

(No Model.)

C. COERPER.

DYNAMO ELECTRIC MACHINE.

No. 353,414.

Patented Nov. 30, 1886.

fig. 2.

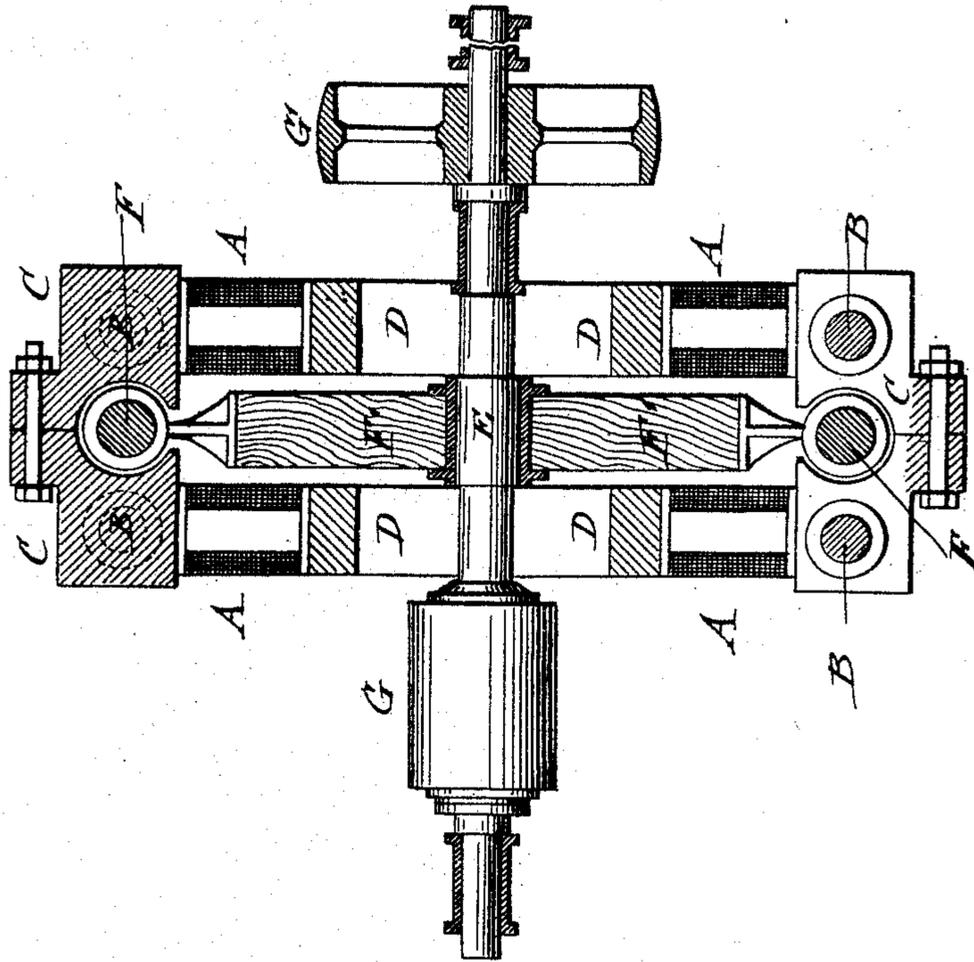
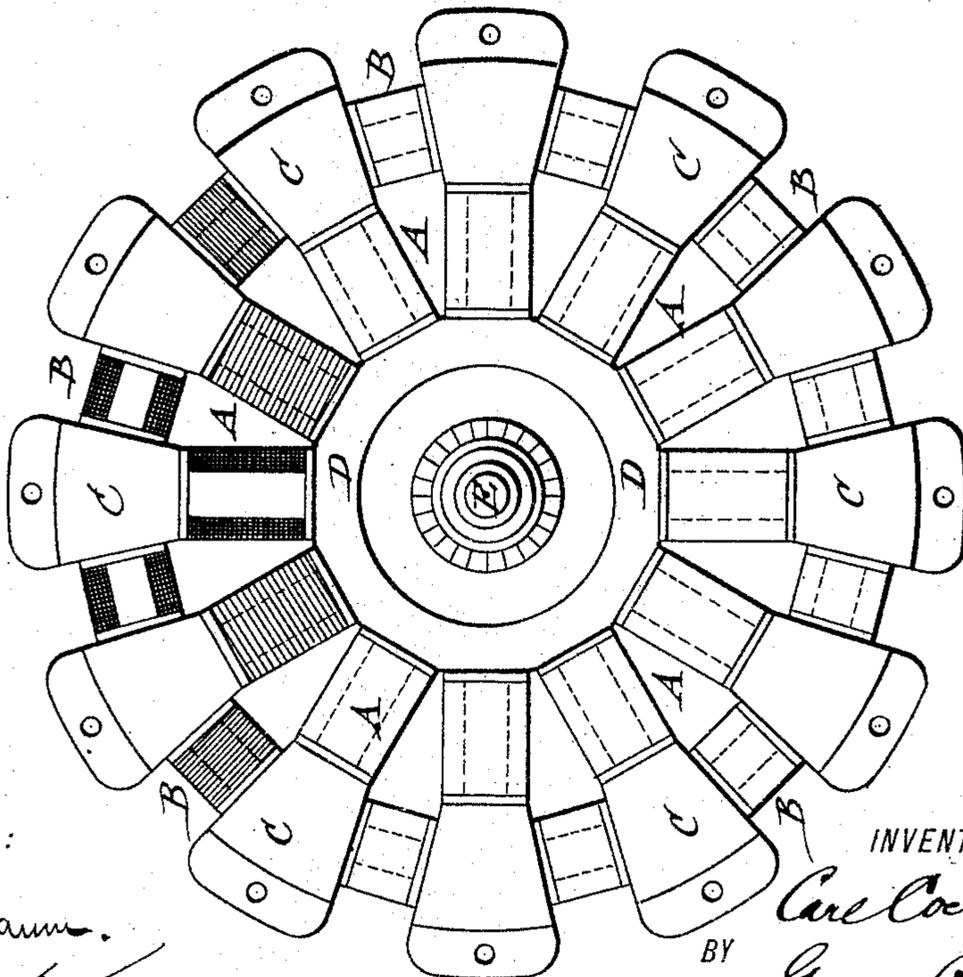


fig. 1.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 353,414, dated November 30, 1886.

Application filed May 6, 1886. Serial No. 201,294. (No model.) Patented in Belgium April 19, 1886, No. 72,801.

*To all whom it may concern:*

Be it known that I, CARL COERPER, a subject of the King of Prussia, German Empire, residing at the city of Cologne-on-the Rhine, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Dynamo-Electric Machines, of which the following is a specification.

This invention relates to an improved dynamo-electric machine in which an effective magnetic field is obtained by a novel arrangement of the field-magnets at both sides of the armature; and the invention consists of a dynamo-electric machine in which the magnetic field is formed by a number of electro-magnets, which are arranged at both sides of and parallel to the plane of rotation of the armature, and connected by transverse pole-pieces, which are again connected by short intermediate electro-magnets, also parallel to the plane of rotation of the armature, as will appear more fully hereinafter, and finally be pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, and Fig. 2 a vertical transverse section, of my improved dynamo-electric machine.

Similar letters of reference indicate corresponding parts.

In the drawings, A A represent the field-magnets, which are supported on stationary ring-shaped frames D D, through the center of which passes the driving-shaft E, on which is arranged a commutator, G, and a driving-pulley, G'. The ring-shaped armature F is supported by a disk-shaped frame immediately between the field-magnets A A, which extend radially or otherwise from the driving-shaft E, at both sides of and parallel to the plane of rotation of the armature F.

The faces of the pole-pieces C of the electro-magnet correspond to the shape of the armature F, and are connected by transverse bolts,

so that they almost entirely surround the armature and form an effective magnetic field for the same.

To increase the force and inductive action of the pole-pieces, or, in other words, to increase the force of the magnetic field, the pole-pieces C C are connected by short intermediate electro-magnets B, which are arranged sidewise of and parallel to the plane of rotation of the armature F, as shown in Fig. 1. The electro-magnets B re-enforce the action of the field-magnets and produce a very effective magnetic field and dynamo-electric machine of very simple and comparatively cheap construction.

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

1. In a dynamo-electric machine, the combination of radial field-magnets arranged at both sides of and parallel to the plane of rotation of the armature, transverse pole-pieces at the outer ends of the field-magnets, bolts for connecting said pole-pieces, and an armature rotating between the pole-pieces, substantially as set forth.

2. In a dynamo-electric machine, the combination of field-magnets arranged at both sides of and parallel to the plane of rotation of the armature, transverse pole-pieces connecting the field-magnets, an armature rotating between the pole-pieces, and intermediate electro-magnets connecting the pole-pieces at the sides of the armature and parallel to the plane of rotation of the same, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL COERPER.

Witnesses:

A. MÜHLE,  
B. ROI.