(No Model.)

O. B. SHALLENBERGER.

ARMATURE FOR ELECTRIC MACHINES.

No. 383,664. Patented May 29, 1888.

Fig. 2.

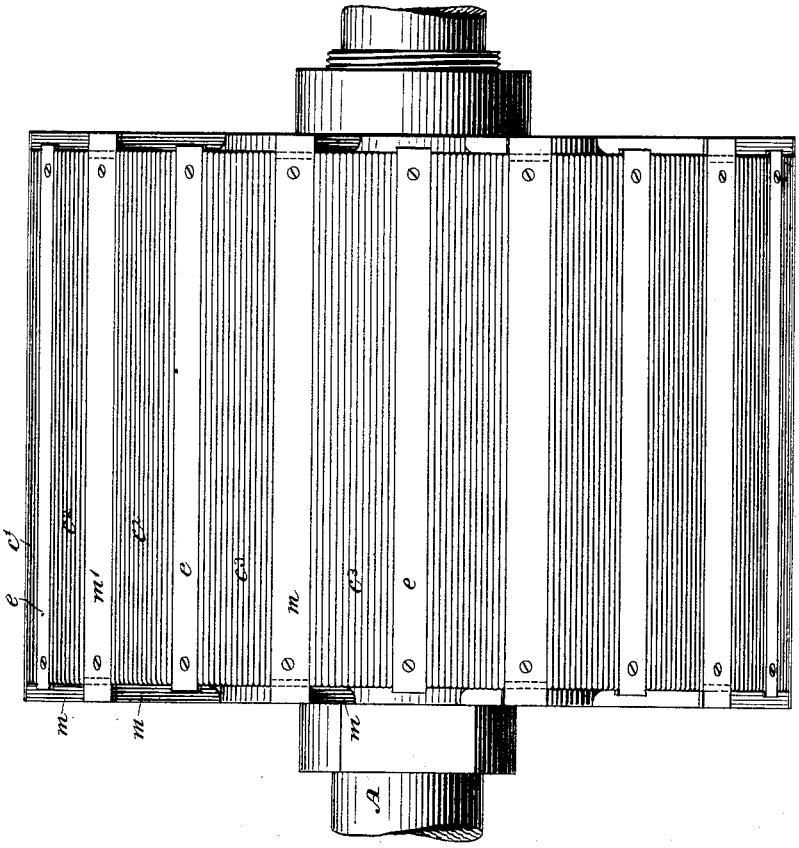
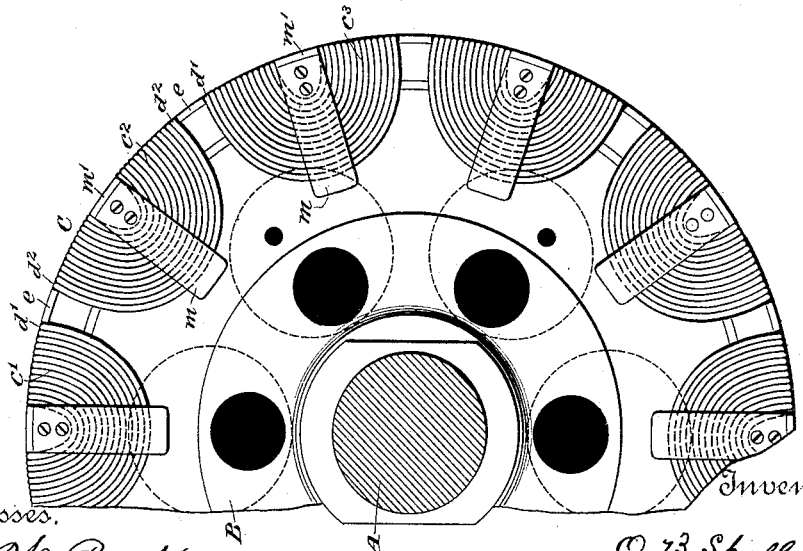


Fig. 1.



Witnesses.
Geo. W. Breck.
Carrie E. Ashley.

Inventor.
O. B. Shallenberger.
By his Attorneys.
Pope Edgecomb & Terry

UNITED STATES PATENT OFFICE.

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

ARMATURE FOR ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 383,664, dated May 29, 1888.

Application filed September 1, 1887. Serial No. 248,466. (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, generally, to the construction of the armatures of electric machines, and especially to a method of separating the wires conveying currents of considerable difference of potential from each other.

The invention consists in placing between the separate sets of convolutions of inductive wire applied to armatures of the type described in an application for Letters Patent, Serial No. 223,009, strips of insulating material of sufficient width to prevent a short circuit from being formed between wires which lie adjacent to each other.

In the accompanying drawings there is shown in Figure 1 an end view of a portion of an armature with the strips applied, and Fig. 2 is an elevation of the armature.

Referring to the figures, A represents the armature-shaft, and B the core. Upon this core there is wound the inductive wire C in separate sets of convolutions c' c^2, &c. The wire is wound across the face of the armature around strips m' of non-magnetic material, and under overhanging clips m, placed at the respective ends of these strips. After a sufficient amount of wire has been applied to complete any given set of convolutions, it is carried to the succeeding set of clips and wound in a similar manner. It will be understood, however, that there must necessarily be a considerable difference of potential between two adjacent wires, d' d^2, which constitute the outer convolutions of two adjacent sets. When currents of high potential are thus brought near to each other, there is more or less danger of a short circuit being formed between them. To obviate this I place strips e of non-magnetic material—such as vulcanized fiber or leatheroid—along the face of the armature in a proper position to separate the outer wires of each two adjacent sets of convolutions.

I claim as my invention—

In an armature for electric machines, a core of magnetic material, inductive wire wound in separate sets of convolutions arranged flat upon the face of the armature-core, non-magnetic lugs about which the convolutions are wound, and strips of insulating material separating the outer wires of adjacent sets of convolutions from each other.

In testimony whereof I have hereunto subscribed my name this 6th day of May, A. D. 1887.

OLIVER B. SHALLENBERGER.

Witnesses:
CHARLES A. TERRY,
H. B. SHALLENBERGER.