(No Model.)

J. W. DICKEY.

BRUSH FOR DYNAMO ELECTRIC MACHINES.

No. 533,583. Patented Feb. 5, 1895.

Fig. 1.

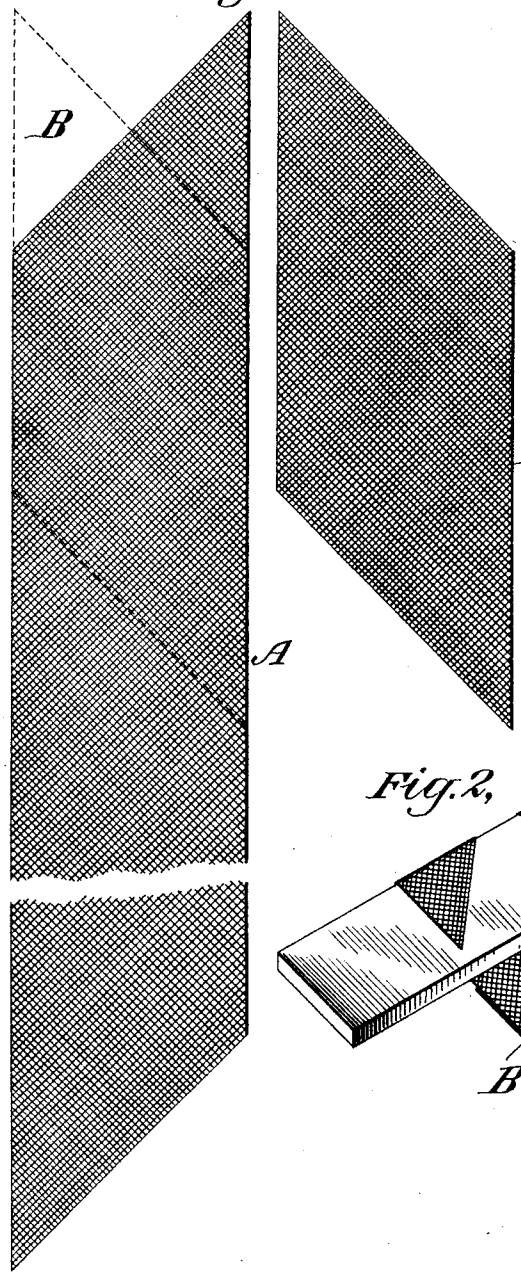


Fig. 3.

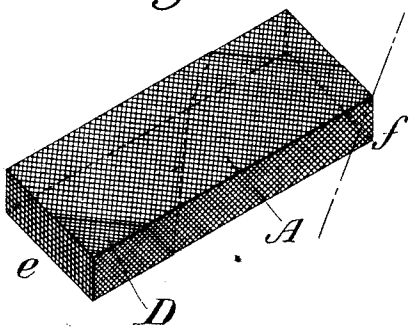
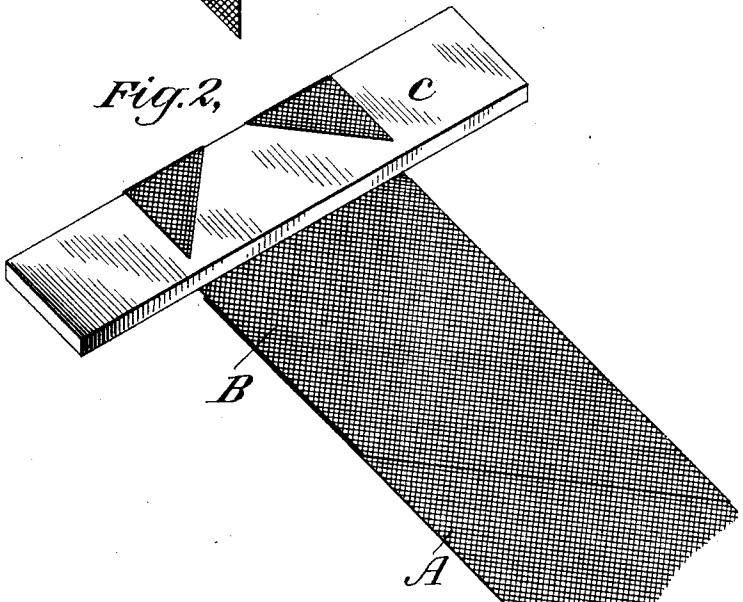


Fig. 2.



Witnesses:-

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UNITED STATES PATENT OFFICE.

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BRUSH FOR DYNAMO-ELECTRIC MACHINES.

SPECIFICATION forming part of Letters Patent No. 533,583, dated February 5, 1895.

Application filed December 8, 1894. Serial No. 531,292. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WELLS DICKEY, a citizen of the United States of America, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Brushes for Dynamos; and I hereby declare that the following is a full, clear, and exact description and specification of the invention, reference being had to the accompanying drawings, forming a part of the same.

I am aware that dynamo brushes have heretofore been constructed of woven wire mesh, but I am not aware that previous to my invention thereof any dynamo brush, containing my improvements, has ever been constructed.

My invention relates to dynamo brushes, wherein the individual wires of the mesh run angularly to the parallel side of the brush, and it consists in certain details of construction fully set forth herein.

In order that persons skilled in the art to which my invention appertains may understand, construct and use my invention, I will proceed to describe it, referring to the drawings herewith, in which—

Figure 1 is a plan view of a strip of wire mesh, cut from a roll of mesh, on the bias, or angularly to the longitudinal trend of the roll, about as shown. It also shows a shorter piece of mesh placed by the side of the longer piece, with the angle at its ends lying in reverse position. The dotted lines in this figure show the shorter piece, placed over the longer piece previous to winding the two together over a former. Fig. 2 shows the two blanks as they appear at the commencement of the winding over the former. Fig. 3 shows the brush when completed, and after being pressed or molded into shape in a suitable die.

A is the woven wire blank cut from the roll of mesh, on the bias, across the width of the mesh.

B is a shorter piece similarly cut from the strip.

C is a former over which the wire blank is wound before pressing it into its final shape for use.

The point of the angular end D is soldered to the mass of the brush to hold it firmly in place, and I usually solder the whole end *e* together and bevel off the end *f* previous to use on the commutator of a dynamo.

It will of course be understood that in cutting my blanks angularly to the length of the wire cloth or mesh, the wires of the mesh will also run angularly across my blanks. I do not claim this as new with me.

After the blanks have been wound over the former, the former is withdrawn and the folded mesh is pressed into the shape shown in Fig. 3 by a powerful press into a suitable mold shown and claimed by me in another application, Serial No. 531,291, filed of even date herewith, December 8, 1894. The advantages which accrue from this mode of construction are as follows: When a blank such as A is wound on a former at the beginning of the operation, the angular part does not cover the former evenly, that is to say, the thickness of the material at one end is greater and is more compact than at the other end, and on a long brush this causes an uneven winding and hollowness. This difficulty I remedy by the arrangement of pieces above shown and described. The shorter piece being placed in reverse position over the longer one, it very nearly fills up the vacant space left by the angular part of the longer one, thus making a compact brush. The final laps of the wire mesh strip over the inclosed mesh present an angular or spiral appearance, and bind the whole mass together when soldered at the point D, so that the wear of the brush leaves no mesh wires parallel with the commutator to the fly off.

The operation will be apparent to those skilled in the art, and needs no further description.

Having now fully described my invention and the manner in which I have embodied it, what I claim as new and as my invention is—

In a dynamo brush composed of woven wire cloth or mesh, the combination with main blank, cut angularly to the length of the roll or piece of a second shorter piece of wire cloth similarly cut and placed over the main blank, with its angular ends in reverse position to those of the main blank, and wound up and pressed to form and forming a dynamo brush of suitable shape, substantially as and for the purposes hereinbefore specified.

JOSEPH WELLS DICKEY.

Witnesses:
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