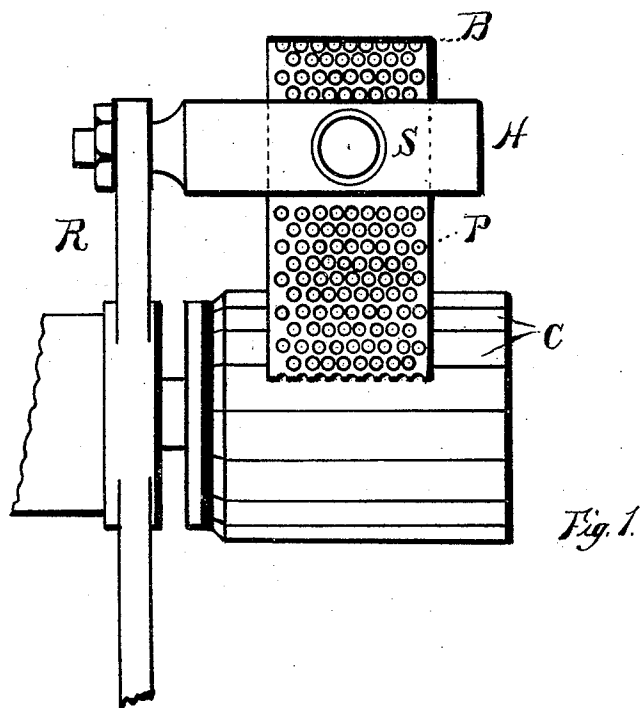
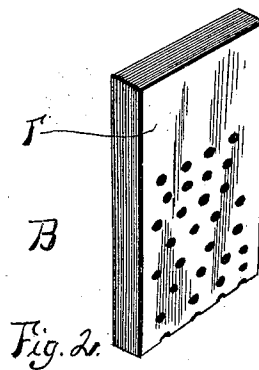


(No Model.)

C. L. COFFIN.
COMMUTATOR OR COLLECTOR BRUSH.

No. 545,347.

Patented Aug. 27, 1895.



WITNESSES
Arthur Guinness
Amelia J. Williams

INVENTOR
Charles L. Coffin.

UNITED STATES PATENT OFFICE.

CHARLES L. COFFIN, OF DETROIT, MICHIGAN.

COMMUTATOR OR COLLECTOR BRUSH.

SPECIFICATION forming part of Letters Patent No. 545,347, dated August 27, 1895.

Application filed February 5, 1895. Serial No. 537,406. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. COFFIN, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Commutator or Collector Brushes, of which the following is a specification.

My invention consists in an improvement in commutator or collector brushes for dynamos or electric motors, hereinafter fully described and claimed.

Figure 1 is a plan view of a commutator showing one brush and a portion of the brush-holding mechanism, and Fig. 2 is a detail perspective view of a brush embodying my invention.

C represents the commutator of a dynamo or motor; R, the rocker-arm, which carries the brush-holders, one of which is shown at H, and S represents a set-screw, which clamps the brush in holder A. All of these parts are old and well known and form no part of my invention.

B represents my improved brush or collector strip, consisting of a thin sheet of metal, preferably copper, perforated, as shown at P. The perforations are preferably staggered, as shown, as this causes the end of the brush to wear better; but they may of course be in regular lines. The perforations P are so arranged as to preserve a continuous edge to the strip, as in Fig. 1, or they may be arranged so as to leave a continuous edge to

the strip and with a non-perforated upper portion, as in Fig. 2. The perforations P permit the access of air to the interior of the brush and prevent overheating, which is such a great defect in brushes as ordinarily made. The continuous edge affords an elastic flexible boundary surface and presents no sharp points or indentations to catch the wiping-cloths.

The modifications shown in Fig. 2, having the solid non-perforated upper portion, is better adapted to certain forms of brush-holders than the brush shown in Fig. 1.

In practice each brush will preferably be made up of a number of thin perforated strips, as shown in Fig. 2.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A commutator or collector brush consisting of a perforated metal strip having a continuous edge.

2. A commutator or collector brush consisting of a strip of sheet metal perforated a portion of its length, with a continuous edge along the perforated portion.

3. A commutator or collector brush consisting of a strip of sheet metal comprising a solid non perforated portion and a perforated portion having a continuous edge.

CHARLES L. COFFIN.

Witnesses:

GEO. H. LOTHROP,
AMELIA J. WILLIAMS.