

(No Model.)

J. F. KESTER & F. C. ATHERTON.
COMMUTATOR BRUSH.

No. 578,016.

Patented Mar. 2, 1897.

Fig. 1.

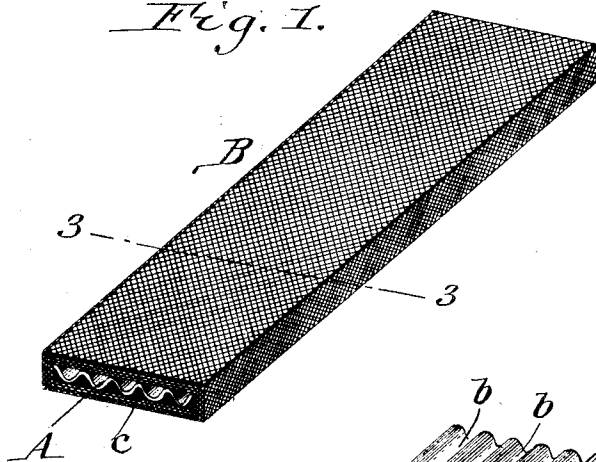


Fig. 2.

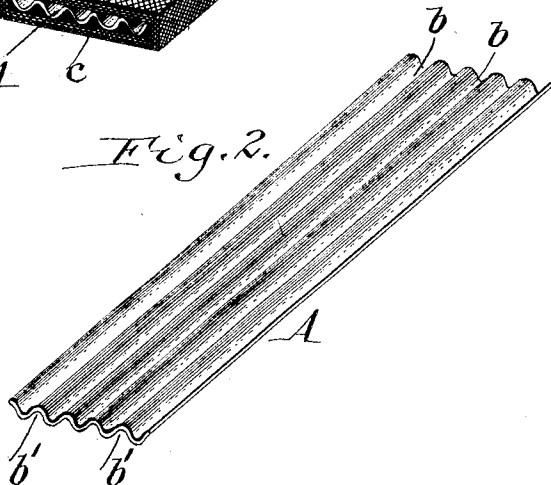
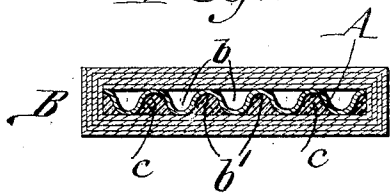


Fig. 3.



*J. F. Kester
F. C. Atherton*

*Witnesses:
Ernest Pulsford
Thos. L. Popp.*

*Inventors.
By Wilhelm Pommur
Attorneys.*

UNITED STATES PATENT OFFICE.

JESSE F. KESTER AND FISHER C. ATHERTON, OF BUFFALO, NEW YORK.

COMMUTATOR-BRUSH.

SPECIFICATION forming part of Letters Patent No. 578,016, dated March 2, 1897.

Application filed June 16, 1896. Serial No. 595,752. (No model.)

To all whom it may concern:

Be it known that we, JESSE F. KESTER and FISHER C. ATHERTON, citizens of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Commutator-Brushes, of which the following is a specification.

This invention relates to a commutator-brush for electric dynamos and motors, and has the object to produce a comparatively stiff brush for this purpose which is self-lubricating and which is provided with air-passages whereby the same is ventilated and prevented from becoming heated.

In the accompanying drawings, Figure 1 is a perspective view of our improved commutator-brush. Fig. 2 is a similar view of the corrugated core of the brush. Fig. 3 is a cross-section, on an enlarged scale, in line 3 3, Fig. 1.

Like letters of reference refer to like parts in the several figures.

A represents the core of the commutator-brush, and B the body or covering which surrounds the core. The core consists of a transversely-corrugated sheet of metal, preferably aluminium, forming longitudinal grooves *b b'* in its upper and lower sides, respectively. The grooves in one side of the core, preferably the lower side, are filled with a filling *c*, of graphite or other lubricating material. The body or covering of the commutator consists, preferably, of a sheet of wire-gauze, which is wound transversely around the core, so as to leave the ends of the latter exposed. The outermost layer of the wire-gauze covering is secured to the adjacent inner layer in any suitable manner—for instance, by soldering the same to the adjacent layer.

The wear of the core and covering, as the

brush bears with one end against the rotating commutator, is reduced to a minimum by reason of the graphite filling in the core, which constantly lubricates the brush. The longitudinal passages formed in the upper side of the core permit of a free circulation of air through the brush, thereby avoiding heating of the same. The longitudinal beads or ribs which are formed in the core by the transverse corrugations serve to stiffen the brush and prevent the same from being bent unduly when the same is pressed against the commutator.

We claim as our invention—

1. A commutator-brush consisting of a corrugated core and a wire-gauze covering surrounding the core, substantially as set forth.

2. A commutator-brush consisting of a grooved core, a lubricant arranged in some of the grooves of the core while the remaining grooves remain unobstructed and form air-passages, and a body or covering surrounding the core, substantially as set forth.

3. A commutator-brush consisting of a transversely-corrugated core forming longitudinal grooves in its opposite sides, a lubricant arranged in the grooves in one side of the core and a body or covering surrounding the sides of the core, substantially as set forth.

4. A commutator-brush consisting of a corrugated core and a wire-gauze body or covering wound around said core, substantially as set forth.

Witness our hands this 8th day of June, 1896.

JESSE F. KESTER.
FISHER C. ATHERTON.

Witnesses:

JNO. J. BONNER,
ELLA R. DEAN.