(No Model.)

J. E. GILES.

ARMATURE FOR DYNAMO ELECTRIC MACHINES.

No. 288,051. Patented Nov. 6, 1883.

Fig. 1.

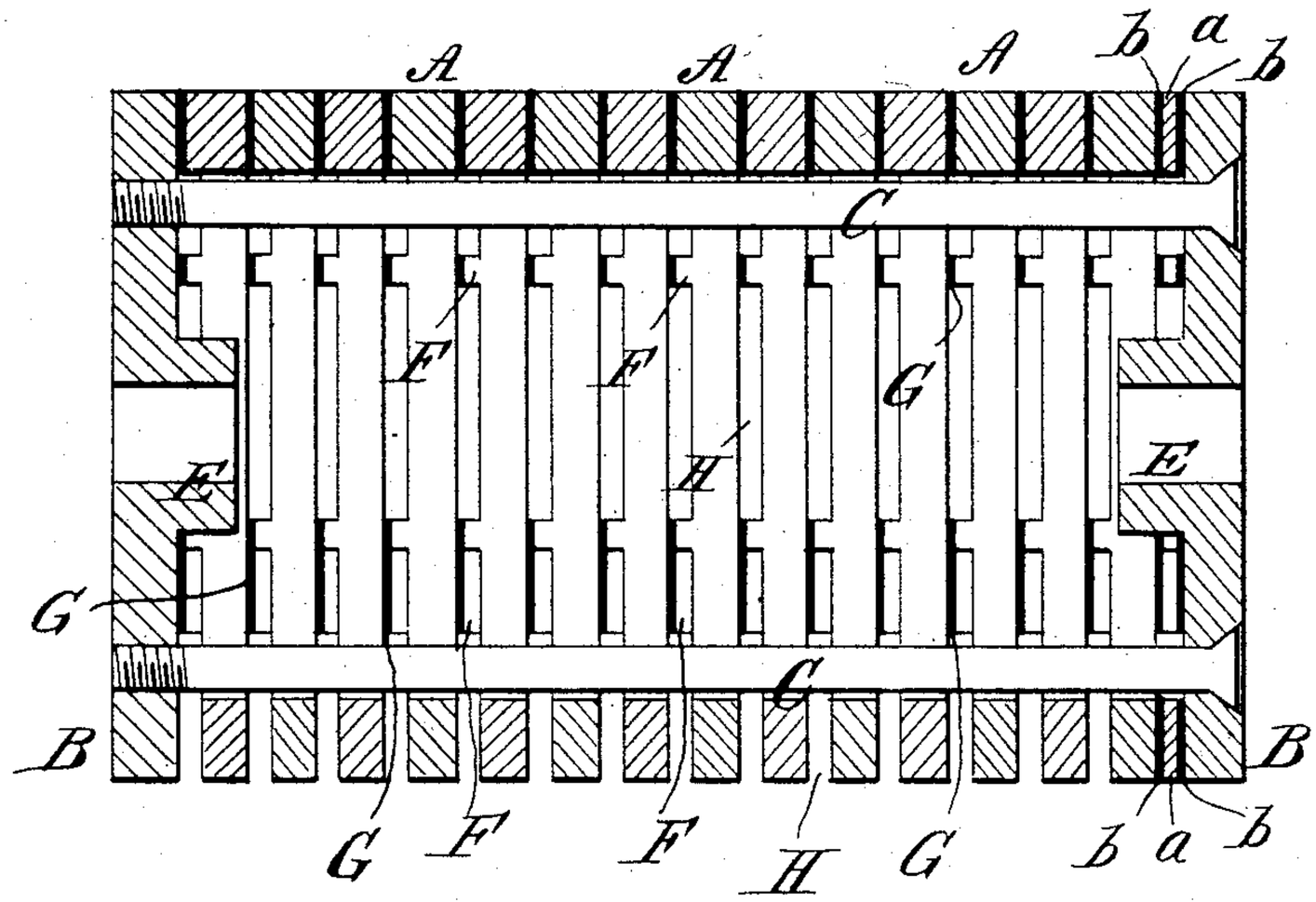


Fig. 2.

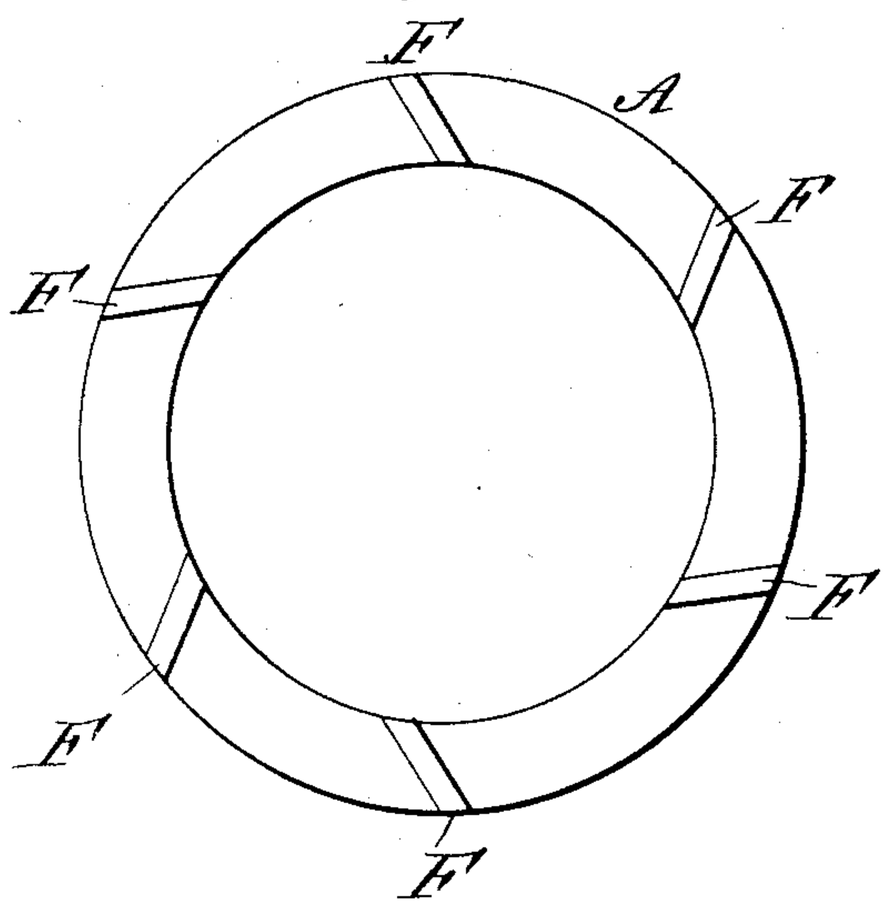
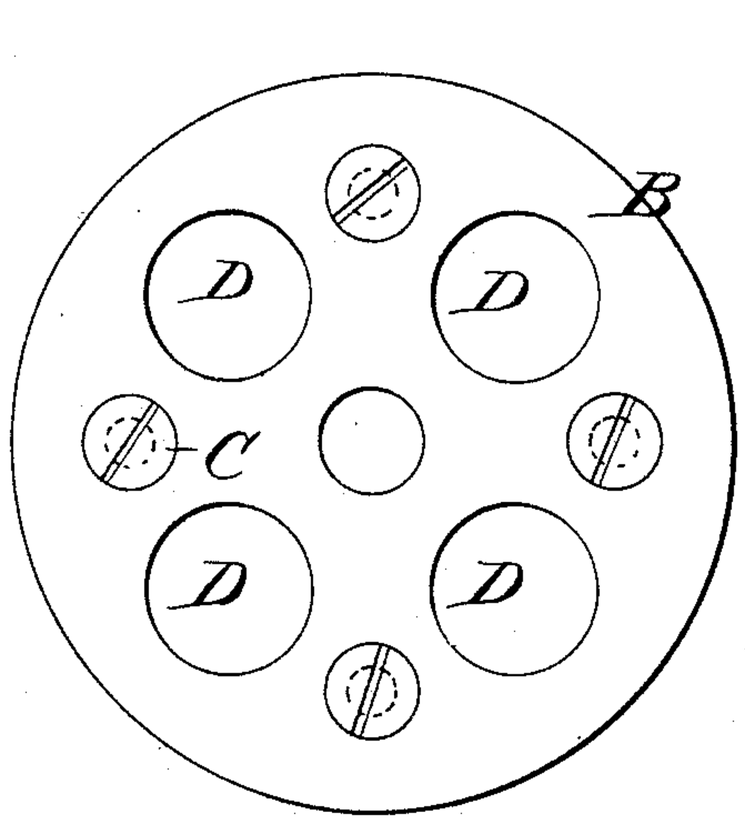


Fig. 3.



WITNESSES:

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J. EDWIN GILES, OF HAZLETON, PENNSYLVANIA.

ARMATURE FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 288,051, dated November 6, 1883.

Application filed September 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, J. EDWIN GILES, of Hazleton, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Armature for Dynamo and Magneto Electric Machines, of which the following is a full, clear, and exact description.

My invention relates to cores of revolving armatures of dynamo and magneto electric machines; and it consists in an armature-core built up of a series of iron rings placed axially in line, and having on one or both of their lateral faces a number of oblique ribs, each rib being separated from the adjacent ring by a strip of insulating material, the whole series of rings being clamped between apertured heads secured to the armature-shaft.

The object of the improvement is to secure air-circulation in the armature to carry off heat.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section of my improved armature. Fig. 2 is a side elevation of one of the armature-rings, showing the oblique ribs; and Fig. 3 is a side elevation of one of the armature-heads.

The armature-core is composed of a series of rings, A, preferably of cast-iron, clamped between heads B by means of bolts C, passing through one head and screwing into the other head, the bolts being wholly within the rings. Each head B has a number of air-apertures, D, and a boss, E, bored to receive the armature-shaft. Each ring A has upon one or both of its lateral faces a number of oblique ribs, F, uniformly arranged and spaced, and inclining away from the direction of rotation of the armature. These ribs F are separated from the face of an adjoining ring, or from the ribs projecting therefrom, by strips G of insulating material, which prevent electrical currents from traversing the core.

When the several rings forming the armature-core are placed together in the manner described, spaces H are left between the rings, through which the air entering the armature-core through the apertures D in the armature-heads is forced as the armature is revolved.

When the rings A are provided with ribs only on one side, the air-space between the plane surface of the last ring in the series and the head is formed by inserting strips *a*, which correspond in size and position with the ribs F, and are placed between strips *b* of insulating material.

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

1. In an armature for a dynamo or magneto electric machine, a series of rings provided with oblique ribs on one or both of their lateral faces, as specified.

2. In an armature for a dynamo or magneto electric machine, a series of rings provided with oblique ribs and separated from each other by insulating material, as specified.

3. In an armature for a dynamo or magneto electric machine, a series of rings provided with oblique ribs, and the apertured armature heads, in combination, as specified.

4. In an armature for a dynamo or magneto electric machine, the combination of a series of rings, A, provided with oblique ribs F, the apertured heads B, and the bolts C, placed wholly within the rings, as specified.

5. In an armature for a dynamo or magneto electric machine, the combination of the oblique strips *a* and insulating-strips *b* with the rings A, as specified.

J. EDWIN GILES.

Witnesses:
G. F. KISNER,
W. F. MARTZ.