

(No Model.)

C. COERPER.  
DYNAMO ELECTRIC MACHINE.

No. 353,414.

Patented Nov. 30, 1886.

fig. 2.

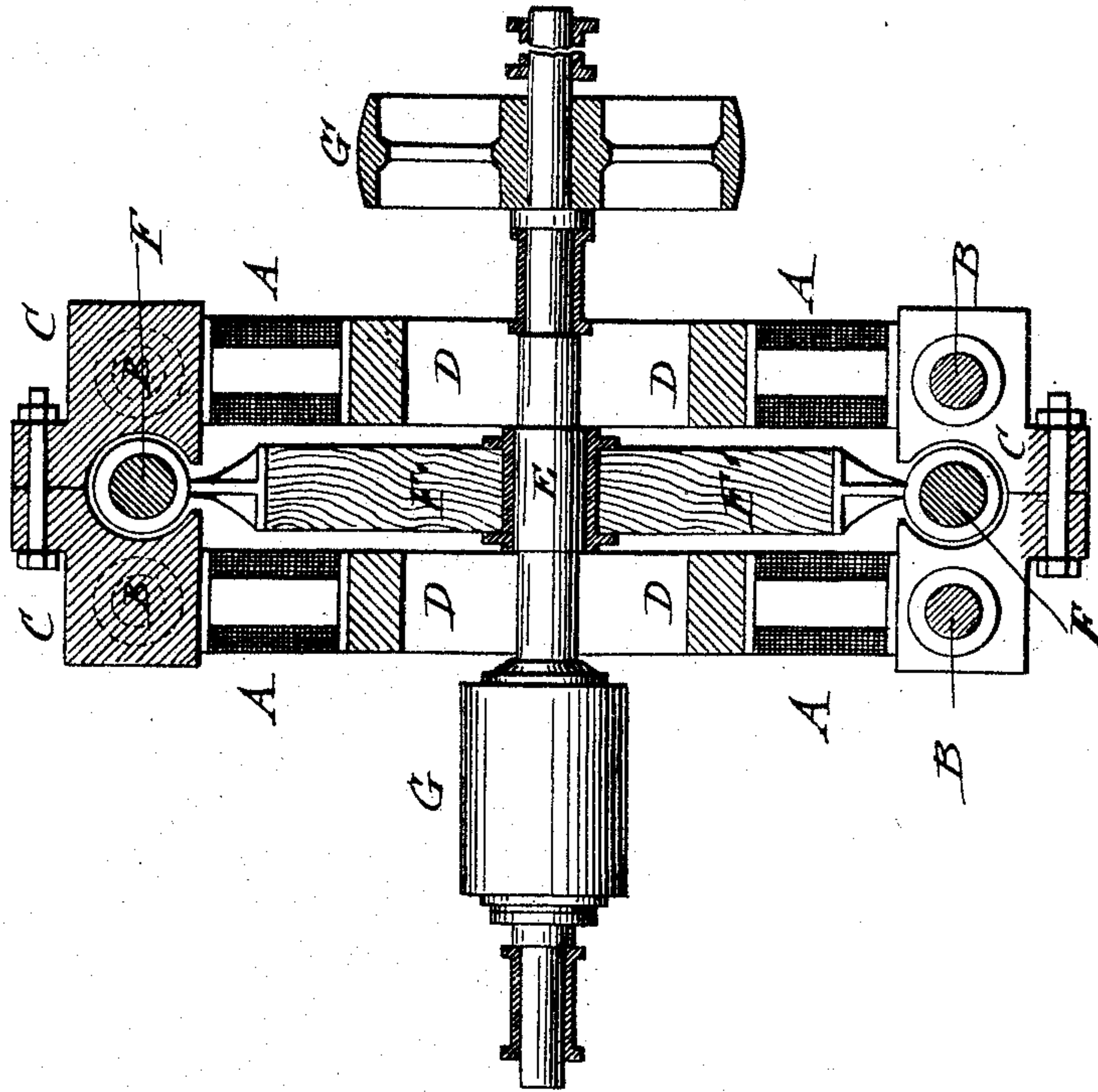
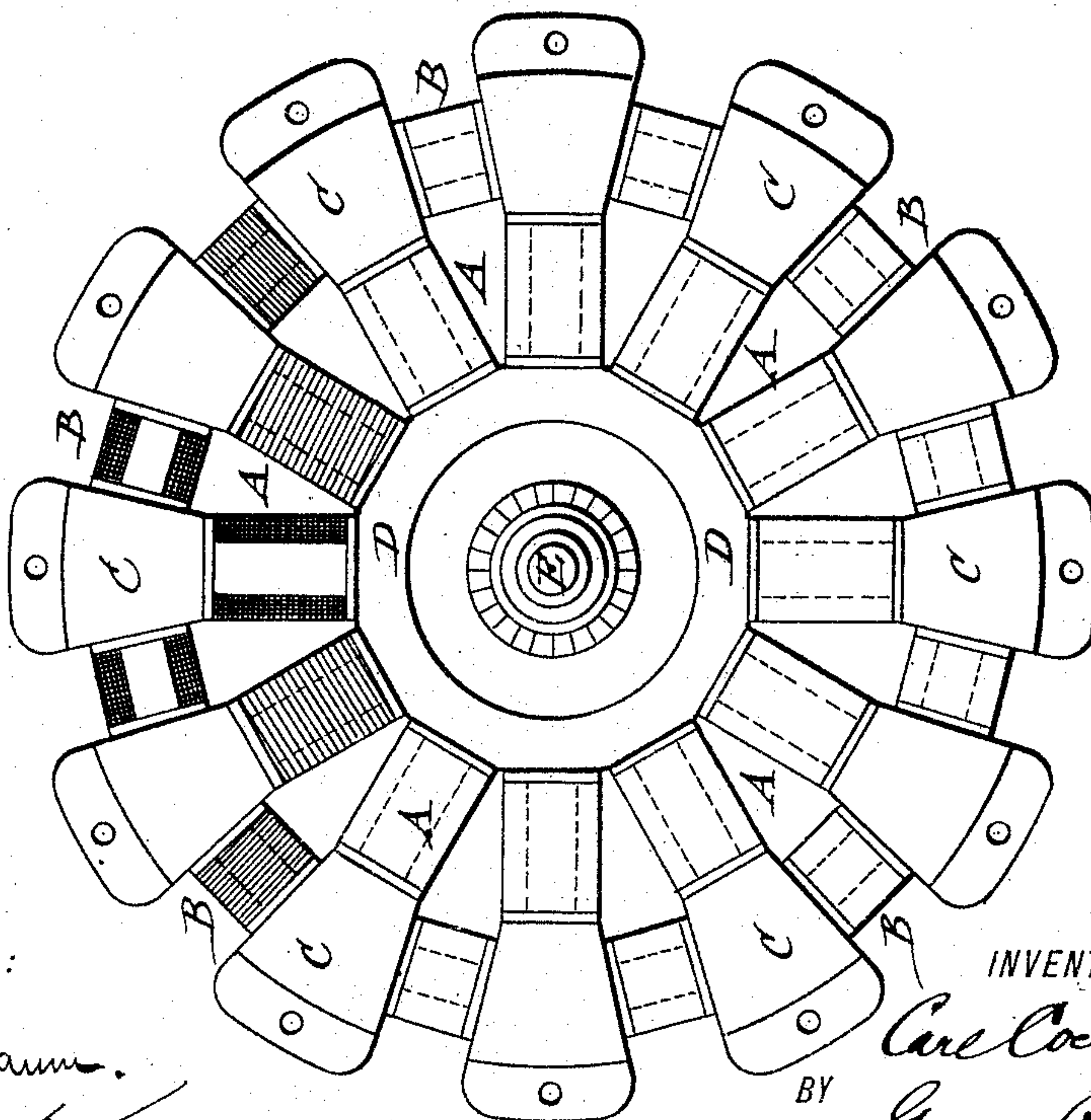


fig. 1.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CARL COERPER, OF COLOGNE-ON-THE-RHINE, PRUSSIA, ASSIGNOR TO THE  
HELIOS ACTIENGESSELLSCHAFT FÜR ELEKTRISCHES LICHT UND TELE-  
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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 sub-  
ject of the King of Prussia, German Empire,  
residing at the city of Cologne-on-the Rhine,  
5 in the Kingdom of Prussia, German Empire,  
have invented certain new and useful Improve-  
ments in Dynamo-Electric Machines, of which  
the following is a specification.

This invention relates to an improved dy-  
10 namo-electric machine in which an effective  
magnetic field is obtained by a novel arrange-  
ment of the field-magnets at both sides of the  
armature; and the invention consists of a dy-  
namo-electric machine in which the magnetic  
15 field is formed by a number of electro-mag-  
nets, which are arranged at both sides of and  
parallel to the plane of rotation of the arma-  
ture, and connected by transverse pole-pieces,  
which are again connected by short interme-  
20 diate 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 rep-  
25 resents a side elevation, partly in section, and  
Fig. 2 a vertical transverse section, of my im-  
proved dynamo-electric machine.

Similar letters of reference indicate corre-  
sponding parts.

30 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-  
35 pulley, G'. The ring-shaped armature F is  
supported by a disk-shaped frame interme-  
diately between the field-magnets A A, which  
extend radially or otherwise from the driving-  
shaft E, at both sides of and parallel to the  
40 plane of rotation of the armature F.

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

so that they almost entirely surround the ar-  
mature and form an effective magnetic field for 45  
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 elec- 50  
tro-magnets B, which are arranged sidewise of  
and parallel to the plane of rotation of the ar-  
mature F, as shown in Fig. 1. The electro-  
magnets B re-enforce the action of the field-  
magnets and produce a very effective mag- 55  
netic field and dynamo-electric machine of  
very simple and comparatively cheap con-  
struction.

Having thus described my invention, I claim  
as new and desire to secure by Letters Patent— 60

1. In a dynamo-electric machine, the com-  
bination of radial field-magnets arranged at  
both sides of and parallel to the plane of rota-  
tion of the armature, transverse pole-pieces at  
the outer ends of the field-magnets, bolts for 65  
connecting said pole-pieces, and an armature  
rotating between the pole-pieces, substantially  
as set forth.

2. In a dynamo-electric machine, the com-  
bination of field-magnets arranged at both 70  
sides of and parallel to the plane of rotation of  
the armature, transverse pole-pieces connect-  
ing the field-magnets, an armature rotating be-  
tween the pole-pieces, and intermediate elec-  
tro-magnets connecting the pole-pieces at the 75  
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 sub- 80  
scribing witnesses.

CARL COERPER.

Witnesses:

A. MÜHLE,  
B. ROI.