(No Model.)

# F. J. CHAPLIN.

## BRUSH FOR DYNAMOS.

No. 589,162. Patented Aug. 31, 1897.

FIG. 1

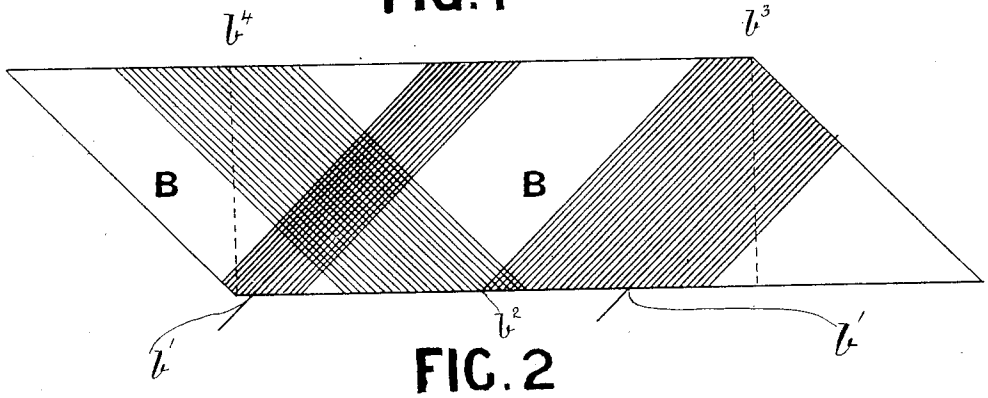



FIG. 2

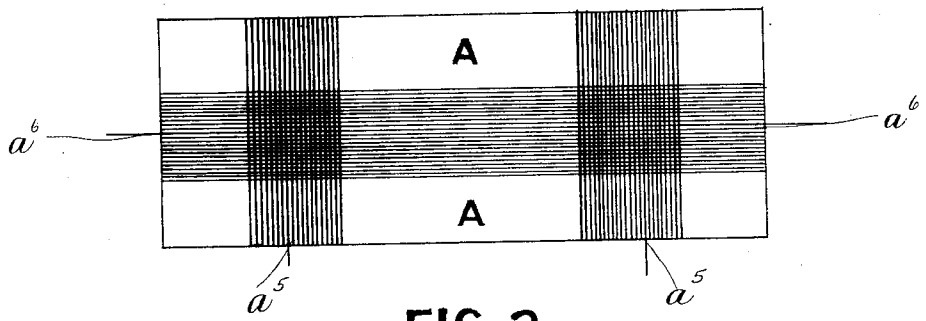



FIG. 3

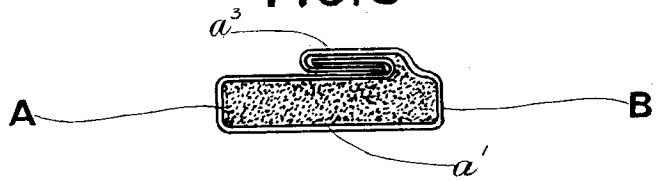
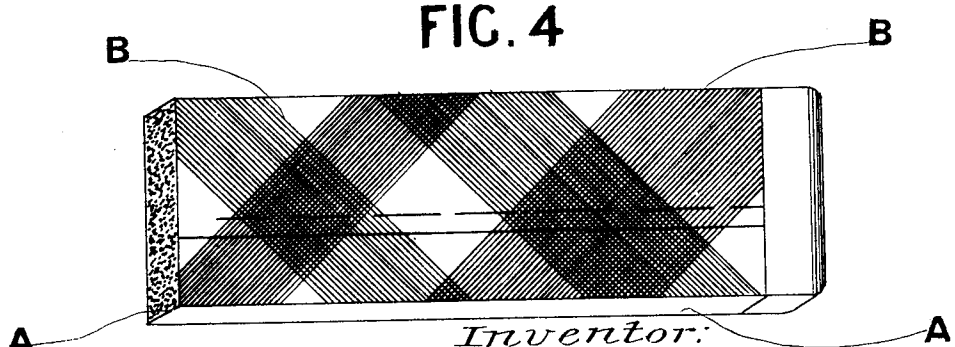



FIG. 4




Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

FREDERICK JOHN CHAPLIN, OF BIRMINGHAM, ENGLAND.

## BRUSH FOR DYNAMOS.

SPECIFICATION forming part of Letters Patent No. 589,162, dated August 31, 1897.

Application filed March 17, 1897. Serial No. 628,041. (No model.) Patented in England August 22, 1896, No. 18,617.

*To all whom it may concern:*

Be it known that I, FREDERICK JOHN CHAPLIN, wire-drawer, a subject of the Queen of Great Britain, of 233 Park Lane, Aston, Birmingham, in the county of Warwick, England, have invented certain new and useful Improvements in Brushes for Dynamos, of which the following is a specification, and for which a patent has been granted in England, No. 18,617, dated August 22, 1896.

My invention has for its object improvements in brushes for dynamos, and refers to the cases or covers which are so constructed as to be much stronger without increasing the weight of material in them and more pressure may be placed upon the brush than is possible with brushes as at present constructed.

In order that my invention may be clearly understood and more easily carried into practical effect, I have appended hereunto a sheet of drawings upon which I have illustrated examples of the same.

Figure 1 shows a sheet of copper wire-gauze B, with the wires $b'$ and $b^2$ running diagonally to the length and breadth of the brush. Fig. 2 shows a sheet A, with the wires $a^5$ and $a^6$ running with the length and width of the brush. Fig. 3 shows a cross-section of the brush made up, with the casing composed of a sheet of gauze A and a sheet of gauze B and the center of loose wires. Fig. 4 is a perspective view of the brush.

In making my new brush-cases I take a sheet B of copper wire-gauze, with the wires or fibers $b'$ and $b^2$ running diagonally to the length of the brush, and a sheet A, with its wires $a^5$ $a^6$ running with the length and squarely across the length. The sheet A is then laid upon the sheet B, as shown by the dotted lines $b^3$ $b^4$, or the sheet B may be laid upon the sheet A. The center is then made up of loose wires of any suitable form. By this means I obtain considerable stiffness or rigidity, while the bearing-point is quite soft and does not cut the commutators of the dynamos. In some cases I may use two or more of these sheets of copper wire-gauze placed one on the top of the other in the like manner as previously described.

What I claim, then, is—

The improvements in brushes for dynamos consisting of one or more sheets B having the wires running diagonally and one or more sheets A having the wires running square with the length and breadth of the brush and with a wire center substantially as and for purpose herein set forth and as shown upon the drawings.

In testimony that I claim the foregoing as my own I affix my name in the presence of two witnesses.

FREDERICK JOHN CHAPLIN.

Witnesses:
THOMAS MARSTON,
HENRY B. LAKE.