

(No Model.)

J. DICKSON & R. G. SHAPCOTT.  
DYNAMO BRUSH.

No. 549,502.

Patented Nov. 12, 1895.

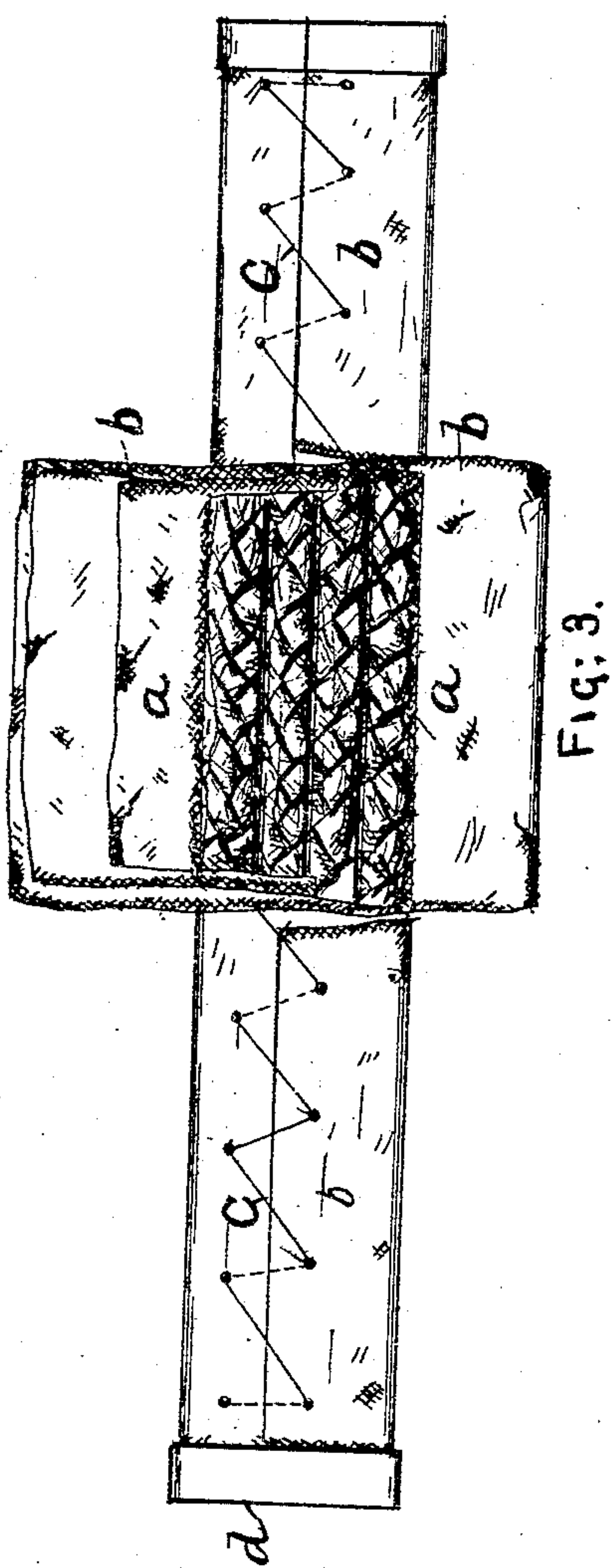


Fig. 4.

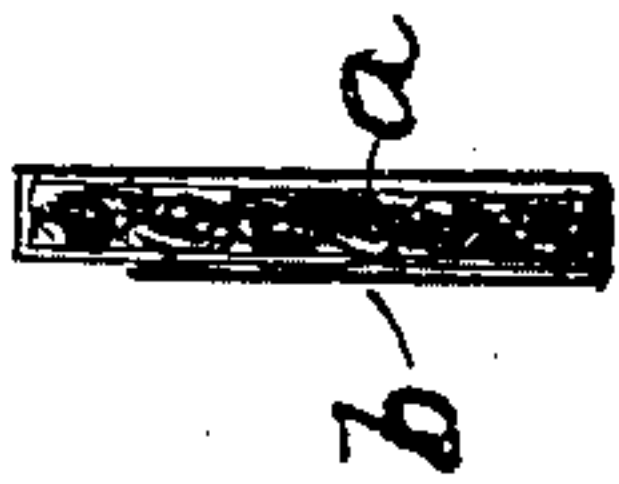


Fig. 1.

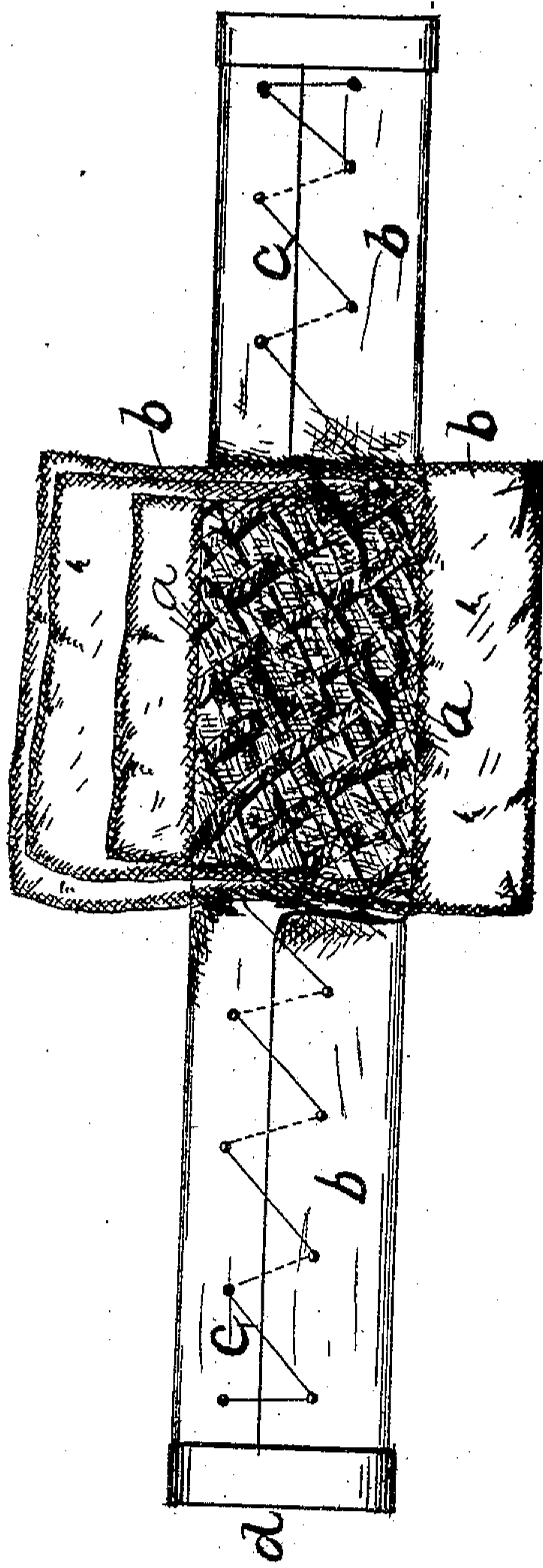
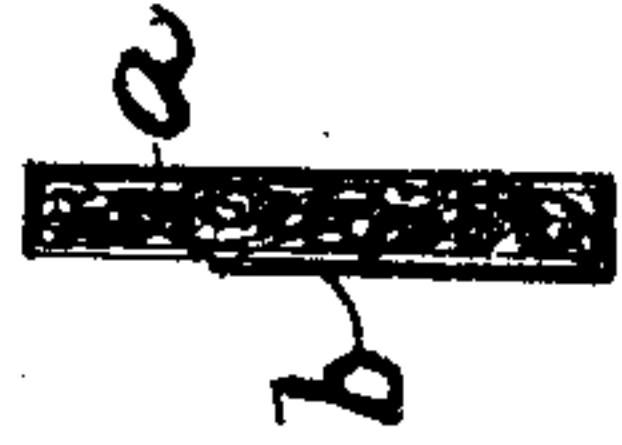


Fig. 2.



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# UNITED STATES PATENT OFFICE.

JAMES DICKSON AND ROBERT GEORGE SHAPCOTT, OF LONDON, ENGLAND.

## DYNAMO-BRUSH.

SPECIFICATION forming part of Letters Patent No. 549,502, dated November 12, 1895.

Application filed July 7, 1893. Renewed June 24, 1895. Serial No. 553,924. (No model.) Patented in England November 16, 1891, No. 19,854.

*To all whom it may concern:*

Be it known that we, JAMES DICKSON and ROBERT GEORGE SHAPCOTT, subjects of the Queen of Great Britain, and residents of St. Albans, London, in the county of Middlesex, England, have invented certain new and useful Improvements in Dynamo-Brushes, (for which we have obtained a patent in Great Britain, No. 19,854, dated November 16, 1891,) of which the following is a full, clear, and exact specification thereof.

This invention relates to a novel, simple, and cheap manufacture of flexible brushes for dynamos and like machines.

In carrying out this invention we take suitable metal wires and plait the same and then compress it so as to produce a flat band of the desired width and thickness, which band is inclosed in a jacket or sheath of metal-wire gauze.

To enable our invention to be fully understood we will describe how it can be carried into practice by reference to the accompanying drawings, in which—

Figure 1 is an elevation of a dynamo-brush made according to our invention from a single plait of metal wire extending the whole width of the brush, part of the jacket or sheath being cut and laid open at the center of the brush to show the arrangement of the wires. Fig. 2 is a sectional end view of the same. Figs. 3 and 4 are similar views to Figs. 1 and 2, but are intended to show a brush made of several separate plaits of wire placed side by side and parallel with one another.

Similar letters refer to similar parts throughout the several views.

In the dynamo-brush shown in Figs. 1 and 2, *a* shows a number of metal wires plaited and compressed so as to produce a flat band,

as illustrated in Fig. 2. *b* is the jacket or sheath in which we inclose the band *a*, of wire, which jacket or sheath consists of a sheet of metal-wire gauze wrapped around the flat wire band and having its outer end secured by stitching with wire *c*.

The end of the brush which is intended to be held to the machine is covered in any suitable way, such as by means of a cap *d*.

The brush shown in Figs. 3 and 4 is similar to that described with reference to Figs. 1 and 2, except that the wires *a*, instead of being made into a single plait and extending the whole width of the brush, are made into separate plaits laid side by side.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

1. In a dynamo brush, the plaited and compressed wires *a*, inclosed in the wire gauze jacket *b*, having its outer edges secured by wire stitches *c*, and its ends covered by the securing cap *d*, all for the object specified and substantially in the manner described.

2. In dynamo brushes, the metal wires *a*, plaited as described, the jacket *b*, for holding the wires *a*, the lacing or stitching wires *c*, for holding the jacket together and the cap *d*, placed over the ends of the covered wires, all combined for the purpose set forth and described.

In testimony that we claim the foregoing we have hereunto set our hands this 1st day of November, 1892.

JAMES DICKSON.  
ROBERT GEORGE SHAPCOTT.

Witnesses:

WM. THOS. MARSHALL,  
PERCY E. MATTOCKS.