

(No Model.)

3 Sheets—Sheet 1.

E. P. WARNER.

FIELD MAGNET FRAME FOR DYNAMO ELECTRIC MACHINES.

No. 480,049.

Patented Aug. 2, 1892.

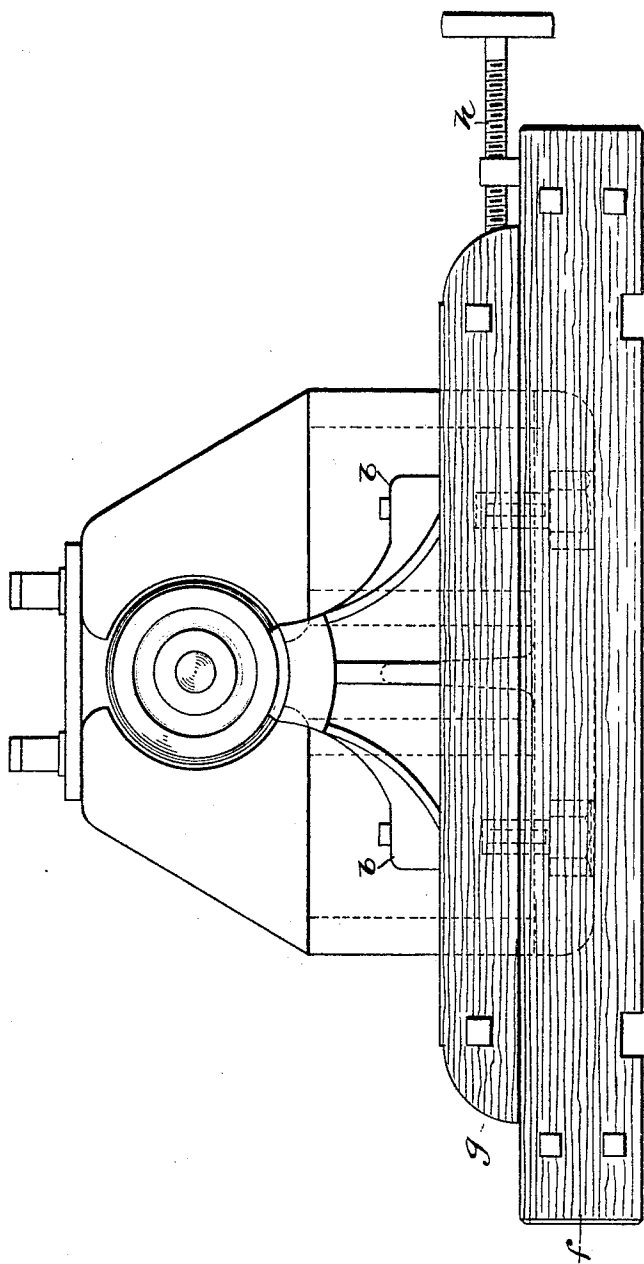


Fig. 1.

Witnesses.

C. G. Hawley

Geo. R. Parker.

Inventor.

Ernest P. Warner.

E. George Barton
Attorney

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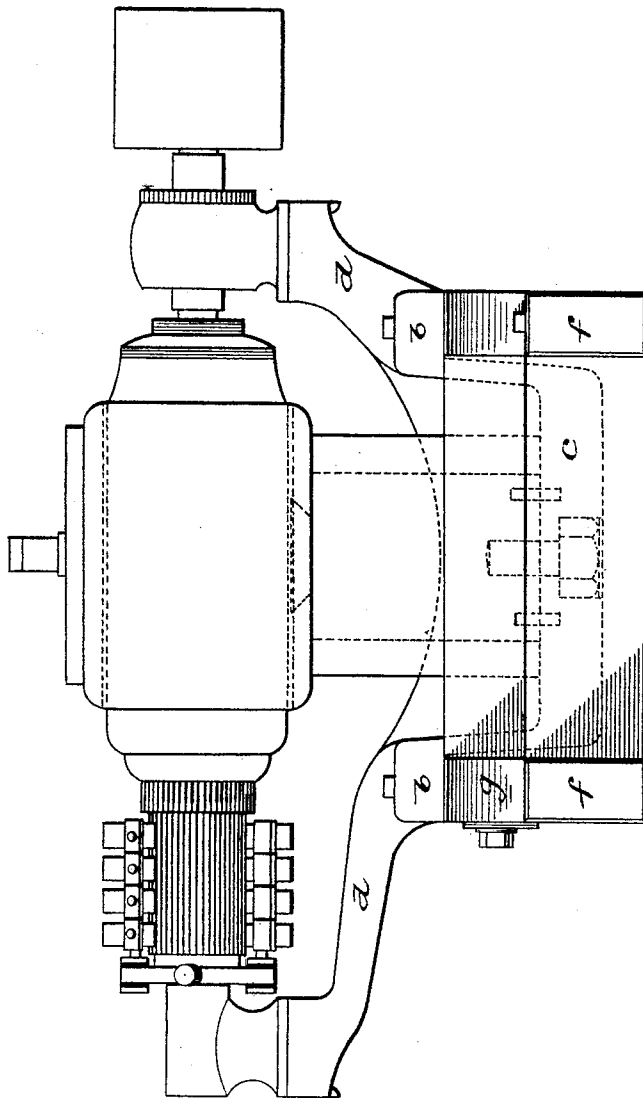


Fig. 2.

Witnesses.

C. Hawley.
Geo. R. Parker.

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(No Model.)

3 Sheets—Sheet 3.

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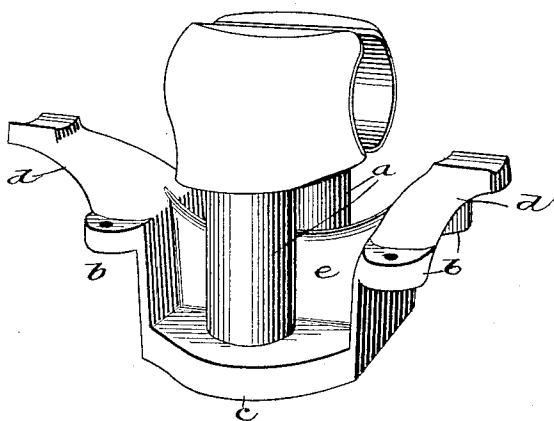


Fig. 3.

Witnesses.

C. Hawley.
Geo. A. Parker.

Inventor.

Ernest P. Warner.

By George B. Burton
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UNITED STATES PATENT OFFICE.

ERNEST P. WARNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

FIELD-MAGNET FRAME FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 480,049, dated August 2, 1892.

Application filed February 10, 1890. Serial No. 339,916. (No model.)

To all whom it may concern:

Be it known that I, ERNEST P. WARNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Field-Magnets for Dynamos, (Case No. 30,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to the construction of the framework of dynamo-electric machines; and its objects are, first, to reduce the weight of the frame for a given capacity; second, to reduce the vibrations of the machine by giving it a stable base; third, to make the parts of the machine readily accessible by bringing the armature at the proper elevation; fourth, in forming the feet or supports for the field-magnet frame so that when resting on the sliding carriage the base of the machine may extend downward nearly to the floor and be inclosed within the framework of the sliding carriage.

Heretofore in dynamos having field-magnets of the inverted-horseshoe type the armature has been raised inconveniently high, since an iron sub-base has been thought desirable below the heel-bar. Such a sub-base I have found objectionable, first, on account of its electrical conductivity, increasing the liability of ground connections from the framework of the dynamo, and, second, in bringing the armature so high from the floor as to render the machine unstable.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a rear elevation showing the framework of a dynamo-electric machine mounted upon the sliding carriage. Fig. 2 is a side elevation thereof. Fig. 3 is a perspective view of the framework of the machine, including the base, cores, and pole-pieces, and showing the feet or supports raised above the heel-bar and the arms supporting the journal-bearings raised above the feet and extending outwardly.

Like parts are indicated by similar letters of reference throughout the different figures.

It will be understood that the cores *a* of the

field-magnet are wound in the usual manner for any particular character of dynamo that may be desired.

The armature may be of the type described and claimed in my application, Serial No. 325,543, (Case No. 25,) for armature-winding for dynamo-electric machines, filed September 30, 1889.

My present invention, it will, however, be understood, is not limited to any particular type of armature.

The construction of the framework, which constitutes the most important feature of my invention, consists in the feet or supports *b*, raised above the heel-bar *c*, the arms *d*, forming the support for the journal-bearings of the armature, and the strut or brace *e*, extending across between the cores to give rigidity to the frame. This frame or casting is mounted upon a sliding carriage consisting of the base *f* and the sliding frame *g*, adapted to be moved by a screw *h* to move the machine so as to give the proper tension to the driving-belt.

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

1. In the field-magnet frame or casting for a dynamo-electric machine, the combination, with the feet or supports and the heel-bar, said supports being raised above the heel-bar, of the arms extending outwardly from said supports, and a strut between said feet or supports, substantially as and for the purpose specified.

2. The combination, in the field-magnet frame or casting for a dynamo-electric machine, of the feet raised above the heel-bar thereof, said heel-bar, the movable frame of the carriage upon which said feet are placed, and arms curved outwardly and extending above said feet, and the bearings of the armature supported upon said arms, substantially as and for the purpose specified.

3. The combination, in the field-magnet frame of a dynamo-electric machine, of the feet or supports thereof raised above the heel-bar, the sliding frame supporting the said feet, and the heel-bar extending downwardly, and the stationary and movable parts of the car-

riage inclosing said heel-bar, substantially as specified.

4. In the field-magnet frame for a dynamo-
electric machine, the combination, with the
5 feet or supports thereof, of the heel-bar, said
feet or supports being raised above the heel-
bar, the arms extending above said feet or
supports, and the journal-bearings of the ar-
mature resting thereon, substantially as and
10 for the purpose specified.

5. The field-magnet frame for a dynamo-
electric machine, consisting in the combina-
tion, with the pole-pieces and the cores, of

the heel-bar *c*, extending downwardly below
the supporting-feet *b*, said supporting-feet *b*, 15
the arms *d*, and the strut *e* for bracing the
feet, said strut being placed between the
cores, substantially as and for the purpose
specified.

In witness whereof I hereunto subscribe my 20
name this 15th day of October, A. D. 1889.

ERNEST P. WARNER.

Witnesses:

C. G. HAWLEY,
ELLA EDLER.