(No Model.)

O. B. SHALLENBERGER.

ARMATURE FOR DYNAMOS.

No. 383,663. Patented May 29, 1888.

Fig. 2.

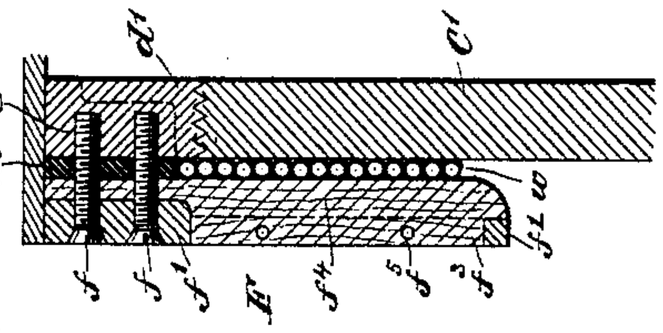


Fig. 5.

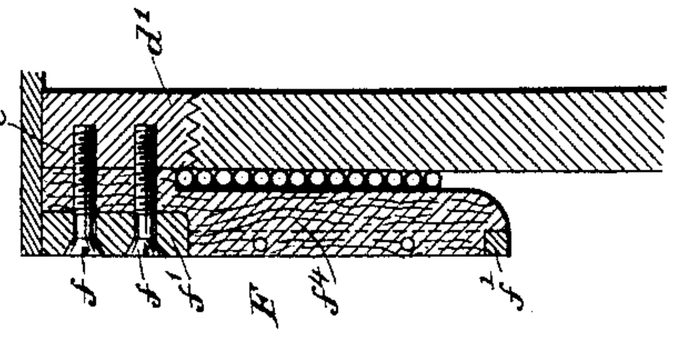


Fig. 1.

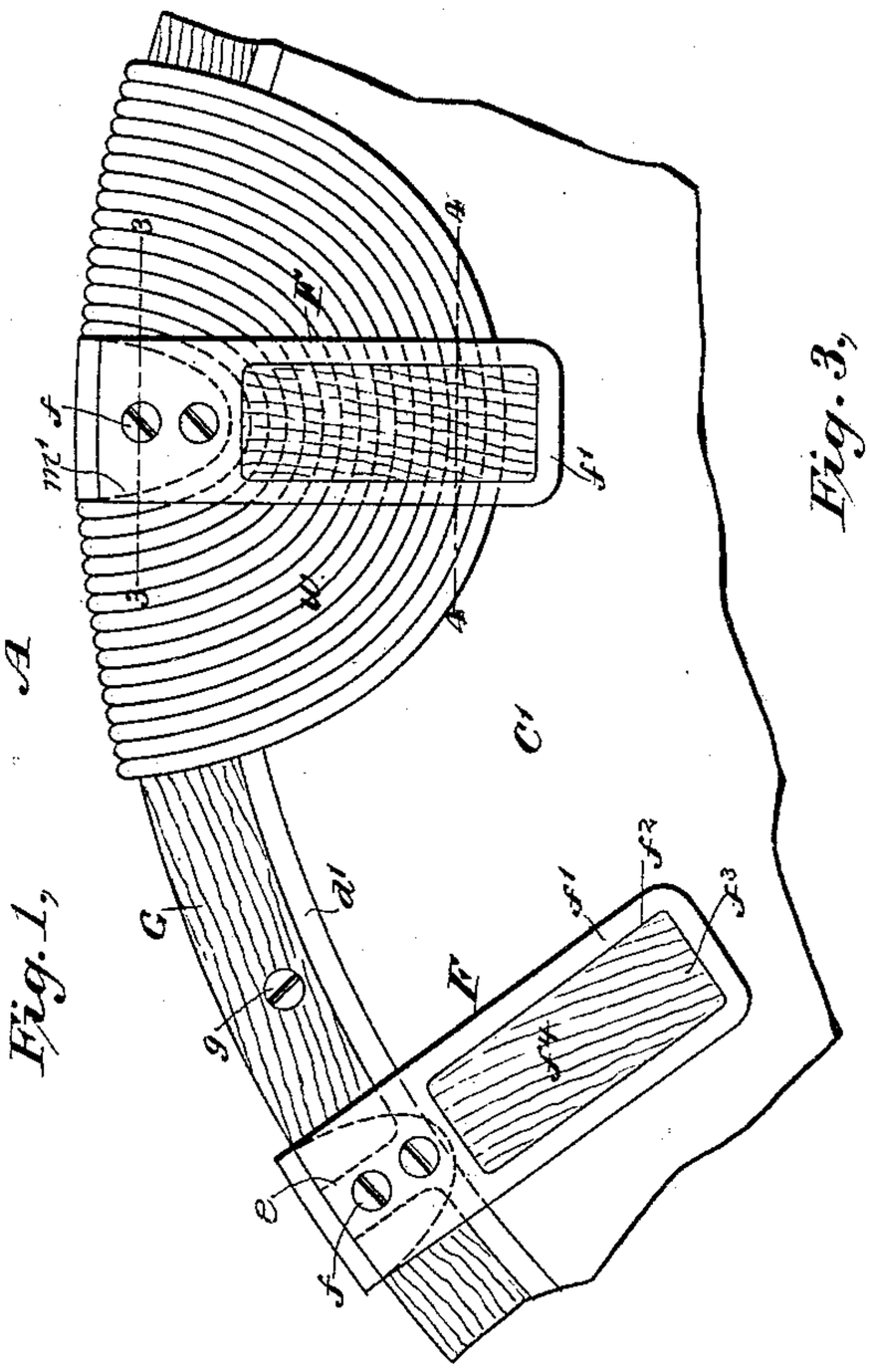


Fig. 3.

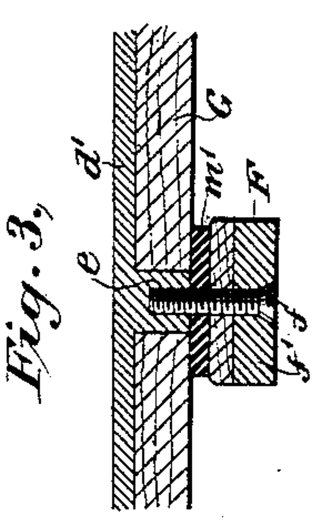
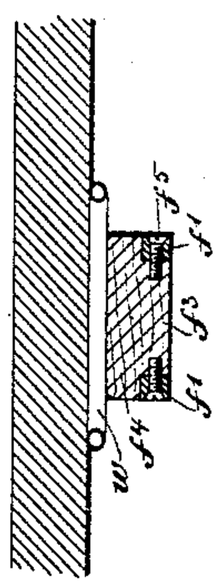


Fig. 4.



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By his Attorneys
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UNITED STATES PATENT OFFICE.

OLIVER B. SHALLENBERGER, OF ROCHESTER, ASSIGNOR TO THE WESTINGHOUSE ELECTRIC COMPANY, OF PITTSBURG, PENNSYLVANIA,

ARMATURE FOR DYNAMOS.

SPECIFICATION forming part of Letters Patent No. 383,663, dated May 29, 1888.

Application filed September 1, 1887. Serial No. 248,465. (No model.)

To all whom it may concern:

Be it known that I, OLIVER B. SHALLENBERGER, a citizen of the United States, residing in Rochester, in the county of Beaver and 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 electric machines, and especially to the class known as "alternate-current" machines.

The object of the invention is to provide a convenient device for holding the wire which, in a certain type of armature, is wound flat upon the periphery of the core and down upon the ends. Heretofore various forms of clips have been employed for this purpose. These project over the ends of the armature, and the wire is passed beneath them. It is desirable that these clips be as strong as possible, and yet shall expose to the wire itself insulating surfaces.

The present invention consists in forming such clips in the following manner: A frame of metal — such, for instance, as brass — receives a wooden block which constitutes an inner lining, and beneath which the wire is passed. This frame and block are secured to the armature by screws passing through the frame and a portion of the block into the core of the armature or a ring secured thereto.

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

Figure 1 is an end view of a section of the armature provided with the clips, and Fig. 2 is a transverse section of one of the clips as applied. Fig. 3 is a section through the line 3 3, Fig. 1; and Fig. 4 is a section through the line 4 4, Fig. 1. Fig. 5 illustrates a modification.

Referring to the figures, A represents a portion of an armature-core provided with an end plate, C'. This plate carries at its periphery a ring, *d'*, which screws upon it and extends nearly to the periphery of the armature-core. The ring is provided at intervals with lugs *e*. These serve to receive screws *f*, which bind in position plates or overhanging clips F of non-conducting material. These clips project down upon the ends of the armature, and the wire *w*, which is wound upon the face of the armature, is passed around beneath them. As the wire is wound upon the armature and beneath the clips, it passes over the edge of the core, and it is desirable that insulating material be placed along the edges or corners. For this reason strips G of wood are placed against the ring. These are bound in position by screws *g* entering a flange upon the ring.

The clips F, beneath which the wire is passed, are constructed with an external frame, *f'*, which may with advantage be of brass or other metal, and this is formed with an opening, f^2, for receiving a projection, f^3, upon a block, f^4. This projection fits tightly within the opening, and serves to hold the block in the frame. The block f^4 projects outward upon the under side of the frame to the edge, as shown in Figs. 2 and 3. The block is held away from the armature and wooden ring by a lug, *m'*, which may be either a separate piece from the block, as shown in Figs. 2 and 3, or it may be a lug upon the block itself, as shown in Fig. 5. The entire clip is held against the armature by screws *f*, which pass through the metal portion or frame *f'* into the corresponding lugs *e* upon the ring *d'*.

The block f^4 may be fastened into the frame *f'*, as shown at f^5, by pins passing through the frame and the lug f^3.

I claim as my invention—

1. In the armature of an electric machine, an end clip for receiving the wires, consisting of a metallic frame, and a lining-block of wood or other insulating material fastened into said frame.

2. In an electric machine, an end clip for receiving the armature-wire, consisting of a metallic frame, a lining-block of wood or other insulating material, said block having a lug upon its inner surface, and screws binding the frame and block to the end of the armature.

3. In an electric machine, the combination, with the armature-core, of a ring, *d'*, having lugs *e*, an end clip, F, consisting of the frame *f'*, the block f^4, of non-conducting material, having the lug f^3, and means for fastening the block to a lug, *e*, of said ring, substantially as described.

In testimony whereof I have hereunto subscribed my name this 12th day of July, A. D. 1887.

OLIVER B. SHALLENBERGER.

Witnesses:

W. D. UPTEGRAFF,

CHARLES A. TERRY.