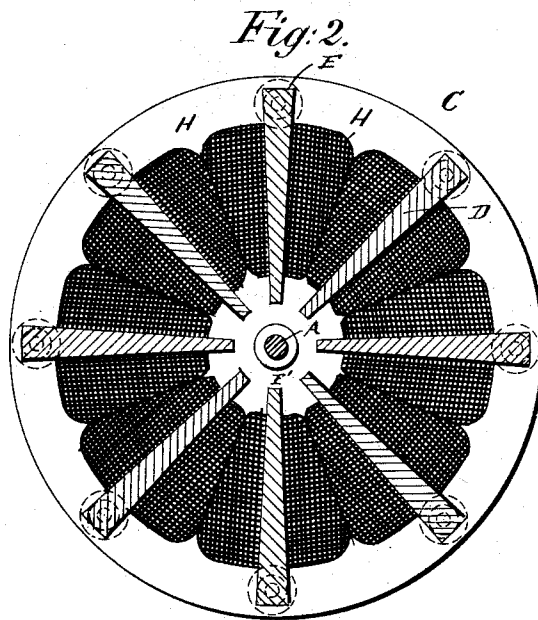
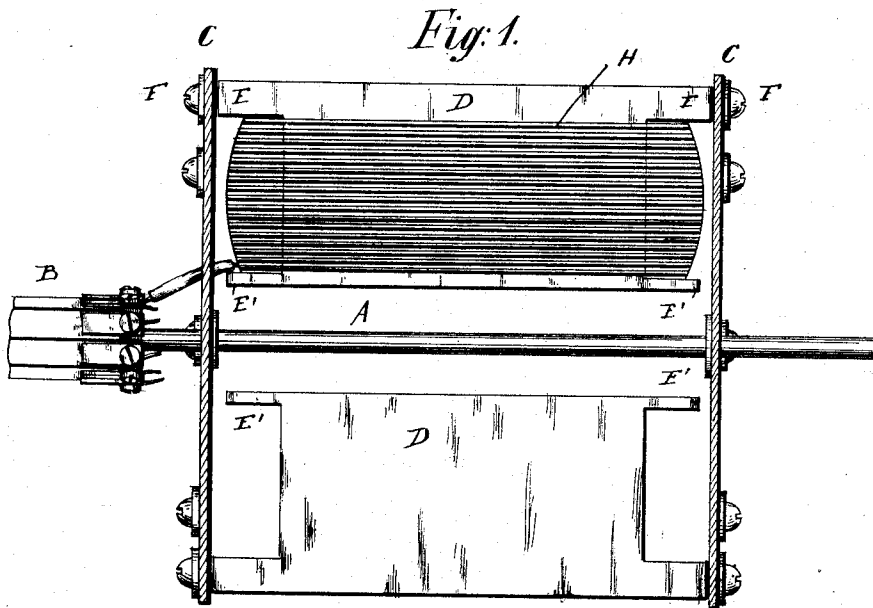


(No Model.)

M. RAHNER.
ARMATURE.

No. 505,957.

Patented Oct. 3, 1893.



WITNESSES:

Charles Schroeder
Harry Willard Griffiths

INVENTOR

M. Rahner

BY

Georgel & Reque

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MARTIN RAHNER, OF UNION, NEW JERSEY.

ARMATURE.

SPECIFICATION forming part of Letters Patent No. 505,957, dated October 3, 1893.

Application filed December 7, 1892. Serial No. 454,331. (No model.)

To all whom it may concern:

Be it known that I, MARTIN RAHNER, a citizen of the United States, and a resident of the town of Union, Hudson county, New Jersey, have invented certain new and useful Improvements in Armatures, of which the following is a specification.

This invention relates to armatures for dynamo-electric machines and electric-motors; and the object of my invention is to provide a new and improved armature which is simple in construction and from which any one coil can easily and readily be removed without disturbing any of the others.

The invention consists in the combination with a shaft, of end-plates on the same, a series of core-pieces held between said end-plates and a separate and independent coil on each core-piece.

The invention also consists in the construction and combination of parts and details which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of my improved armature, showing one core wound and the other bare, and Fig. 2 is a vertical transverse sectional view of the completed armature.

Similar letters of reference indicate corresponding parts.

The armature is mounted on the shaft A carrying the usual commutator B, which may be of any desired construction. On said shaft A, two end-disks C C of non-magnetic material, for example, brass, are mounted, and between said disks a series of core-pieces D is mounted radially, which core-pieces increase in thickness from their inner toward their outer edges. Each core-piece is provided at each end and at the outer edge with a lug E, and at the inner edge it is provided at each end with a corresponding lug E'. The lugs E are provided with threaded apertures and bolts F are passed through apertures in the end-plates C and screwed into the lugs E, said bolts being provided with heads at their outer ends. A coil H of insulated wire is wound on each core-piece D in such a manner as to increase in thickness from the inner toward the outer edge, as shown in Fig. 2, so that the sides of two adjacent coils rest against each other. Said coils are formed

in the usual manner and proper insulating material is used between the several windings. The ends of the coils H are connected with the commutator-sections in any suitable manner. Each and every core-piece D and the coil H thereon is entirely independent of any other coil and the core-piece can be removed from the armature without disturbing any such other coil, all that is necessary being to remove the screw-bolts F, when the core-piece and its coil can be removed.

In case by accident any one armature section or coil burns out, it can easily be removed and replaced by another. The surfaces of the coils are not at the outer periphery of the armature, but the outer edge of the core-pieces are at said periphery. In case the Babbitt metal of the bearings melts and the shaft A becomes displaced, only the outer edges of the core-pieces D can come in contact with the pole-pieces, and thus there is no danger of scraping the covering off all the wires of the armature, as frequently happens in the armatures used heretofore.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In an armature, the combination, with a shaft, of two end-disks on the same, a series of core-pieces held radially between the end-plates and fastened to said end-plates by bolts passed through said end-plates into the ends of the core-pieces and a separate and independent coil on each core-piece, substantially as set forth.

2. In an armature, the combination, with a shaft, of two end-plates on the same, a series of core-pieces held radially between the end-plates, which core-pieces are provided with end-lugs at the outer and inner edges, bolts passed through the end-plates into the outer lugs of the core-pieces and a separate and independent coil on each core-piece, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MARTIN RAHNER.

Witnesses:

OSCAR F. GUNZ,
HARRY WILLARD GRIFFITHS.