(No Model.)

T. A. EDISON.

DYNAMO ELECTRIC MACHINE.

No. 297,582. Patented Apr. 29, 1884.

Fig. 2.

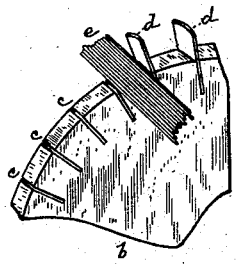
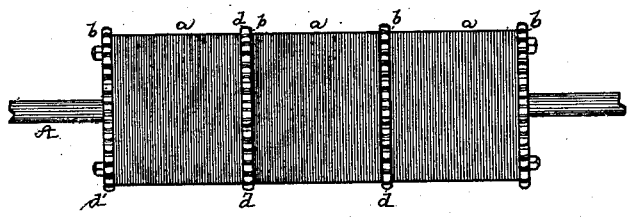


Fig. 1.



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UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY.

DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 297,582, dated April 29, 1884.

Application filed June 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Dynamo-Electric Machines, (Case No. 575,) of which the following is a specification.

In the operation of large dynamo-electric machines it is sometimes found that when a heavy load is on the machine the resistance to the revolution of the armature is such as to tend to draw the wires wound thereon out of place, a strain being produced on said wires which might in some cases be so great as to break the connections between a coil and the commutator.

The object of my invention is to obviate this difficulty.

The armature-core which I prefer to use consists of a number of thin magnetic disks strung on a shaft, or on an insulating sleeve or hub, as set forth in my Patents Nos. 264,649 and 265,785; and my invention consists in the use of supports attached to said disks, between which the wires are wound longitudinally. Such supports act to prevent the strain on the wires, as the latter bear against the supports, and cannot therefore be displaced.

The preferable manner of carrying my invention into effect is to provide several thicker disks arranged at intervals among the ordinary disks of the core. Each of these thicker disks is provided with a number of slots or notches in its periphery. In each of such notches is inserted a slip or thin piece of a suitable material, preferably an insulating substance. These slips project radially from the disks to which they are attached, longitudinal rows of projecting supports being thus formed upon the core. Vulcanized fiber is a very suitable material for these supports. The wires which form the inductive portion of the armature are wound longitudinally between the supports, which prevent the wire from being drawn out of place to an injurious extent.

The invention is illustrated in the annexed drawings, in which Figure 1 is a view in elevation of an armature-core embodying said invention, and Fig. 2 a view of a portion of one of the thicker plates of said core.

A is the armature-shaft, on which are placed the thin disks of magnetic metal *a a*, which may or may not be separated from the shaft by a sleeve or hub of insulating material. Several thicker plates, *b b*, are interposed among the plates *a*, and each plate *b* is provided with a number of slots or notches, *c c*, each notch on one plate being in a line with one on each of the other plates. In each notch is placed a thin slip, *d*, of vulcanized fiber or any other suitable material. The wires *e* upon the cylinder are wound between the slips *d*, which act as previously described.

What I claim is—

1. The combination, with a solid cylindrical armature-core composed of disks strung on a shaft, and coils wound longitudinally thereon, of supports projecting from certain of said disks, forming longitudinal projecting rows, between which said coils are wound, substantially as set forth.

2. The combination, with the ordinary disks of the armature-core, of interspersed disks having slots or notches in their edges, and projecting supports inserted in said slots or notches, substantially as set forth.

3. The combination, with the ordinary thin disks of the core, of the interspersed thicker disks provided with projecting supports for the coils, substantially as set forth.

This specification signed and witnessed this 25th day of June, 1883.

THOS. A. EDISON.

Witnesses:

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