(No Model.)

G. A. SCHEEFFER.

DYNAMO ELECTRIC MACHINE.

No. 267,263. Patented Nov. 7, 1882.

Fig. 1.

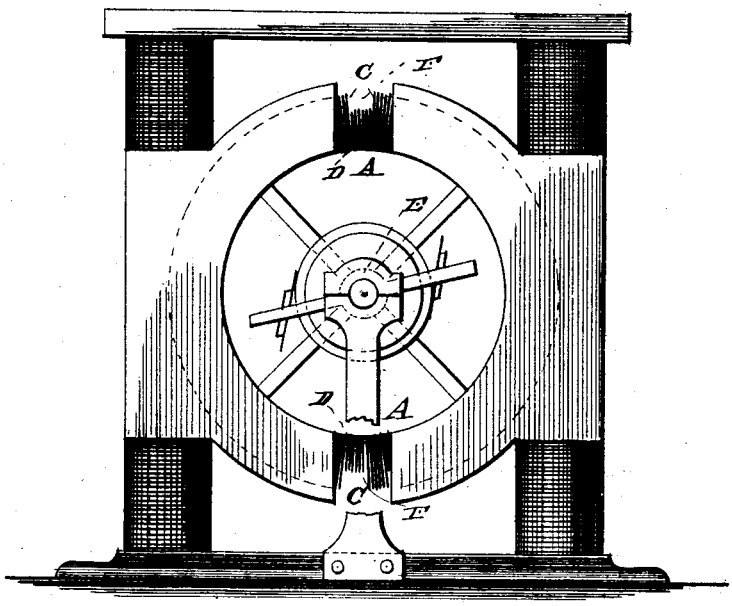


Fig. 2.

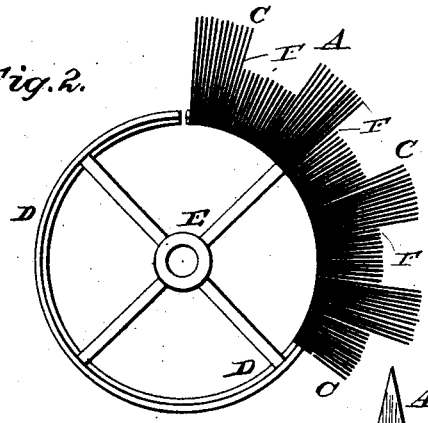


Fig. 3.

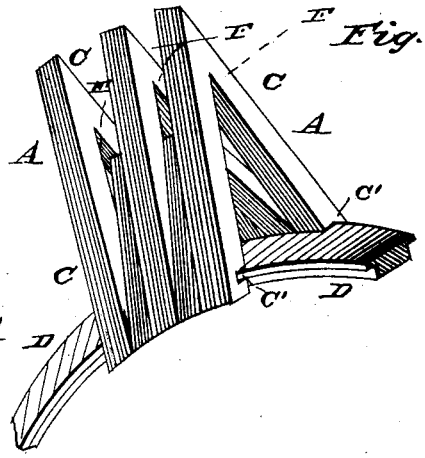
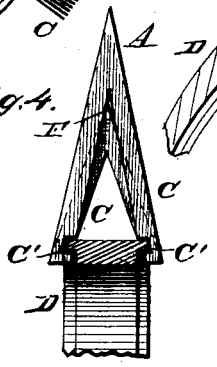


Fig. 4.



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UNITED STATES PATENT OFFICE.

GUSTAVE A. SCHEEFFER, OF EVANSVILLE, INDIANA.

DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 267,263, dated November 7, 1882.

Application filed August 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, G. A. SCHEEFFER, a citizen of the United States, and a resident of Evansville, in the county of Vanderburg and State of Indiana, have invented a new and valuable Improvement in Dynamo-Electric Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of my device. Fig. 2 is a side view of the brass ring detached from the machine. Fig. 3 is an enlarged sectional view of the same, and Fig. 4 is a detail view.

This invention consists in an annular armature for electro-dynamic machines, provided with a series of V-shaped soft-iron plates, arranged upon a ring and connected together by an inner ring, these plates being of two sizes and arranged in sets so that the sets of large and small plates shall alternate with each other around the armature. The wires of the helix are wound around the sets of smaller plates, and air-spaces for the free circulation of air are left between the sets of larger plates. Said plates are all connected, as hereinafter described.

Referring by letter to the drawings, A indicates an annular armature, provided with a peripheral series of V-shaped soft-iron pieces, C, which embrace the annulus, with the apices of their angles outward. These pieces have each two opposite notches, C′, formed in their inner sides, and receiving a brass ring, D, arranged within the armature, the said ring being provided with a spider consisting of a central hub or collar, E, having a series of radial arms connecting it with the brass ring. This hub or collar is designed to be fitted upon the rotary shaft of the machine, and can be keyed or otherwise secured thereon. The V-shaped pieces vary in length, and are arranged so that around the entire annulus there will be alternate sets of long and short pieces, and the insulated wire of the helix wound around the smaller pieces in the spaces between the larger ones, and connected with the commutator. When in motion a current of air passes through the spaces F between the sets of larger V-shaped pieces, and thereby serves to cool the parts. The armature thus formed and having the double-beveled edge involves more uniform magnetic action by the induction of the field-magnets, the edges of the polar extensions being more strongly developed than their interior by the above peculiar shape, and thus distributing the action more uniformly on the armature. The spaces F allow a free circulation of air, and at the same time space is afforded for the wire. When in motion, the current of air passes out through these openings, being propelled from the center by centrifugal force, and, passing over a large area of surface, cools the same.

Having thus described my invention, what I claim is—

1. An annular armature consisting of a ring provided with a series of V-shaped plates of different lengths arranged in sets, so as to leave a peripheral series of spaces for the circulation of air, substantially as described.

2. An armature provided with the different-sized V-shaped soft-iron plates connected by a brass ring, substantially as set forth.

3. The herein-described armature, provided with the V-shaped plates C, of soft iron, made of different sizes and arranged in sets of alternate sizes, the wire being wound around the smaller plates, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GUSTAVE A. SCHEEFFER.

Witnesses:

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ROBERT D. RICHARDSON.