No. 725,239. PATENTED APR. 14, 1903.

E. GAUD.

BRUSH HOLDER FOR DYNAMOS.

APPLICATION FILED AUG. 6, 1901.

NO MODEL. 2 SHEETS—SHEET 1.

FIG. 1.

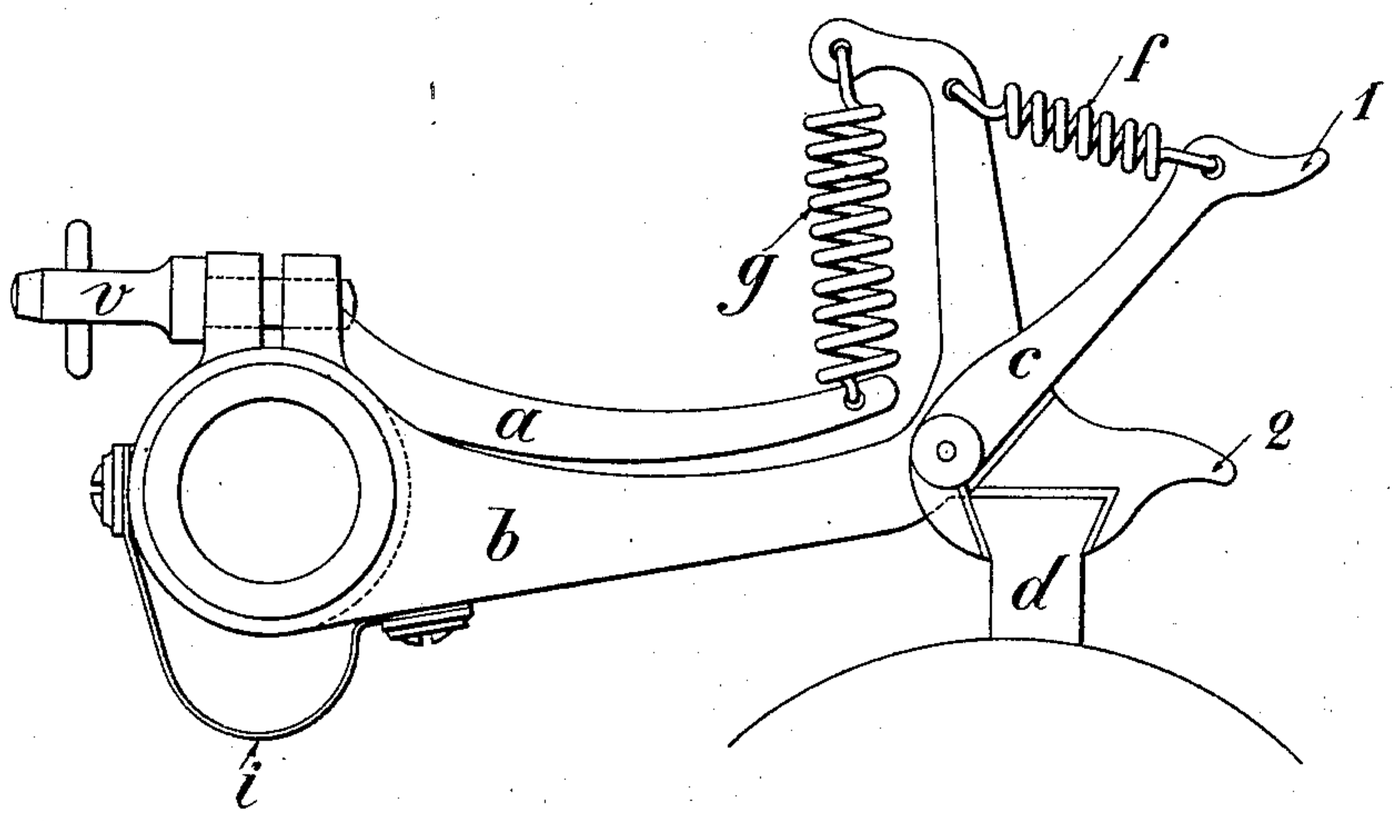
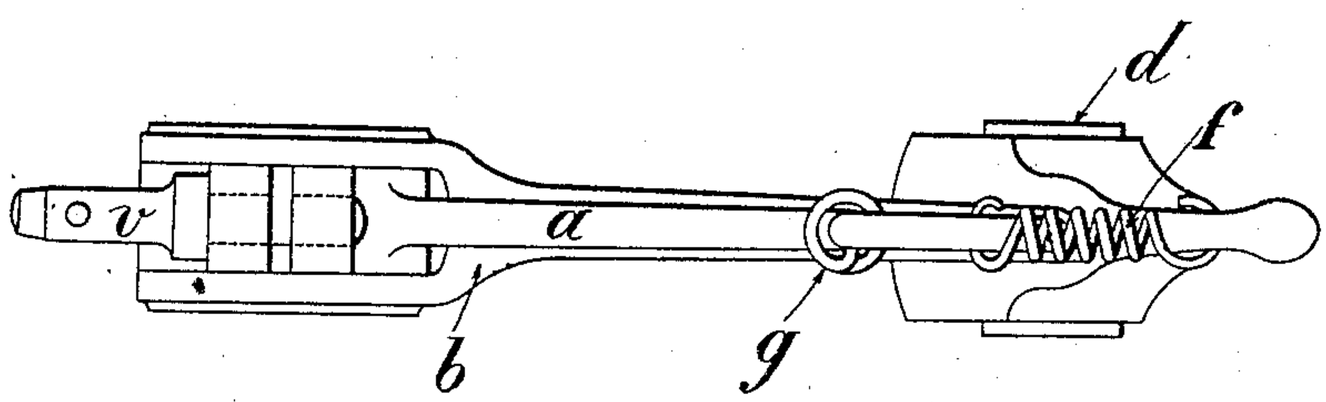


FIG. 2.



WITNESSES

H. M. Kuehne

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INVENTOR

Eugene Gaud.

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ATTORNEYS

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NO MODEL. 2 SHEETS—SHEET 2.

FIG. 3.

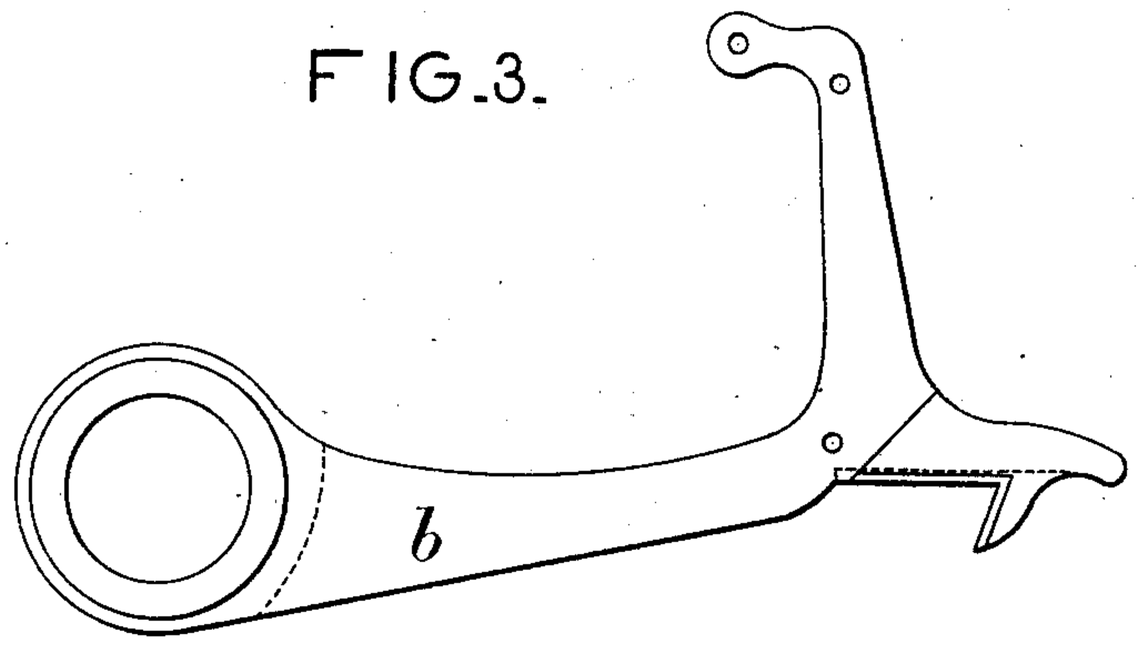


FIG. 4.

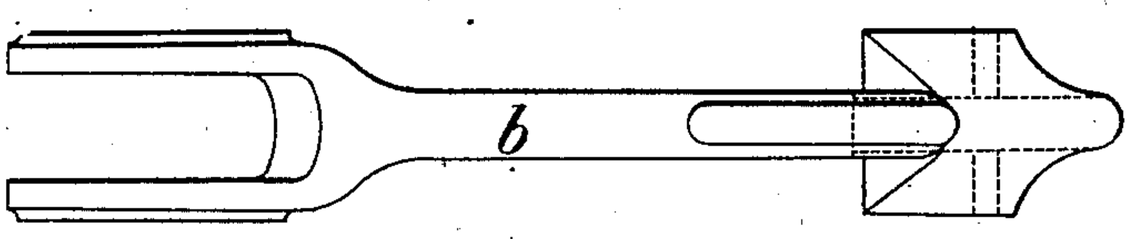


FIG. 5.

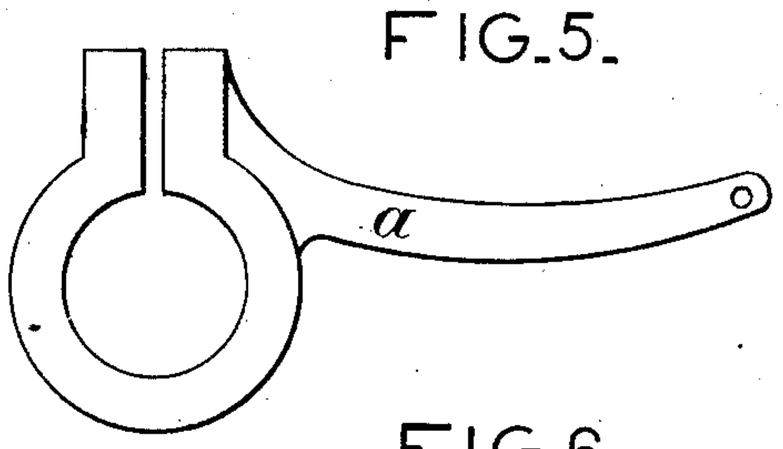


FIG. 6.

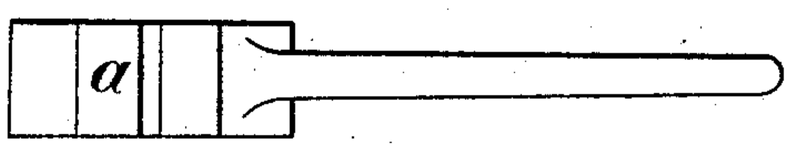


FIG. 7.

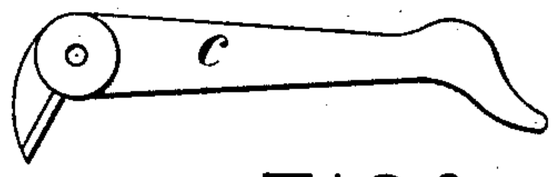
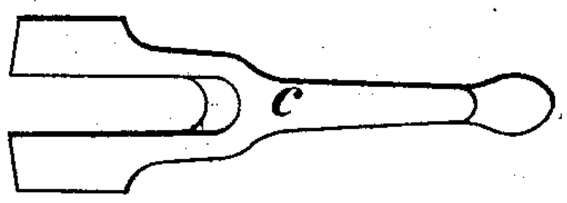


FIG. 8.



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ATTORNEYS

UNITED STATES PATENT OFFICE.

EUGÈNE GAUD, OF ASNIÈRES, FRANCE.

BRUSH-HOLDER FOR DYNAMOS.

SPECIFICATION forming part of Letters Patent No. 725,239, dated April 14, 1903.

Application filed August 6, 1901. Serial No. 71,042. (No model.)

To all whom it may concern:

Be it known that I, EUGÈNE GAUD, a citizen of the Swiss Confederation, residing at Asnières, Seine, France, have invented certain new and useful Improvements in Brush-Holders for Dynamos, of which the following is a specification.

My invention relates to a brush-holder for dynamos, and more particularly to a carbon-brush holder; and the object thereof is to provide for a simple, cheap, and effective brush-holder in which the carbon is held closely and with a uniform pressure against the commutator, so as to prevent sparking.

A further object of my invention is to provide for a brush-holder in which the spring which presses the carbon against the commutator works perpendicularly to the surface of said commutator and in which the carbon is perfectly clasped and may be readily removed from its holder.

My invention further consists in a brush-holder for dynamos constructed and arranged in substantially the manner hereinafter described and claimed, with reference to the accompanying drawings, in which—

Figure 1 is an elevation view of my improved brush-holder. Fig. 2 is a plan view of same. Figs. 3 to 8 are detailed views.

My brush-holder or carbon-clasp comprises, essentially, a collar *a*, provided with an arm, Figs. 5 and 6, adapted to afford to the block-holder a bearing-point on a cylindrical finger or support, a yoke-lever *b*, Figs. 3 and 4, oscillating around the cylindrical finger, and a carbon-presser *c*, Figs. 7 and 8, adapted to keep the carbon *d* tight in a dovetailed recess by means of a strong spring *f*. The end of the arm of collar *a* is connected to one of the arms of the yoke-lever *b* by means of another strong spring *g*, the tension of which is entirely employed to press the carbon perpendicularly against the commutator. Finally the yoke-lever is connected to collar *a* by a short shunt or copper plate *i*, insuring a perfect connection between the block-holder and the finger supporting same.

The three principal pieces *a b c* of my block-holder are made of any suitable metal cast in molds.

The carbon is constantly pressed in its recess by the action of the spring *f*, and is thus continuously kept in perfect contact with its support. The bearing-surfaces for the carbon are large and perfectly smoothened, and to insure the bearing it is only necessary that the carbon be properly sized.

The recess in which the carbon is clasped is grooved in such a manner that the clasp may come close to the commutator as the carbon wears without said carbon moving toward the front or back of the commutator. The finger supporting the block-holder may be arranged sufficiently apart from the commutator without the moving referred to taking place.

As to the utilization of the spring which tends to press the carbon against the commutator, it is as perfect as possible, since the action of said spring is exerted perpendicularly to the commutator and all its tension is employed for pressing the carbon perpendicularly against the commutator without exerting a prejudicial pressure on the finger around which the yoke-lever is thus allowed to freely oscillate.

My brush-holder has yet several advantages. It can be very easily and readily mounted, since its three principal pieces *a b c* are cast entirely finished with their holes, which besides allows of absolutely interchanging them. The other pieces may be all trimmed.

The perfect connection between the block-holder and the finger supporting same is insured by the shunt of copper *i*.

Finally the carbon can be removed from the block-holder or secured therein by exerting a mere pressure between the thumb and the index on points 1 and 2 in order to overcome the resistance of the spring *f*. The collar can also be fastened or unfastened by hand by means of the hand-screw *v*. Thus no key or implement is wanted for mounting and adjusting the block-holder on a machine nor to change the carbons.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a carbon-brush holder for dynamos, the combination of a collar *a* provided with an arm, a carbon-holder yoke-lever *b* embracing the collar *a* and provided with an upright arm, a spring *g* arranged perpendicu-

larly to the commutator of the machine and connecting the end of the arm of the collar *a* with the end of the upright arm of the yoke-lever *b*, a flexible conducting-plate *i* connecting the collar *a* with the yoke-lever *b*, a carbon-presser *c* pivoted by one end to the yoke-lever *b* and a spring *f* connecting the upright arm of the yoke-lever to the carbon-presser, substantially as and for the purpose set forth.

2. In a carbon-brush holder for dynamos, the combination of a collar *a* provided with an arm and a hand-screw *v* for adjusting and fixing the collar on its support, a carbon yoke-lever *b* provided with an upright arm and having an extension forming half a dovetailed recess and ended by a heel, a carbon-presser *c* pivoted to the yoke-lever *b* having one end formed in the shape of the second half dovetailed recess and the other end connected to the upright arm of the yoke-lever *b*, a spring *f* forming said connection, a spring *g* connecting the end of the arm of the collar *a* with the end of the upright arm, and a flexible conducting-plate *i* connecting the collar *a* with the yoke-lever *b*, substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

EUGÈNE GAUD.

Witnesses:

EDWARD P. MACLEAN,

ANTOINE LAVOIX.