(No Model.) 2 Sheets—Sheet 1.

S. F. VAN CHOATE.

ARMATURE FOR DYNAMO ELECTRIC MACHINES.

No. 302,062. Patented July 15, 1884.

Fig: 1.

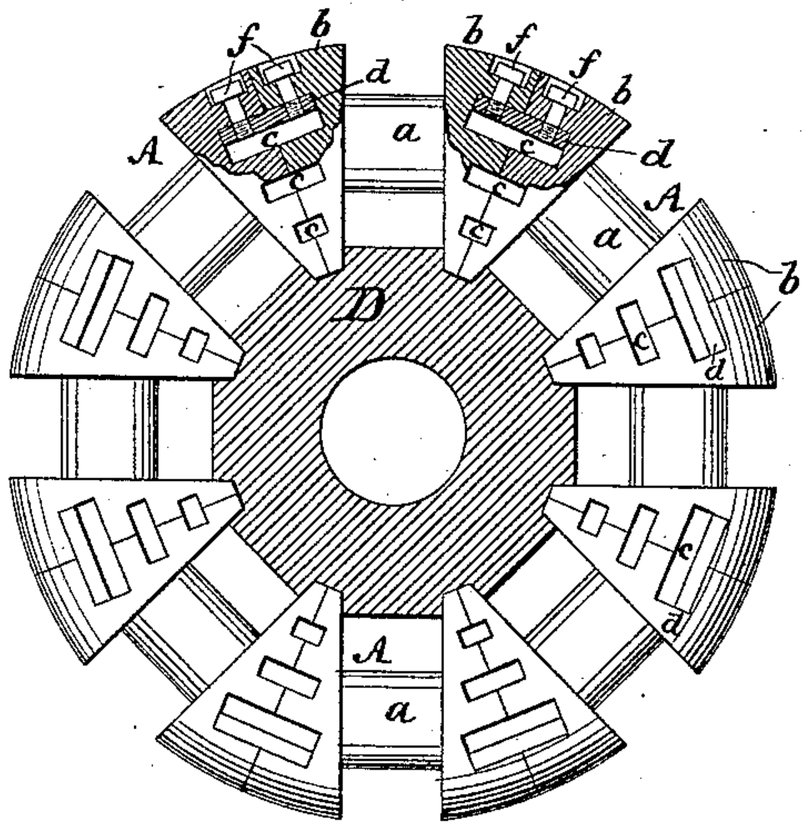


Fig: 4.

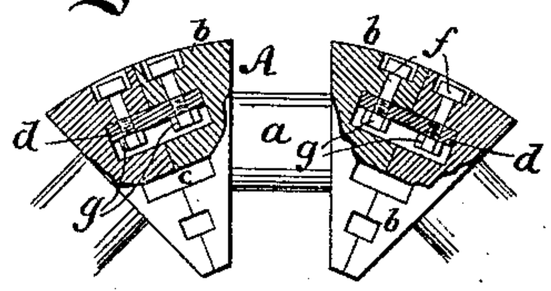


Fig: 2.

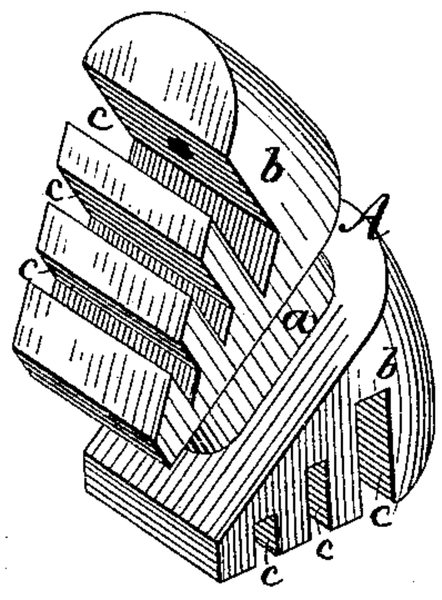
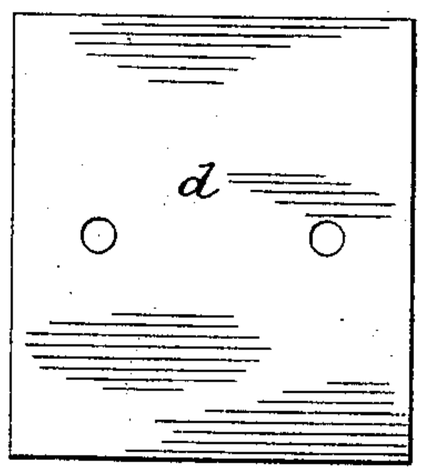


Fig: 3.



Witnesses:

A. H. Gerhard

Thos. Toomey

Inventor:

S. F. Van Choate

by his Att'y:

H. C. Townsend

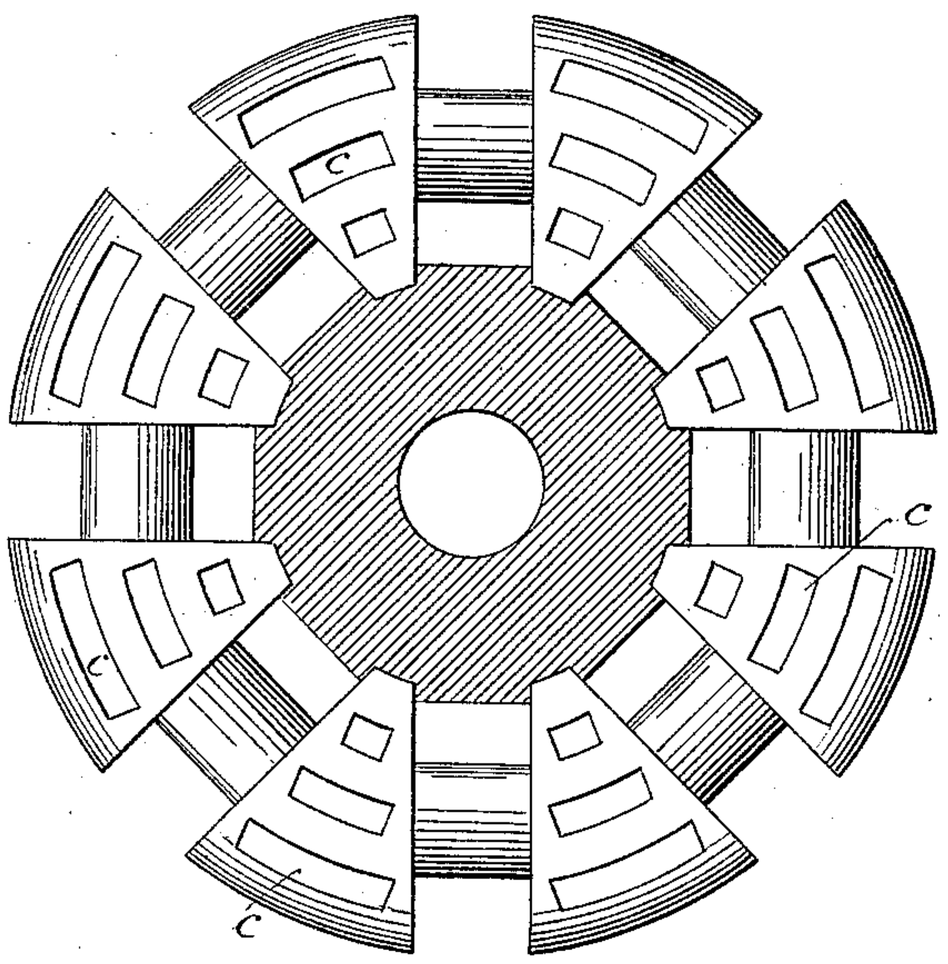
(No Model.) 2 Sheets—Sheet 2.

S. F. VAN CHOATE.

ARMATURE FOR DYNAMO ELECTRIC MACHINES.

No. 302,062. Patented July 15, 1884.

Fig. 5.



Witnesses:
Ernest Hohagen
Thos. Dooney

Inventor:
S. F. Van Choate,
By his Attorney: W. L. Townsend

UNITED STATES PATENT OFFICE.

SILVANUS F. VAN CHOATE, OF NEW YORK, N. Y.

ARMATURE FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 302,062, dated July 15, 1884.

Application filed October 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, SILVANUS F. VAN CHOATE, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Armatures for Dynamo-Electric Machines, of which the following is a specification.

My invention relates to the mechanical construction of armatures for dynamo-electric machines, and is intended more especially to provide a simple and effective device for securing together the parts of a sectional ring-armature made up of segmental sections, upon which coils or bobbins of wire are wound, and also to a novel form of armature designed to lighten the parts and to prevent the circulation of neutralizing currents, or the so-called "Foucault" currents, in the body of the armature, and to aid in keeping the armature cool while under the influence of the induction-currents.

To this end my invention consists in the novel construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view, partially in section, of a ring-armature having its parts constructed and secured together according to my invention. Fig. 2 is a perspective of one of the sections. Fig. 3 is a detail of a plate for connecting the various sections of the armature together. Figs. 4 and 5 illustrate modifications of the invention.

A A, &c., indicate the various armature-sections, each consisting of a central portion, *a*, upon which the coils of wire are wound, and enlarged heads *b*, which rest in grooves upon the hub D, and are secured in place thereon by the means described in my former Patent No. 286,241, or in any other suitable manner. The heads *b* are cut or notched at *c c c* in a transverse direction, as shown, across the end surfaces of the sections, for the purpose of reducing the weight, for aiding in keeping the armature cool, and also for preventing to a certain degree the formation of so-called "Foucault" currents, which would tend to reduce the efficiency. The prime object of the outer notch or groove, *c*, is to form, in conjunction with the groove in the abutting section, a cavity for a plate or bar, *d*, preferably of iron. The abutting sections are secured together by bolts *f* passing through the periphery of the heads *b*, and preferably countersunk. These bolts screw directly into the plates *d*, as shown in Fig. 1, or they may pass through the plates and be provided with nuts *g*, (see Fig. 4,) upon their ends below the plate, as may be desired. The plates and bolts thus applied bind the sections firmly together. The outer slot, *c*, is made sufficiently broad to contain the plate *d* and leave a free open space to form one of the slots before mentioned, or for the insertion of the nuts *g* in case nuts are used.

Any proper number of slots to produce the results desired may be formed in the abutting heads. In case the slots should produce a humming noise when the armature is revolved, they may be plugged with wood or other suitable non-magnetic material.

The slots *c* may be cut transversely or laterally through a solid or non-sectional armature with the beneficial effects before described of improving the efficiency and reducing the weight of the armature. In such case the bolts and plates would be dispensed with. This modification is illustrated in Fig. 5.

What I claim as my invention is—

1. In an armature for a dynamo-electric machine, transverse or lateral grooves or slots extending entirely through the armature from one side to the other, as and for the purpose described.

2. In a sectional armature, segmental sections having lateral or transverse grooves or slots formed in their abutting heads or ends, as and for the purpose described.

3. The combination, in a sectional armature, of sections having slots or grooves in their abutting ends, plates in said grooves, and means for securing the plates to the sections.

Signed at Boston, in the county of Suffolk and State of Massachusetts, this 23d day of October, A. D. 1883.

SILVANUS F. VAN CHOATE.

Witnesses:

ANDREAS BLUME,

WM. S. LELAND.