(No Model.)

A. SCHMID.

BOBBIN FOR THE FIELD MAGNETS OF DYNAMOS.

No. 383,657. Patented May 29, 1888.

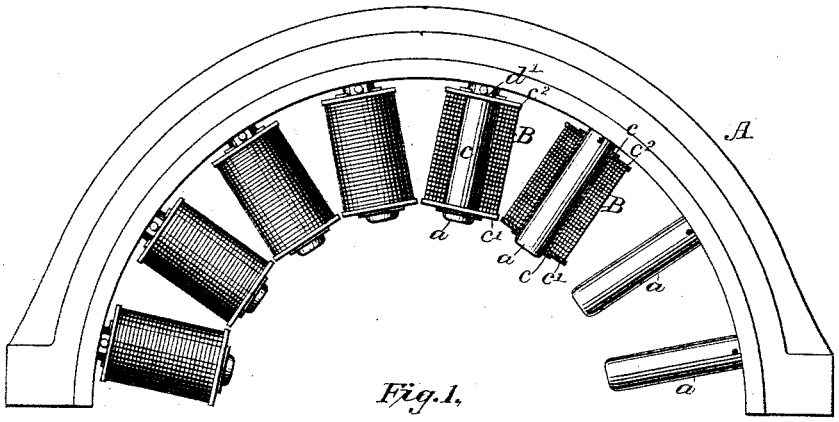


Fig. 1,

Fig. 2,

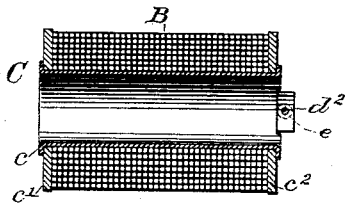
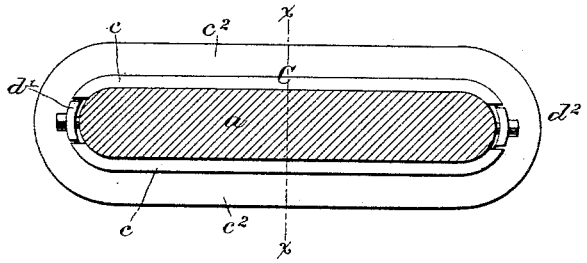


Fig. 3,



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT SCHMID, OF ALLEGHENY, ASSIGNOR TO THE WESTINGHOUSE ELECTRIC COMPANY, OF PITTSBURG, PENNSYLVANIA.

BOBBIN FOR THE FIELD-MAGNETS OF DYNAMOS.

SPECIFICATION forming part of Letters Patent No. 383,657, dated May 29, 1888.

Application filed September 1, 1887. Serial No. 248,478. (No model.)

To all whom it may concern:

Be it known that I, ALBERT SCHMID, a citizen of the Republic of Switzerland, residing in Allegheny, in the county of Allegheny, in the State of Pennsylvania, have invented certain new and useful Improvements in Field-Magnets for Electric Machines, of which the following is a specification.

The invention relates to the construction of the bobbin spools for the field-magnets of electric machines and to the method of securing them upon the cores of the field-magnets.

The object of the invention is to provide a form of spool upon which the bobbin may be wound, which may be conveniently secured upon the pole or polar projection to which the bobbin is applied, and may be easily removed and replaced, and also one which will not combine with adjacent spools to divert the lines of force from the armature.

The invention will be described in detail in connection with the accompanying drawings, in which—

Figure 1 is a view of a portion of a field-magnet, and Fig. 2 is a detail of one of the spools. Fig. 3 is an enlarged end view.

Referring to the figures, A represents the field-magnet frame of an electric machine, and *a a* represent the polar projections or poles for receiving the bobbins. The bobbins B are wound upon spools C. These spools are constructed of sheet-iron cylinders of the proper shape for fitting over the cores, as represented at *c*. The lower or outer end is provided with a brass flange, *c'*, which is fitted over the end of the portion C and fastened in any convenient manner—as, for instance, by turning out or upsetting the end of the portion *c* over the face of the flange *c'*. The upper end of the spool is provided with a similar flange, c^2, fastened in a like manner, and this flange is provided with two lugs, d' d^2, which are designed to fit against opposite sides or ends of the cores or polar projections *a* of the field-magnet. The lugs are provided with small holes *e* for receiving screws, by means of which they are held in position. The wire is first wound upon the spools, and each spool is held in position independently of the others.

In constructing machines of the character to which this invention is especially applicable, it is usual to form the cores of oval cross-section, and the portion *c* of the spools is therefore made of similar cross-section to fit over them. As the cores center upon the armature, their inner ends are near each other, and were the flanges *c'* of the spools formed of magnetic material the lines of force would tend to pass from one spool to that adjacent to it. For this reason it is desirable that the end pieces or flanges, *c'*, should be of brass or some other non-magnetic material, and likewise the lugs d' d^2.

I claim as my invention—

1. The combination, with the field-magnet of an electric machine, of bobbin-spools fitting over the cores or polar projections of the field-magnet and lugs at the inner ends of the spools for securing them in position.

2. In an electric machine, a bobbin-spool having lugs at the inner end fitting over the field-magnet core, whereby it may be secured in position.

3. In an electric machine, a spool for receiving a bobbin of the field-magnet, consisting of a central cylindrical portion of soft iron, an outer flange of non-magnetic material secured to one end, and one or more lugs secured to the opposite end for securing the spool to the field-magnet.

In testimony whereof I have hereunto subscribed my name this 5th day of May, A. D. 1887.

ALBERT SCHMID.

Witnesses:
CHARLES A. TERRY,
W. D. UPTEGRAFF.