

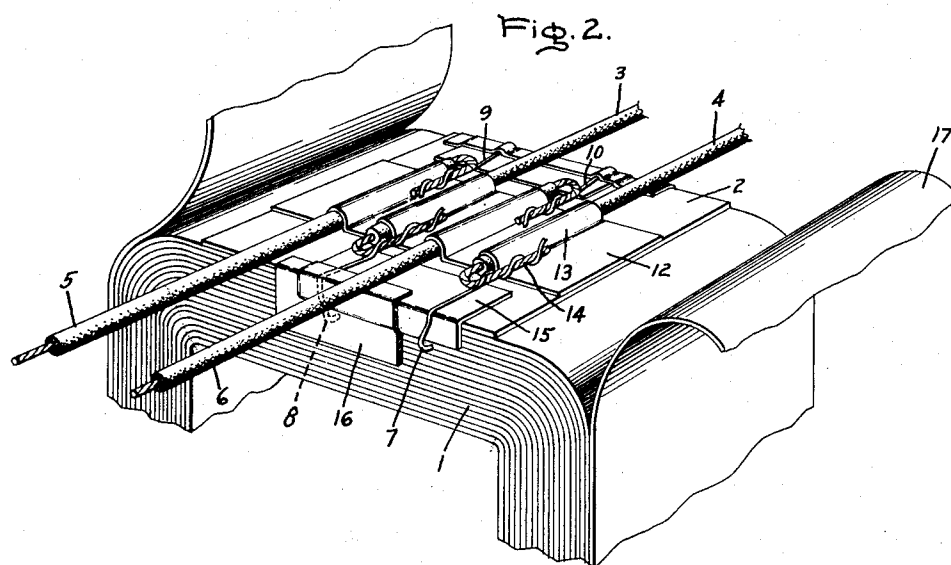
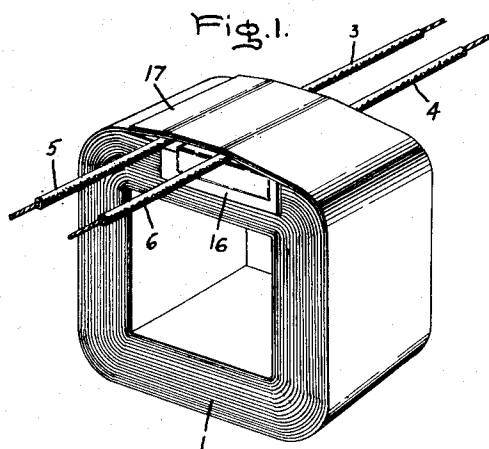
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2,184,272

ELECTRICAL WINDING

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ELECTRICAL WINDING

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3 Claims. (Cl. 175-21)

My invention relates to electrical windings and particularly to the part of such a winding which involves the connecting leads therefor.

My present invention is a further development of that disclosed and claimed in my United States Letters Patent 1,968,600 for Electrical winding, dated July 31, 1934. With the constructions shown by that patent it is possible for the leads of the winding to be turned in the passageways in which they lie and to be moved a small amount in or out of the passageways. If circumstances are such that either of those movements is excessive either in amount or frequency of occurrence they may result in a broken conductor particularly if the conductor forming the winding is of small size. They may also allow two adjacent connections to come in contact with each other.

One object of my present invention is to provide an improved winding construction whereby the disadvantages mentioned above may be avoided. Another object is to provide a winding which has a smooth contour at that portion at which the leads connect with the conductor of the winding and which is of simple construction and is inexpensive to manufacture.

My invention will be better understood from the following description taken in connection with the accompanying drawing and its scope will be pointed out in the appended claims.

Referring to the drawing, Fig. 1 is a perspective view of a complete winding embodying my invention and Fig. 2 is a similar view showing a fragment only of the winding drawn to a larger scale and with certain parts removed.

The winding may be formed in any common and well known manner such for example as that shown in my above-mentioned patent where the winding is represented as comprising a number of layers each insulated from the other by a sheet of insulating material such as paper. On the insulation covering the outer layer of the winding 1 is the insulating member or pad 2 which, for example, may be of paper. On this pad are the terminal leads 3, 4, 5 and 6, four being shown in the present case since the winding 1 comprises two sections each having two or more ends. These ends are brought out from the end faces of the winding, as shown, and are represented at 7, 8, 9 and 10. The terminal leads 3, 4, 5 and 6 are arranged parallel with each other and are spaced apart a distance at least equal to and preferably greater than the diameter of the lead. The leads are firmly secured to the pad 2 by applying thereto the ad-

hesive strip 12 which, for example, may be constructed of paper having an adhesive thereon and which is made to conform to the leads whereby the leads under the strip produce the corrugations 13. The adhesive strip 12 when applied to the leads and the pad is firmly pressed into engagement therewith so that it adheres firmly to both the pad and the leads. The end of each lead is connected as shown at 14 with one of the conductor ends forming the winding, the connection being preferably twisted and soldered, and after the connection is made each lead is turned back to cause the connection or joint to lie along side of a corrugation or between two adjacent corrugations.

Where the conductor forming the winding is of very small size and hence is more liable to become injured or broken where it passes over the edge of the winding or the edge of the pad, I preferably place under it at this point a small strip of flexible insulating material such as crepe paper as shown at 15 in order to cushion the wire and thus save it from injury. Over the wire I also place another protecting strip 16. Around the entire winding is the outer insulating wrapper 17 which after being passed around the winding one or more times is lapped and suitably cemented or otherwise secured in position.

With the above described arrangement it will be seen that the connecting leads are secured to the winding in such a manner that they cannot be turned or moved longitudinally hence there is no danger of the conductor ends being broken where they join on the connecting leads. Moreover, since the connections are separated from each other by the corrugations there is no chance of one joint ever making contact with another. Since the corrugations and connecting leads are of a uniform height, are spread over one face of the winding and are covered by the wrapper, the exterior of the coil has a smooth and uniform surface at this point.

I have chosen the particular embodiment described above as illustrative of my invention and it will be apparent that various modifications may be made without departing from the spirit and scope of my invention which modification I am to cover by the appended claims.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. An electrical winding comprising an electrical conductor wound in a plurality of turns, a flat insulating member supported on said winding, spaced terminal leads on said member having their ends connected with said conductor, an

adhesive member overlying said member and leads and firmly adhering to both to anchor the leads, at least one of said connections being bent back to overlie the adhesive member in the space between two adjacent leads and an outer insulation covering for said leads, connections and member.

2. An electrical winding comprising an electrical conductor wound in a plurality of turns, an insulating pad supported on said winding, terminal leads arranged on said pad in spaced relation and having their ends connected with said conductor, an adhesive member overlying and firmly secured to said pad and leads, the leads under the member forming corrugations therein and the connections of the leads and the conductor being arranged between the cor-

rugations and an outer member wrapped over the winding, the leads and parts secured thereto.

3. An electrical winding comprising an electrical conductor wound in a plurality of turns, an insulating pad supported on said winding, a plurality of terminal leads arranged parallel and in spaced relation on said pad, the ends of said leads being connected with said conductor, an adhesive strip conforming to said leads whereby corrugations are formed therein said strip firmly adhering to said leads and to said pad at each side of each lead, the connections between the conductor and the leads being arranged on said strip between corrugations and an insulation wrapper covering the winding, the leads, the connections, the pad and the strip.

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