

(No Model.)

W. VOM BRAUCKE.
METAL BRUSH FOR DYNAMOS.

No. 527,766.

Patented Oct. 23, 1894.

Fig. 1.

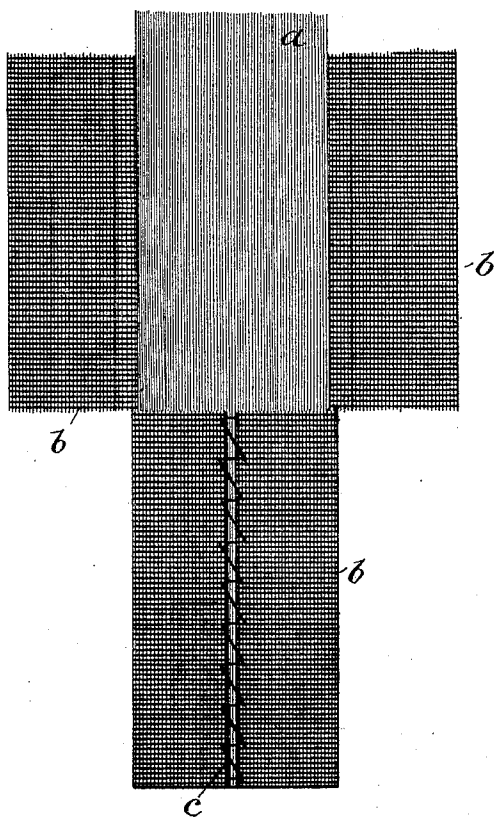


Fig. 2.



Witnesses

J. G. Hinkel
Everett Ellis

Wilhelm vom Braucke
Inventor

By
Forster Freeman
Att'y's

UNITED STATES PATENT OFFICE.

WILHELM VOM BRAUCKE, OF THMERTERBACH, NEAR WESTIG, GERMANY.

METAL BRUSH FOR DYNAMOS.

SPECIFICATION forming part of Letters Patent No. 527,766, dated October 23, 1894.

Application filed July 2, 1894. Serial No. 516,365. (No model.)

To all whom it may concern:

Be it known that I, WILHELM VOM BRAUCKE, a subject of the King of Prussia, residing at Thmerterbach, near Westig, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in or Relating to Metal Brushes for Dynamos, of which the following is a specification.

My invention relates to a metal brush for dynamos and it has for its purpose to prevent the wear of the collector or commutator and to assure notwithstanding always an intimate contact with the latter.

Figure 1 represents my invention as ordinarily constructed in use; and Fig. 2 is a transverse sectional view thereof.

The new brush consists of thin wires or threads *a* of copper or copper alloys which are not twisted but loosely laid side by side. To combine these threads with each other and to hold them together they are inclosed or wrapped in a tissue *b* consisting of a tress-work made of fine metal wire which may be stitched together by silk threads *c* or the like. Any optional number of copper wires may be laid side by side according as it is intended to manufacture a more or less large brush. The electric current flows of course in the longitudinal direction through the brush.

The copper, &c., wires are preferably employed in a not glowed condition, so that it preserves the largest possible amount of elasticity.

In comparison with the brushes heretofore used and made of wire-work my new brushes manufactured according to the present invention offer considerable advantages. Owing to the very large number of copper, &c., wires arranged side by side a very large cross section is attained, which prevents injurious heating of the brushes. In consequence thereof production of spark is nearly entirely

avoided in these new brushes. On account of the flexibility and the low degree of hardness of the material employed, the wear is entirely transferred to the brushes and the collector or commutator is not attacked at all. The elasticity of the not glowed copper threads offers moreover the advantage, that only a very low pressure exerted on the brushes is necessary for pressing them continuously intimately against the collector. By this a great inconvenience adherent to the brushes heretofore used and made of copper tress-work is avoided, as these brushes under the required very strong pressure wear rapidly, while the new brush has for the above said reasons a much longer life. Finally the thin fine wires are so flexible and soft, that even at a very low pressure exerted on the brushes a quite uniform wear takes place, and for this reason even after a long use they always intimately lean against the collector.

As the copper threads are used directly as such and need not be twisted together to a tress-work, as in the heretofore known brushes, the manufacture of the new brushes is of course cheaper and more simple which, in respect to the considerable demand of commutator brushes, is to be taken into consideration.

I claim—

Metal brushes for dynamos consisting of a large number of thin threads or wires of copper or copper alloys laid loosely side by side and held together by a metal wire-cloth, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM VOM BRAUCKE.

Witnesses:

R. E. JAHN,
T. H. STRAUSS.