

(No Model.)

A. L. RIKER.

LAMINATED FIELD MAGNET FRAME FOR DYNAMO ELECTRIC MACHINES.

No. 507,690.

Patented Oct. 31, 1893.

Fig. I.

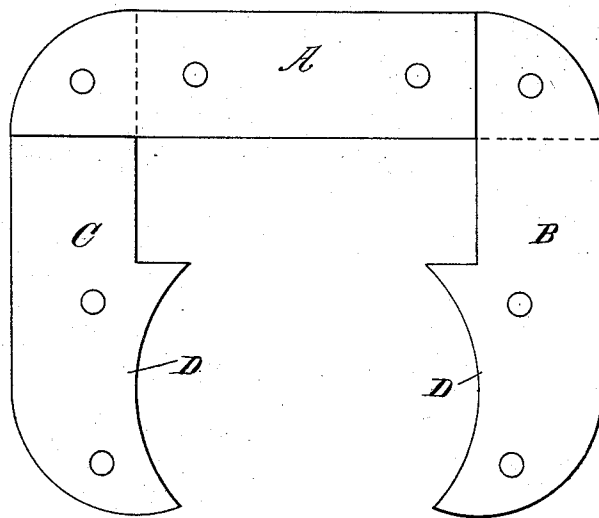
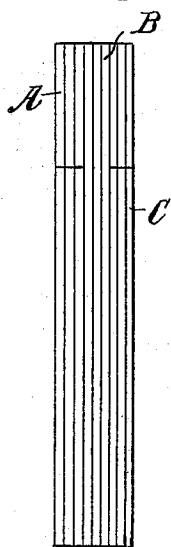


Fig. II.



Attest.

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Inventor:

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UNITED STATES PATENT OFFICE.

ANDREW L. RIKER, OF NEW YORK, N. Y.

LAMINATED FIELD-MAGNET FRAME FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 507,690, dated October 31, 1893.

Application filed July 27, 1893. Serial No. 481,605. (No model.)

To all whom it may concern:

Be it known that I, ANDREW L. RIKER, of New York city, New York, have invented a new and useful Improvement in Laminated Field-Magnet Frames, which is fully set forth in the following specification.

This invention has reference to the construction of laminated field-magnet frames for dynamo-electric machines or electro-motors. In Letters-Patent Nos. 452,717, and 452,718, granted to me May 19, 1891, I have described the construction of several types of laminated frames built of blanks or stampings of wrought iron, assembled together in such manner as to constitute a solid structure, yet capable of being readily taken to pieces for removal and replacement of coils or windings. The present invention is similar in principle to those described in said prior patents, and its special object is to produce a laminated built up frame having an open, instead of a closed magnetic circuit, and having the armature space at one end or side of the frame instead of in the center thereof.

In carrying out the present invention I employ three blanks or elements, two constituting pole-portions and the other the core-portion, and all three constituting when laid together without overlapping, a complete lamina of the shape of the complete frame. The pole-piece blanks are of different shapes, one being abutted against the side of the core-blank, and the other against its end and in that position making a symmetrical figure, so that alternate lamina or groups of laminæ can be reversed in the manner described in the patents above referred to making tongue and groove joints at the extremities of the core, between it and the pole-pieces.

The invention is illustrated in the accompanying drawings.

Figure I is an outline view or front elevation of a magnet frame constructed in accordance with the invention, and Fig. II a side elevation.

The frame is composed of three distinct stampings. A is the blank for the core section, and B, C the blanks for the pole-sections.

The shape of these blanks is so clearly shown as to require no description. Blank A has one end squared, and against this end is placed the curved end of blank C which is longer than blank B by the width of the blank A. Blank B is disposed against the side of blank A, and when so disposed the three blanks form a symmetrical figure.

Blanks B C have at one end pole-pieces D curved in a circular arc to conform to the periphery of the armature. In building up the frame alternate layers or groups of layers are reversed so as to form at the joints tongues and recesses, as indicated in Fig. II through which holding bolts E are inserted. The position of the joints in the next lamina or group are indicated in Fig. I by dotted lines.

The shape of the frame is such that it may be set in several positions according to the use desired. For propelling boats it is disposed as in Fig. I with the pole portions downward, the curved sides being adapted to fit conveniently in the bottom of the boat and bring the armature shaft in suitable elevation to the propeller.

For driving fans, or for any purpose which requires room to clear the ground or floor, the frame is inverted, resting on the part A as a base, and for other purposes the machine can rest upon one of the sides B or C.

Having now particularly described my invention, what I claim as new is—

A field magnet frame for dynamos or electro-motors composed of three blanks or stampings of wrought iron constituting, when laid together as specified without overlapping, a symmetrical figure with the core portion at one end and the pole-pieces at the other, adjacent layers or groups being reversed so as to constitute tongue and groove joints, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ANDREW L. RIKER.

Witnesses:

CORNELIUS J. JORDAN,
WM. W. RICHARD.