(No Model.)

## R. H. MATHER.

MODE OF WINDING FIELD MAGNETS OF DYNAMO ELECTRIC MACHINES.

No. 302,417. Patented July 22, 1884.



## UNITED STATES PATENT OFFICE.

RICHARD H. MATHER, OF WINDSOR, CONNECTICUT.

MODE OF WINDING FIELD-MAGNETS OF DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 302,417, dated July 22, 1884.

Application filed December 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, RICHARD H. MATHER, a citizen of the United States, residing at Windsor, (post-office address Hartford,) in the 5 county of Hartford and State of Connecticut, have invented certain new and useful Improvements in the Process of Winding the Ring-Magnets of Dynamo-Electric Machines, of which the following is a specification.

My invention relates to an improved process of winding the ring-magnet of dynamo-electric machines; and the objects of my invention are to wind the ring-magnet more expeditiously than formerly, and in such manner that the wire upon the spool or between the magnet-ring and the spool will not kink or twist up into knots in the process of winding.

The accompanying drawing represents one of my magnet-rings in the process of being 20 wound and the manner of winding the same.

I first make a hole in the upper part of the ring-magnet A and thread it properly to receive the threaded end of the rod B. This rod is provided with a head, a, at its upper 25 end, and it is passed through the bracket or plate b, which is secured to the ceiling of the room in which the process is to be carried on. The rod passes loosely through the plate b, so that it is free to turn therein after the manner 30 of a swivel. This rod is screwed into the hole

in the upper part of the ring-magnet, so as to suspend the ring a convenient distance above the floor, and so that it is free to be revolved, as shown in the drawing. After suspending the ring-magnet in this manner the wire is 35 wound thereon from a suitable spool or bobbin by turning the ring-magnet upon the swivel-joint with one hand, while the operator merely guides the wire by the other hand and passes it through the opening at the bot- 40 tom of the ring at each revolution thereof. In this manner of winding, the wire comes directly up from the spool without any twists or any tendency to become entangled, and the ring can be wound much more conveniently 45 than it would be possible to do were the magnet held in a stationary position.

I claim as my invention—

The herein-described process of winding a ring-magnet, which consists in suspending the 50 same so as to be readily revolved, then revolving the ring, while the wire, whose end is secured thereto, is guided and passed through the opening at the bottom of the ring for every revolution thereof, substantially as 55 described, and for the purpose specified.

RICHARD H. MATHER.

Witnesses:

HIRAM WILLEY, CHAS. A. SAFFORD.