(No Model.)

B. G. LAMME.

SUPPORT FOR FIELD MAGNET COILS.

No. 556,891. Patented Mar. 24, 1896.

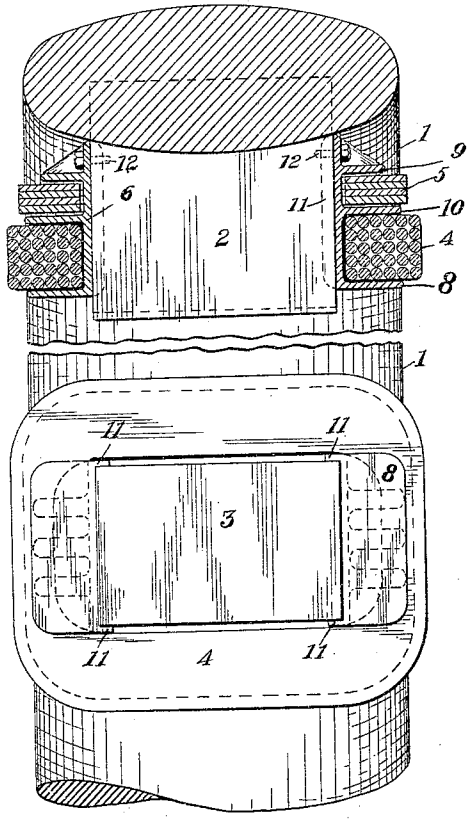

Fig. 1.

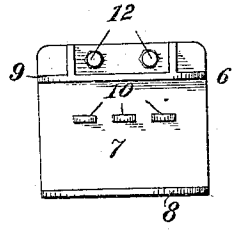

Fig. 2.

WITNESSES:
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UNITED STATES PATENT OFFICE.

BENJAMIN G. LAMME, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, OF SAME PLACE.

SUPPORT FOR FIELD-MAGNET COILS.

SPECIFICATION forming part of Letters Patent No. 556,891, dated March 24, 1896.

Application filed September 4, 1895. Serial No. 561,408. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN G. LAMME, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Supports for Field-Magnet Coils, (Case No. 650,) of which the following is a specification.

My invention relates to field-magnets for electrical machines and has special reference to means for supporting the coils upon the pole-pieces of such machines.

The object of the invention is to provide a simple and inexpensive device which may be applied to the coils before they are placed upon the pole-pieces, which are readily attached to and detached from the pole-pieces, and which when used in connection with a compound-wound machine will serve not only to support the coils but to separate them and afford ventilating-spaces between and around them.

Referring to the drawings, Figure 1 is a portion of a field-magnet of a compound-wound machine, two pole-pieces at right angles to each other being shown, and one set of coils and their supporting hangers or brackets being shown in section. Fig. 2 is a side elevation of one of the brackets or hangers.

Referring now to the drawings in detail, 1 is a portion of the field-magnet frame, and 2 and 3 two of the usual laminated pole-pieces cast into the frame or main portion 1.

4 is the main exciting field-magnet coil, of the usual construction, and 5 is a compounding-coil in the form of a coiled strip or bar.

6 is the hanger or bracket having a main or body portion 7 and preferably provided on its front face with two integral flanges 8 and 9 projecting at substantially right angles to the body portion 7. Between these flanges 8 and 9, and also projecting on the same side substantially at right angles to the body portion 7, are flanges or fingers 10. Instead of a plurality of such flanges or fingers a single one might be employed; but I prefer the construction shown, for the reason that it gives increased air-space and therefore the proper ventilation for keeping down the temperature of the coils. Upon the opposite side or face of the body portion 7 are two flanges 11, which are arranged at right angles to the flanges on the other side of the plate and are intended for engagement with the sides of the pole-piece. These flanges 11, while desirable in many cases, may be omitted if desired. The body portion 7 is provided with suitable bolt or screw holes, as shown, for insertion of the bolts or screws 12, which extend into the pole-pieces and hold the brackets or hangers in position. One of these brackets is employed on each of two sides of the pole-piece, as indicated in the drawings.

By employing my invention as above described it is practicable to separately wind and insulate each coil before it is applied to the machine. The hangers or brackets may then be applied to the coils and then slipped upon the pole-pieces and quickly and securely fastened thereto. The coils are thus independently supported in such manner that the air may circulate freely between and around them and thus prevent an objectionable rise in temperature.

It will be seen that the coils may be readily removed by merely removing the bolts or screws which hold the brackets or hangers in position, and any coil may be repaired or be replaced by a new one without impairing any of the others.

While I have illustrated and described the invention as applicable to compound-wound machines, it is obvious that it might be employed in machines having a single coil upon each pole-piece, and also that the bracket might be modified in form without departing from the invention.

I claim as my invention—

1. A bracket or hanger for field-magnet coils having coil-supporting flanges projecting substantially at right angles to one face of the main or body portion thereof, and pole-piece-engaging flanges projecting from the opposite face of the body portion, substantially as described.

2. A bracket or hanger for field-magnet coils, having outer coil-supporting flanges and intermediate flanges or fingers projecting

from the main or body portion thereof and substantially at right angles thereto, substantially as described.

3. A coil-supporting bracket or hanger for compound-wound field-magnets comprising a main or body portion, two integrally-formed outer flanges and a plurality of intermediate flanges or fingers, substantially as described.

4. The combination with the field-magnet of an electrical machine, of two exciting-coils for each pole-piece, a pair of supporting brackets or hangers having supporting and separating flanges for the coils, and means for removably fastening said brackets to the pole-pieces, substantially as described.

5. A detachable bracket or hanger provided with flanges for separately supporting two coils of a compound-wound electrical machine, substantially as described.

6. A bracket or hanger for supporting field-magnet coils comprising a body portion in one plane and integral flanges in planes perpendicular thereto, and means for detachably fastening the body portion to a pole-piece, substantially as described.

In testimony whereof I have hereunto subscribed my name this 31st day of August, A. D. 1895.

BENJ. G. LAMME.

Witnesses:
WESLEY G. CARR,
HUBERT C. TENER.