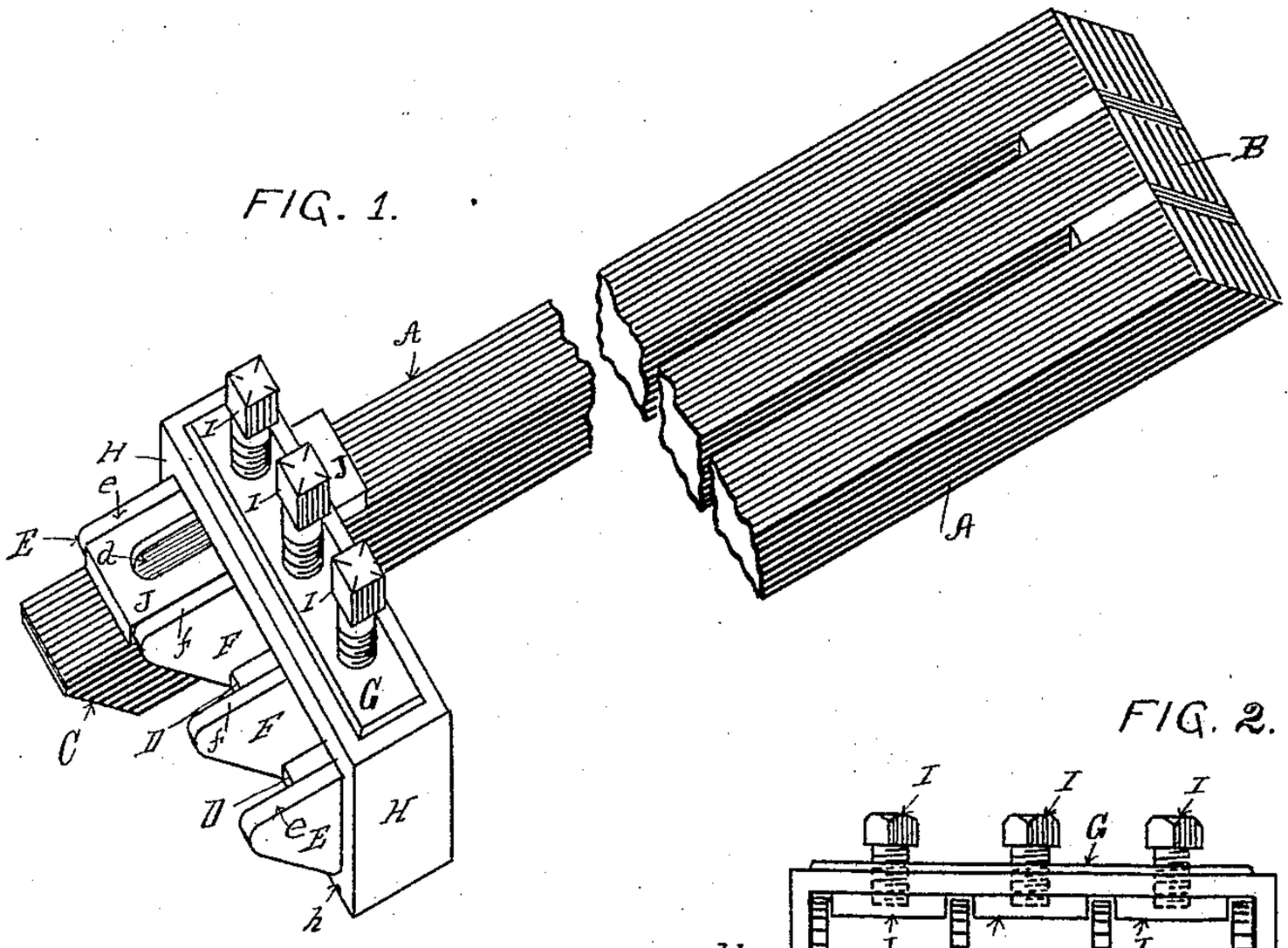
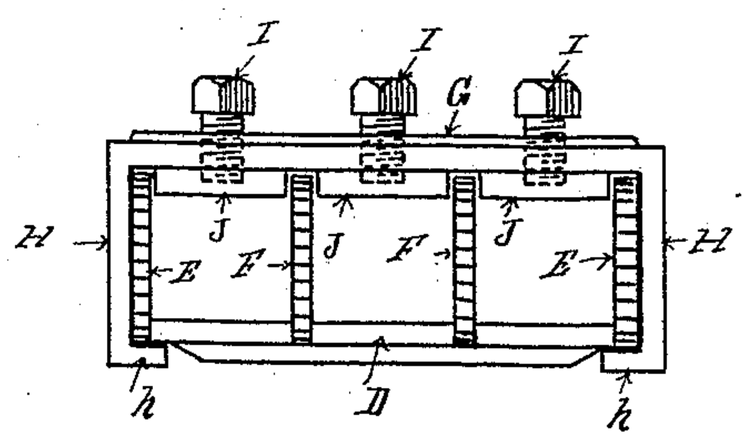


FIG. 2.



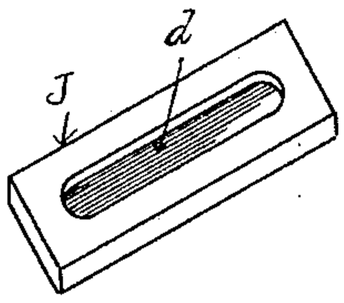
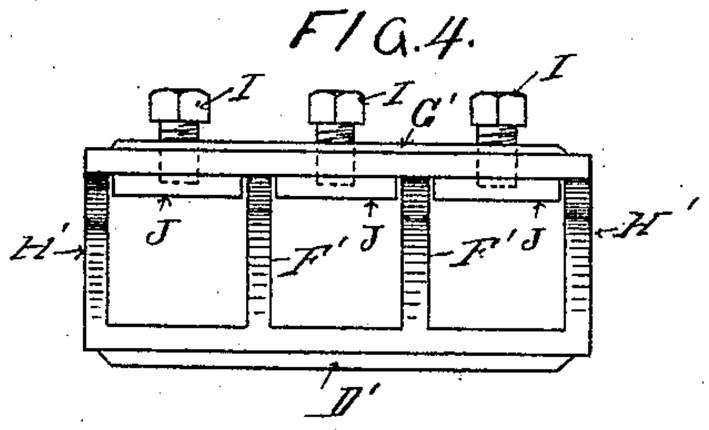


FIG. 3.

FIG. 4.



WITNESSES.

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DYNAMO-BRUSH CLAMP.

SPECIFICATION forming part of Letters Patent No. 441,256, dated November 25, 1890.

Application filed July 22, 1890. Serial No. 359,689. (No model.)

To all whom it may concern:

Be it known that I, THOMAS REESE, Jr., a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Dynamo-Brush Clamps; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention consists in the improvements in dynamo-brush clamps hereinafter set forth and explained, and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of a section of a dynamo-brush with my improved brush-clamp thereon. Fig. 2 is an end view of my improved dynamo-brush clamp. Fig. 3 is a perspective view of one of the bushings forming part of my device. Fig. 4 is an end view of a modified form of my improved brush-clamp.

Like letters refer to like parts in all the figures.

The object of my invention is to construct an adjustable clamping mechanism adapted to be applied to dynamo-brushes near the ends thereof, operating upon the commutator, and particularly to dynamo-brushes constructed in whole or in part either of one or more sections of longitudinal wires, or of such wires and layers of thin sheet metal for retaining the parts of the brush in proper juxtaposition to each other at a point where such brushes make contact with the commutator of a dynamo in lieu of the thin strips of sheet metal usually used for holding the same together.

In the construction of my improved dynamo-brush clamp shown, A is a section of a dynamo-brush constructed of three rectangular sections made of copper wires and strips of sheet copper, or made of copper wires alone, or of strips of sheet copper alone, the outer ends B of such sections being ordinarily secured together by soldering or any convenient manner.

I preferably make my improved brush-clamp in two sections, the lower section of which I make of a transverse piece of metal D, having vertical projections or flanges E E at the ends thereof, adapted to inclose the outer edges of the outside sections of the brush, and also with like vertical projections or flanges F F, adapted to pass up between the sections of the brush, the upper edges *e* and *f* of the flanges E and F projecting some distance along the brush toward the end thereof and being cut away therefrom at an angle to the base D of the clamp so as to leave them somewhat triangular in shape.

The upper section G of the clamp extends across the top of the brush, and has on the ends thereof downwardly-projecting arms H H, which pass down on the outsides of the flanges E E, and at their lower ends are provided with inwardly-projecting hooks *h h*, adapted to engage with the ends of the base D of the clamp. In the upper section G, I place set-screws I I I—one for each section of the brush—and under the screws I, on the top of each section of the brush, I place bushing-plates J, Fig. 3, having elongated depressions *d* therein to receive the points of the set-screws I. These plates or bushings J are of sufficient width to fill the spaces between the upper edges of the flanges E and F on the base D, so that by tightening the set-screws I the bushing-plates J are forced down upon the sections of the brush, so as to firmly clamp the ends of the wires or plates forming the sections of the brush together, and also retain the ends of the brush-sections in proper juxtaposition to each other.

In Fig. 4 I show a modified form of my improved brush-clamp consisting of a rectangular frame G′ D′ H′, the ends H′ thereof being adapted to fit against the outside edges of the brush. I also place in said rectangular frame partitions E′, adapted to pass between the sections of the brush. Under the upper side G′, I place bushing-plates J, Fig. 3—one on the top of each section of the brush—with which plates the points of set-screws I, which pass through the upper side G′, engage, so that by screwing down the screws I the ends next the commutator of the wires or plates forming the sections of the brush are firmly clamped together, and the ends of the sections of the brush next the commutator are also held in proper juxtaposition to each other.

From the description hereinbefore given of

my improved dynamo-brush clamp its operation is so obvious that further description thereof is deemed unnecessary. Therefore,

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination, in a dynamo-brush clamp, of a rectangular frame adapted to pass over and clamp the end of a dynamo-brush adjacent to the commutator, and vertical partitions in said rectangular frame adapted to pass between the sections of a dynamo-brush with set-screws in one side of said frame, and bushing-plates adapted to rest on the sections of said brush under the points of said set-screws, substantially as and for the purpose set forth.

2. The combination, in a dynamo-brush clamp adapted to clamp the end of the brush next the commutator, of a base-plate having upwardly-projecting flanges and adapted to inclose the bottoms and sides of the sections of a dynamo-brush, with an upper section having downwardly-projecting arms adapted to engage with the ends of the base-section, bushing-plates adapted to be placed on the tops of the brush-sections under the upper section of the clamp, and set-screws in the upper section, adapted to compress said bushing-plates down upon the sections of the brush, substantially as and for the purpose set forth.

3. The combination, with a dynamo-brush A of the type described, of a clamp for clamping the end of such brush near the point of its contact with the commutator, consisting substantially of a base-section D, having upwardly-projecting flanges E and F thereon, and an upper section G, having arms H inclosing the outer ends of the section D, hooks *h* thereon, adapted to engage with the ends of the lower section D, bushing-plates J, having elongated depressions *d* in the upper sides thereof, and set-screws I in the upper section G, for depressing said plates J, substantially as and for the purpose set forth.

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

THOMAS REESE, JR.

Witnesses:

LOUIS ALBRACHT, JR.,

H. J. CURTZE.