

(No Model.)

S. H. SHORT.

CONSTRUCTION OF DYNAMO ELECTRIC MACHINES.

No. 565,930.

Patented Aug. 18, 1896.

Fig. 2.

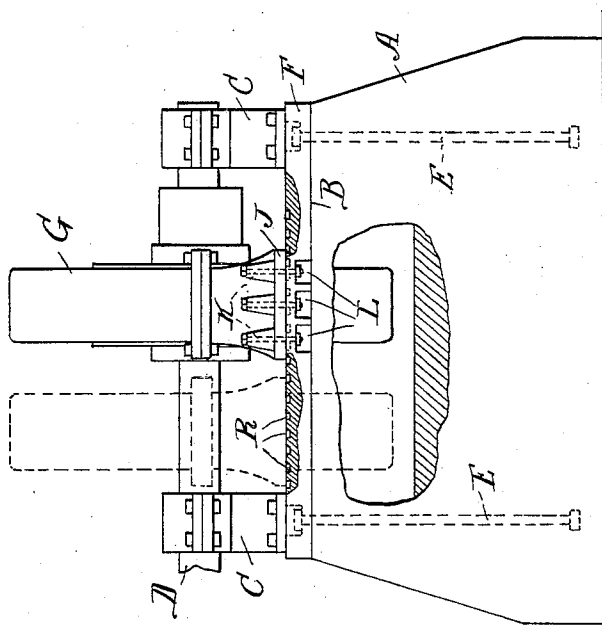
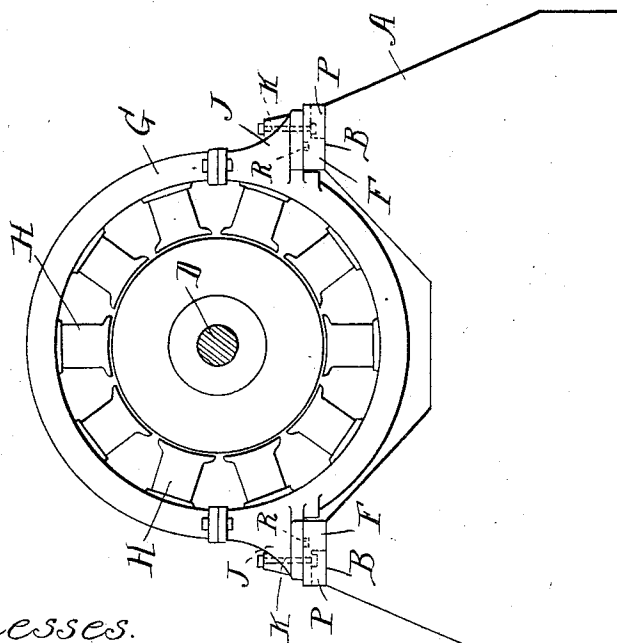


Fig. 1.



Witnesses.

Wm. M. Rheem.
Wm. F. Manning

Inventor
Sidney H. Short
by
Mow & Darby Attys.

UNITED STATES PATENT OFFICE.

SIDNEY H. SHORT, OF CLEVELAND, OHIO.

CONSTRUCTION OF DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 565,930, dated August 18, 1896.

Application filed May 4, 1896. Serial No. 590,222. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY H. SHORT, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Construction of Electric Machines, of which the following is a specification.

This invention relates to the construction of dynamos.

The object of the invention is to provide a construction of dynamos wherein access to the field-bobbins or to the armature for inspection and repair is facilitated.

The invention consists, substantially, in the construction, combination, location, and arrangement, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in end elevation, the shaft being in transverse section, of a structure embodying my invention. Fig. 2 is a view in side elevation of the same, the shaft being broken away and parts being broken out and in vertical section.

Heretofore in the construction of dynamos, and particularly dynamos for large plants, it has been the custom to construct the field in sections suitably bolted together. In such cases, when it was necessary to inspect or repair the bobbins forming the field or the armature of the dynamo, a suitable derrick or arm must be provided for lifting or elevating one of the sections of the field in order to permit access to the field-bobbins or the armature. In many cases, however, it is not convenient to provide a crane suitable for lifting the heavy casting and weight of the field-section of the dynamo.

I will now describe a construction and arrangement wherein the dynamo is suitably supported and at the same time access to the field-bobbins and to the armature of the machine is facilitated without the necessity of employing a crane or hoisting apparatus.

In the drawings, A designates a suitable base or foundation of masonry or other construction having the side ledges indicated at B and the bearings C for the shaft D of the dynamo. Upon the side ledges B, I mount the tracks or bars F, suitably bolting the same

to the masonry work or foundation A, as indicated at E, the heads of the bolts being received in countersunk seats in the bars F, as shown. The casting G, upon which are supported the field-bobbins H, is provided with lugs or projections J, adapted to receive bolts K, by which said casting is bolted to the side bars F, said side bars being provided with countersunk seats L on the under side thereof adapted to receive the heads of said bolts K, said countersunk seats L extending to the outer edge of said bars F, as indicated in dotted lines in Fig. 1 and in full lines in Fig. 2, whereby easy access is had to remove the nuts on said bolts K. In the top surface of the side bars F, I provide a series of recesses R. From this description it will be seen that by removing the nuts on bolts K and then the bolts themselves the entire casting G, upon which are supported the field magnets and coils, may be shifted lengthwise of the shaft D, for instance, into the position shown in dotted lines in Fig. 2, by means of a crow-bar or other handy tool inserted in the recess R, the side bars F serving as tracks along which the projections J slide, as will be readily understood, thereby removing the entire field of the dynamo from the position thereof surrounding the armature, and hence allowing easy access to be had to said field-coils.

It will be understood that many alterations and variations in details of construction will readily suggest themselves to persons skilled in the art and still fall within the spirit and scope of my invention. I do not desire, therefore, to be limited or restricted to the specific details shown and described; but

What I do claim as new and useful and of my own invention, and desire to secure by Letters Patent, is—

1. In an apparatus of the class described, the combination with a fixed base, having flat side bars arranged on opposite sides thereof and suitably secured thereto, of a casting forming the field-support arranged to rest at the opposite sides thereof upon said flat side bars, and means for detachably securing said casting to said side bars, whereby the said casting may be detached from said side bars and slid there along to uncover the armature; as and for the purpose set forth.

2. In an apparatus of the class described,

a supporting-base, side bars suitably secured to said base, said side bars provided with accessible openings on the under side thereof, a field-supporting frame, bolts for securing
5 said frame to said side bars, the said bolts arranged to be received in said accessible openings, as and for the purpose set forth.

3. In an apparatus of the class described, a supporting - base, side bars and recesses
10 formed in the upper surface of said side bars, and a field-supporting frame detachably secured to said side bars, as and for the purpose set forth.

4. In an apparatus of the class described,
15 a supporting-base, a field-supporting casting provided with projecting lugs or bosses adapted to be supported on said base, means for detachably securing said lugs or bosses to said base and means whereby when said lugs are
20 detached from said base said casting may be

slid along said base, as and for the purpose set forth.

5. In an apparatus of the class described, a supporting-base, an armature-shaft journaled therein in fixed bearings, side bars secured to said base, a circular ring arranged to encircle said shaft and forming the field-support, and having lugs arranged to rest upon and to be detachably secured to said side bars; and means for shifting said ring lengthwise of said shaft; as and for the purpose set forth. 25 30

In witness whereof I have hereunto set my hand, this 27th day of April, 1896, in the presence of two subscribing witnesses.

SIDNEY H. SHORT.

Witnesses:

R. T. BONE,

M. A. KENSINGER.