

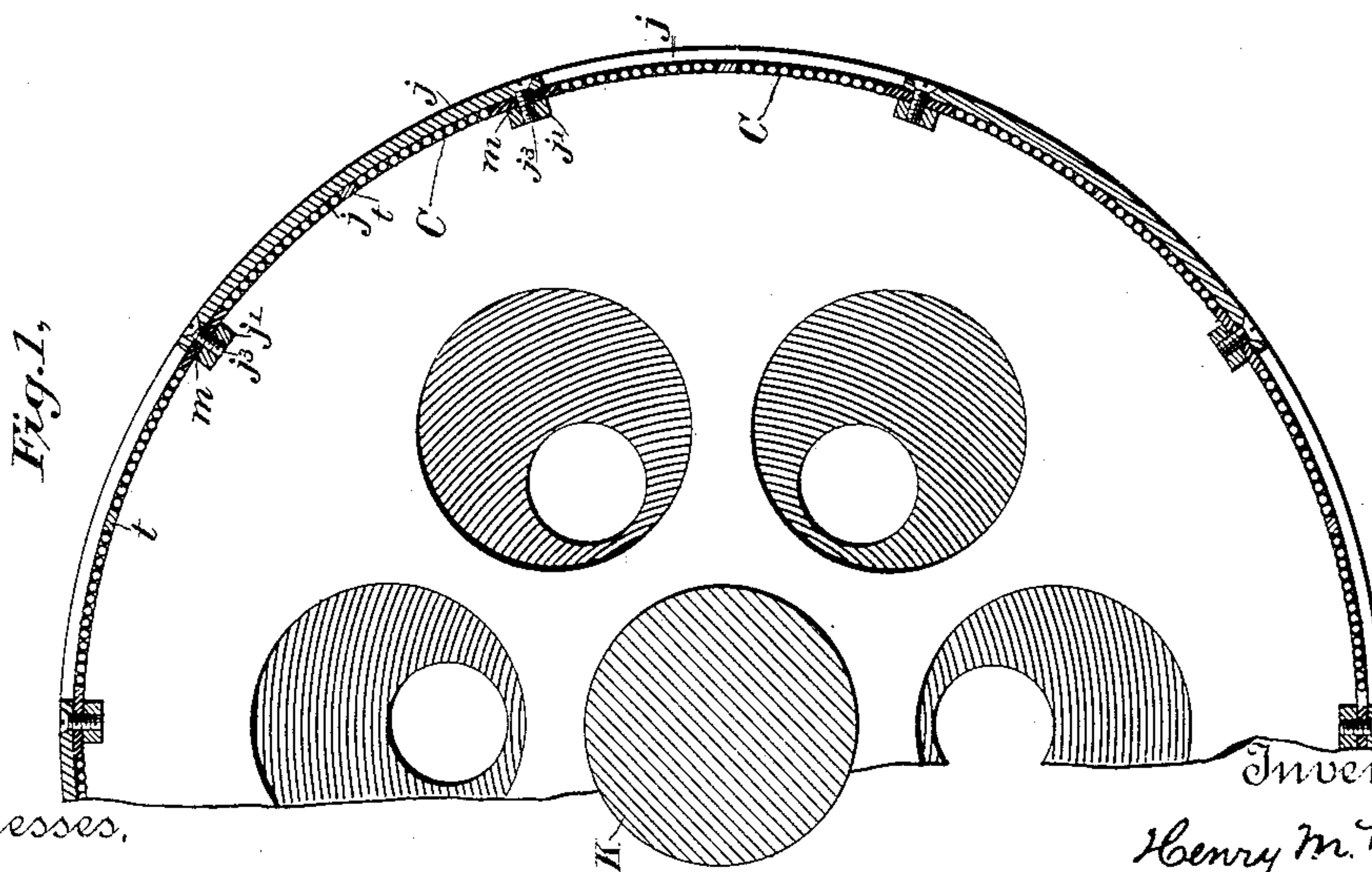
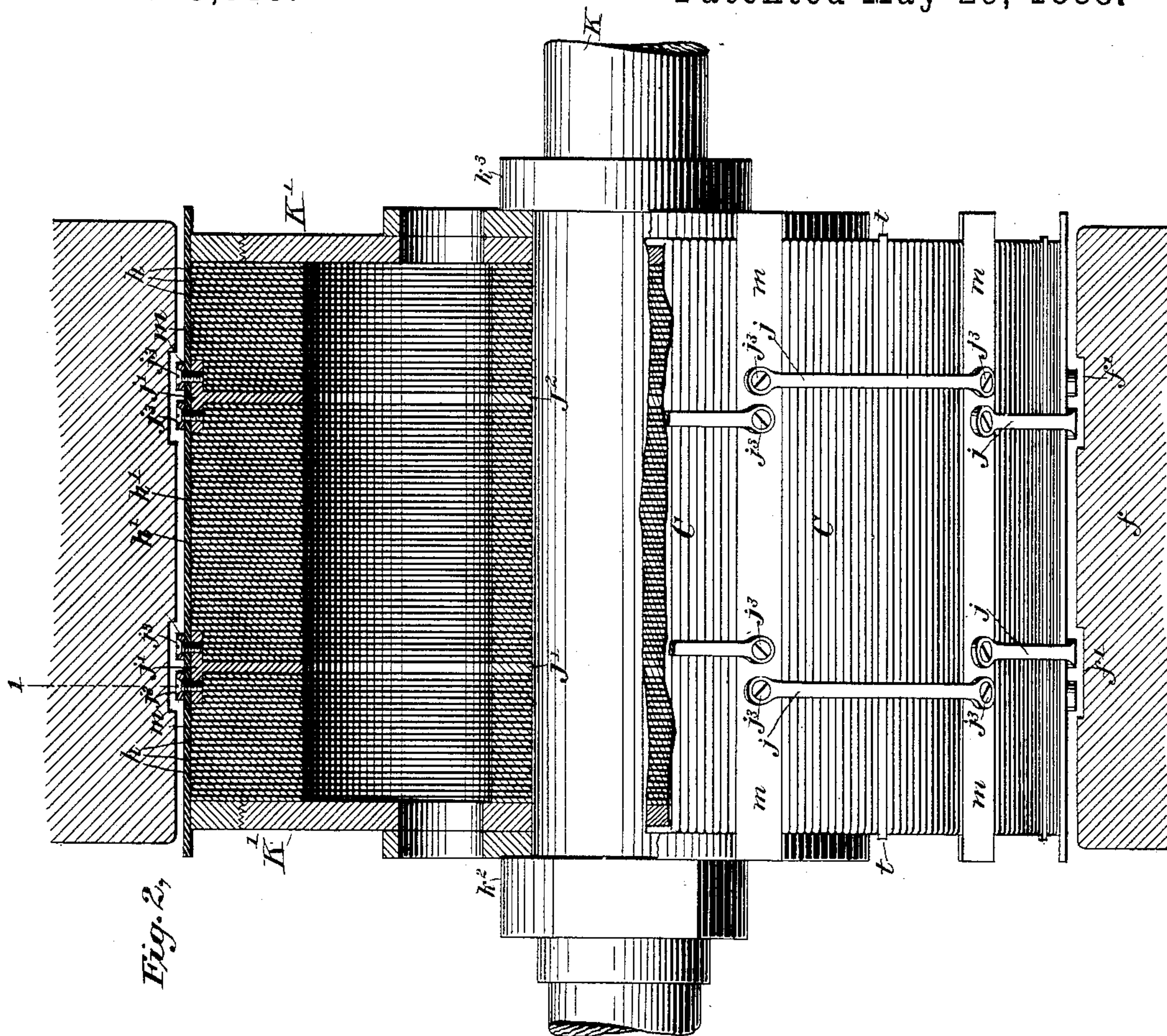
(No Model.)

H. M. BYLLESBY.

ARMATURE FOR DYNAMOS AND MOTORS.

No. 383,619.

Patented May 29, 1888.



Witnesses,

Geo. W. Breck.
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By his Attorneys

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UNITED STATES PATENT OFFICE.

HENRY M. BYLLESBY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE
WESTINGHOUSE ELECTRIC COMPANY, OF SAME PLACE.

ARMATURE FOR DYNAMOS AND MOTORS.

SPECIFICATION forming part of Letters Patent No. 383,619, dated May 29, 1888.

Application filed September 1, 1887. Serial No. 248,476. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. BYLLESBY, a citizen of the United States, residing in Pittsburg, in the county of Allegheny, in the State of Pennsylvania, have invented certain new and useful Improvements in Armatures for Electric Machines, of which the following is a specification.

The invention relates to the construction of armatures for electric machines, and especially that class known as alternate-current electric generators.

In placing the coils upon the armature-cores of a certain type of machines it is customary to wind the wire parallel with the axis of the armature and down upon its ends. Through the center of each flat bobbin thus formed there extends a strip or lug, and the wire is held down against the armature-core between these lugs by bands of fine wire wrapped circumferentially about the armature.

The present invention contemplates certain improvements in the method of binding the wire; and it consists, generally, in employing, in place of the binding wire or bands, strips of suitable material and of proper length to be fastened at their respective ends to two adjacent lugs. In this manner each strip serves to hold the wire between two corresponding lugs in position. Two or more strips are applied to each division thus formed.

In the accompanying drawings, Figure 1 is a cross-section of a portion of an armature embodying the features of the invention, and Fig. 2 is an elevation partly in section.

Referring to the figures, K represents the shaft upon which the armature is mounted, and $h\ h$ plates of magnetic material of which the armature-core is built up. These plates are separated by sheets $h'\ h'$ of insulating material—such, for instance, as paper pasted upon one surface of each plate. The plates are bound together by end plates, $K' K'$, which in turn are held in position upon the shaft by lugs or nuts k^2 and k^3 .

At suitable points in the series of plates h there are placed heavier plates J' and J^2 , and these plates are constructed with lateral lugs $j' j'$ at the proper points to lie beneath

the longitudinal strips or lugs $m\ m$, which extend along the surface of the armature parallel with its axis. These strips m are preferably of non-magnetic material, and they are designed to be bound in position by screws j^3 , which extend through the strips and into the lugs j' .

The bobbins C of the armature are wound upon the strips m , as shown, and between the outer portions of separate bobbins there may be placed longitudinal strips t of non-magnetic material, which lie parallel with the strips m .

For the purpose of holding the wire against the surface of the armature strips $j\ j$ of any suitable material—such, for instance, as brass—extend from one lug m to an adjacent lug m , and these strips are fastened by screws $j^3 j^3$, which extend through the lugs m into the lugs j' of the plates J' and J^2 . These strips j are curved to conform to the outer surface of the armature, and it is evident that they may be removed from any particular division without removing the entire set when it is desired to replace any particular bobbin or otherwise repair the machine.

In the drawings the screws j^3 and the strips j are shown as extending slightly above the general surface of the armature, and for this reason the faces of the poles of the field-magnets $f\ f$ are cut away, as shown at f' .

I claim as my invention—

1. In an armature for electric machines, the combination, with the armature-coils wound upon the surface parallel with its axis, of strips or lugs extending parallel with the axes, about which the coils are arranged, and binding-strips extending between the respective longitudinal strips and holding the wire in position, substantially as described.

2. The combination, with the armature-coils of an electric machine and longitudinal strips about which they are wound, of transverse binding-strips secured to the respective longitudinal strips, substantially as described.

3. The combination, in an armature for electric machines built up of alternate sheets of soft iron and insulating material, of one or more heavier plates intermediate in the series

and longitudinal strips or lugs secured thereto, substantially as described.

4. The combination, in an armature for electric machines built up of alternate sheets of
5 soft iron and insulating material, of one or more heavier plates intermediate in the series, longitudinal strips or lugs secured thereto, and binding-strips secured at their respective ends to adjacent longitudinal strips.

In testimony whereof I have hereunto subscribed my name this 13th day of July, A. D. 1887.

HENRY M. BYLLESBY.

Witnesses:

DANL. W. EDGECOMB,
CHARLES A. TERRY.