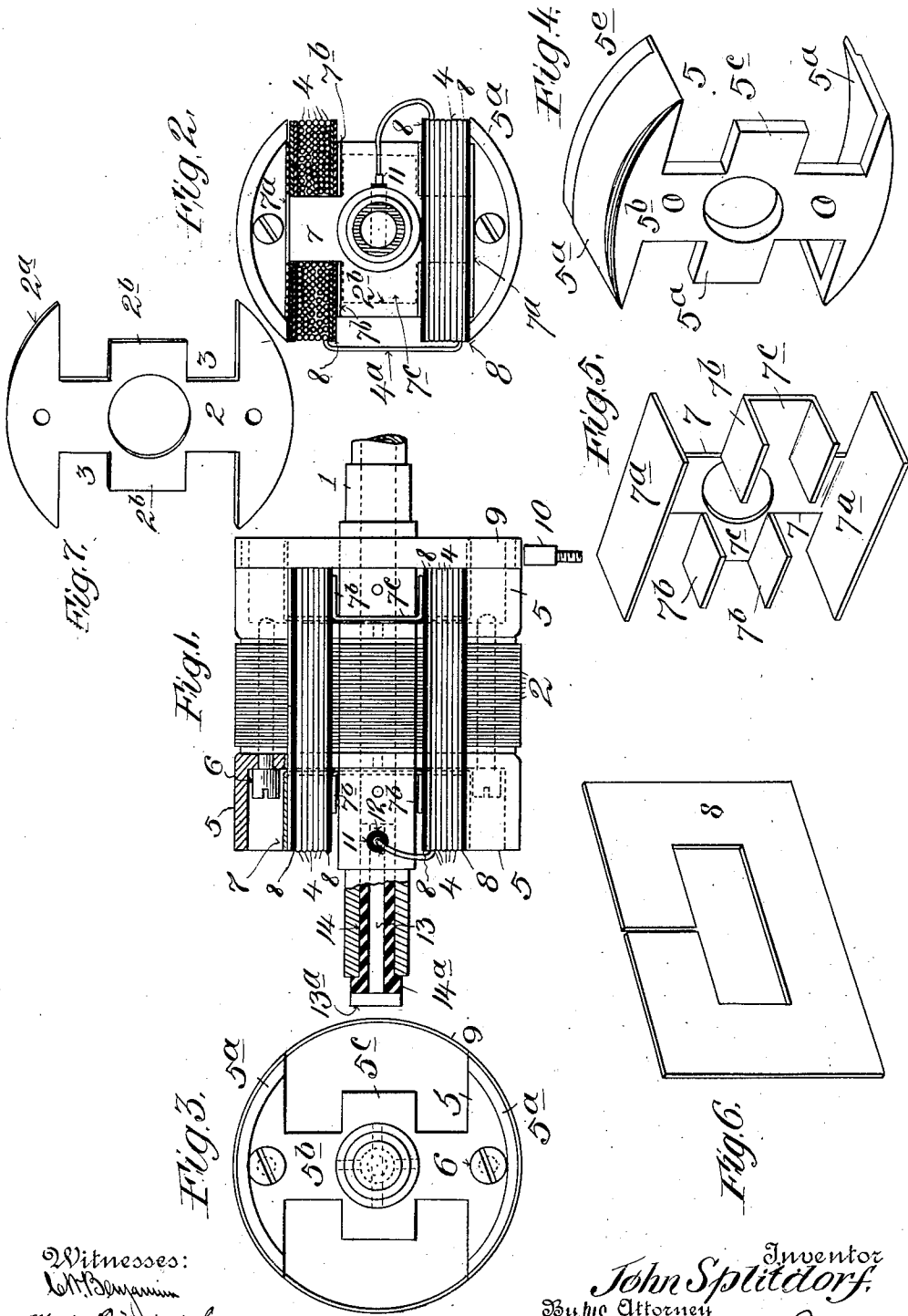


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 ARMATURE FOR ELECTRIC GENERATORS.
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1,004,599.

Patented Oct. 3, 1911.



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UNITED STATES PATENT OFFICE.

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ARMATURE FOR ELECTRIC GENERATORS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN SPLITDORF, a citizen of the United States, and resident of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Armatures for Electric Generators, of which the following is a specification.

The object of my invention is to improve the general construction of armatures for electric generators, and particularly for magnetos, to the end that the current will be more efficiently generated and distributed, the construction of the armature will be facilitated, and its cost reduced.

The invention comprises novel details of improvement and combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein,

Figure 1 is a partly sectional side view of an armature embodying my improvements; Fig. 2 is an end view partly in section; Fig. 3 is an end view of the armature, parts being removed; Fig. 4 is a detail perspective view of one of the armature heads; Fig. 5 is a detail perspective view of the non-magnetic shell; Fig. 6 is a detail perspective view of an insulating piece of the armature, and Fig. 7 is a face view of one of the laminated plates.

Upon a suitable shaft 1 are mounted a series of metal plates 2 which are shown having curved end portions 2^a and centrally located oppositely disposed projections 2^b, providing spaces 3 in which the windings of suitably insulated wire 4 are located.

At 5 are heads at the ends of the armature secured on opposite sides of the laminated plates 2, as by screws or bolts 6 passing through said heads and plates.

My improvements comprise a new form of the heads for the armature in that the curved end portions 5^a are made integral with the transverse portions 5^b by striking out and drawing said parts to shape from a piece of suitable metal, whereby the general construction of said heads is improved and strengthened, the cost of producing such heads is reduced, and the efficiency of the same is increased. The cross members 5^c

of said heads are shown provided with projections 5^c on opposite sides which correspond to and are in line with the projections 2^b of plates 2, and shaft 1 passes through the central openings in heads 5.

At 7 are non-magnetic plates having central bores to fit upon shaft 1 and located against the corresponding faces of heads 5. Said plates may be made of brass and have their ends turned outwardly at 7^a to fit within or adjacent the inwardly curved edges of the end members 5^a of heads 5, and the parts 7^b are bent up from the sheets of metal 7 to correspond and aline with the parts 7^a, providing intermediate spaces for the windings 4, the parts 7^b being shown struck up from projecting parts 7^c which correspond with and lie against the parts 5^c of heads 5.

At 8 are insulating sheets fitted upon the laminated plates 2 between the parts 7^a, 7^b, the windings 4 coming between said plates 8, the parts 7^a, 7^b, forming walls against which the insulating plates 8 bear and thus forming channels for the windings 4.

On one of the heads 5 is placed a band or ring 9 of non-magnetic metal, such as brass, for which purpose the end of part 5^a of head 5 is shown reduced at 5^e to receive band 9. A suitable brush or the like 10 bears against band 9 to collect the current from the same. Windings 4 on opposite sides of the armature are connected together, as at 4^a, and one end of said winding is grounded on one of the heads 5, and the other end of the winding is shown connected with a pin 11 passing across shaft 1 and insulated therefrom by insulation 12, pin 11 being secured in a pin 13 passing through a bore of insulation 14 entering the bore in one end of shaft 1, said insulation 14 being shown provided with a head 14^a at one end bearing against the end of the shaft, the head 13^a of pin 13 bearing against head 14^a, whereby current may be taken from head 13^a by any suitable brush or contact.

By means of my improvements the parts may be readily assembled and taken apart, the current is more effectively confined in the windings, the general efficiency of the armature is increased, the armature may be run at relatively high speed without injury. It will be understood that the armature may rotate in any magnetic field, as be-

tween the poles of permanent magnets, in any well-known manner, not necessary to illustrate.

Having now described my invention what I claim is:

1. An armature provided with heads at the ends and non-magnetic plates adjacent said heads having outwardly extended members spaced apart, and windings within said spaces.

2. An armature provided with heads at the ends and non-magnetic plates adjacent said heads at opposite ends, said plates having outwardly extending portions spaced apart, and windings within said spaces.

3. An armature having hollow heads at opposite ends, and plates within said heads, said plates having outwardly extending projections spaced apart, and windings in said spaces.

4. An armature provided with laminated plates and having heads at the ends provided with hollow portions, transversely disposed plates within said heads provided with outward projections spaced apart, and windings within said spaces.

5. An armature provided with laminated

plates and having heads at the ends provided with curved hollow portions, transversely disposed plates within said heads provided with outward projections spaced apart, and windings within said spaces, the outer of said projections being located within the curved end portions of said heads.

6. An armature provided with heads at its ends, non-magnetic plates within said heads having outwardly extending members spaced apart, windings within said spaces, and a non-magnetic band surrounding one of said heads.

7. An armature provided with heads at its ends, non-magnetic plates within said heads having outwardly extending members spaced apart, windings within said spaces, and a non-magnetic band surrounding one of said heads, said band being set into recess in said head.

Signed at New York city, in the county of New York, and State of New York, this 10th day of June A. D. 1910.

JOHN SPLITDORF.

Witnesses:

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