

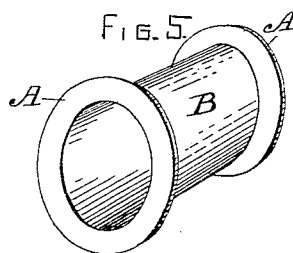
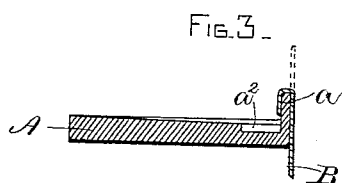
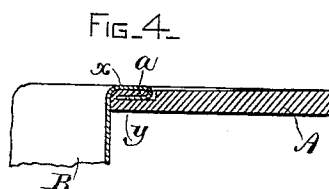
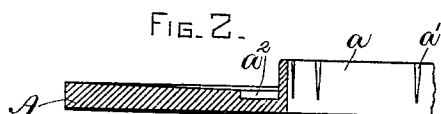
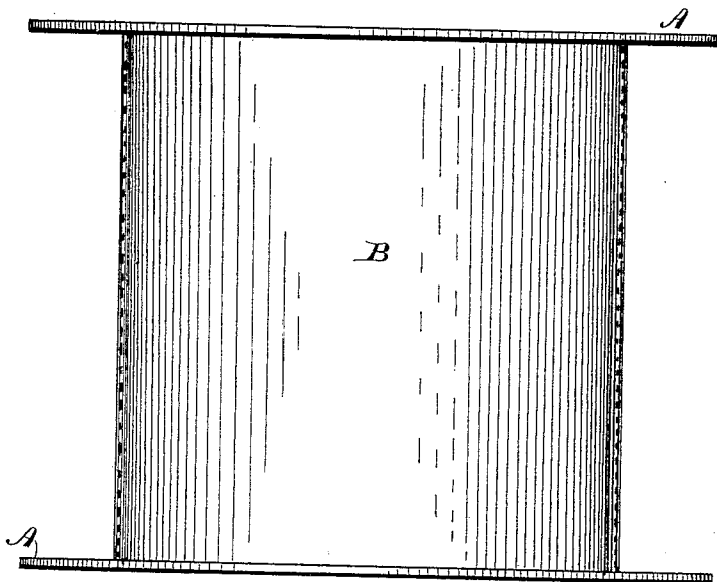
(No Model.)

G. W. DEMMICK.
SPOOL FOR ELECTRIC COILS.

No. 495,026.

Patented Apr. 11, 1893.

FIG. 1.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE W. DEMMICK, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE
GENERAL ELECTRIC COMPANY, OF NEW YORK.

SPOOL FOR ELECTRIC COILS.

SPECIFICATION forming part of Letters Patent No. 495,026, dated April 11, 1893.

Application filed November 23, 1892. Serial No. 452,901. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DEMMICK, a citizen of the United States, residing at Lynn, county of Essex, State of Massachusetts, have invented a certain new and useful Improvement in Spools or Bobbins for Electric Coils, of which the following is a specification.

This invention concerns improvements in spools or bobbins for electric coils and the object is to make a strong, substantial structure adapted to carry the great weight of copper wire used for a single field magnet in the large type electric machines now made without its being liable to bending or injury in the manufacture or working of such machines.

The invention consists in a spool composed of annular metallic heads and a sheet metal body seamed to the inner edge of said heads.

In the drawings Figure 1 is an elevation of a spool embodying my invention. Figs. 2, 3 and 4 show the mode of forming the joint between the body and the head of the spool. Fig. 5 is a perspective view of the bobbin embodying my invention, looking at one end.

The annular heads or rings A, A are made of cast metal such as brass, gun-metal, &c., and of a thickness to suit the size of the field magnets to which they are to be applied and the amount of copper wire to be carried thereby. The inner edge of each ring or head is provided with an integral flange *a* standing at right angles to the ring, and preferably divided into a number of parts by vertical slits *a'*. Adjacent to the flange is a shallow groove *a²* formed in the same face of the ring as that from which the flange projects. A sheet of metal, such as a sheet of iron, is then bent to form a cylinder B of a diameter to fit rather closely in the opening of the head A, as shown in Fig. 2. The upper edge of the sheet B is then bent over and down upon the flange *a* around the entire opening so that it occupies the position shown in Fig. 3, after which the flange and the sheet B are hammered down together to fill the groove *a²* in the head A. The interlocked flange and edge of the sheet now occupy the position shown in Fig. 4, that is, their surface is flush with that of the head A. The other end of the spool is finished in a similar manner.

It will be seen that all soldering is avoided by this construction, that there are no projecting ribs formed on the outside of the head, that is at *x*, which would prevent the spool being placed quite close to the outer iron of the field magnets, and that there is also no metal occupying the space *y* which would interfere with the ready winding of the spool by machinery. It is absolutely necessary that the slots *a'* be provided as shown, as otherwise the flange *a* would be broken off during the seaming operation unless the metal of the head were so malleable as not to be suitable for the construction on account of its lacking rigidity.

What I claim as new, and desire to secure by Letters Patent, is—

1. A spool for electric coils, consisting of cast-metal annular heads provided with notched or serrated flanges interlocked with a sheet-metal body, substantially as described.

2. A spool for electric coils, consisting of annular metallic heads provided with notched or serrated flanges interlocked with a sheet-metal body, the interlocking seams occupying shallow grooves in the heads affording a flush surface, substantially as set forth.

3. The method of making a spool or bobbin for electric coils which consists in forming metallic annular heads having serrated flanges, and then seaming thereto a cylindrical sheet-metal body, substantially as herein described and set forth.

4. The method of making a spool for an electric coil, which consists in casting annular heads, each with a projecting flange and an adjacent shallow groove around its inner edge, slitting said flange at several points, placing a sheet metal body inside the flange, and then seaming the body and flange together, the seamed portion occupying the shallow groove so as to lie flush with the outer surface of the head, substantially as described.

In witness whereof I have hereto set my hand this 21st day of November, 1892.

GEORGE W. DEMMICK.

Witnesses:

JOHN W. GIBBONEY,
BENJAMIN B. HULL.