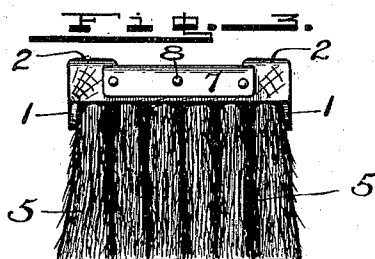
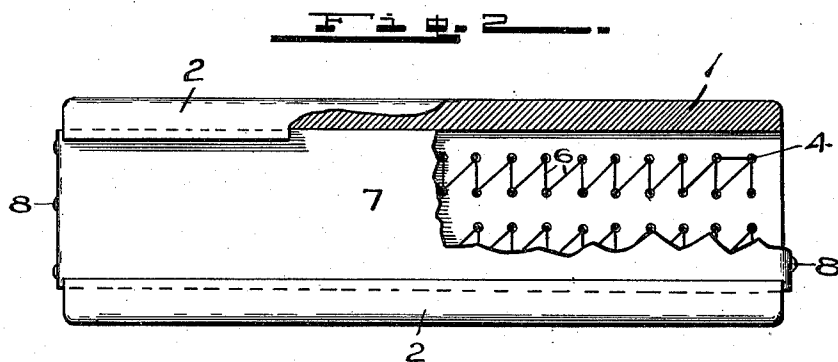
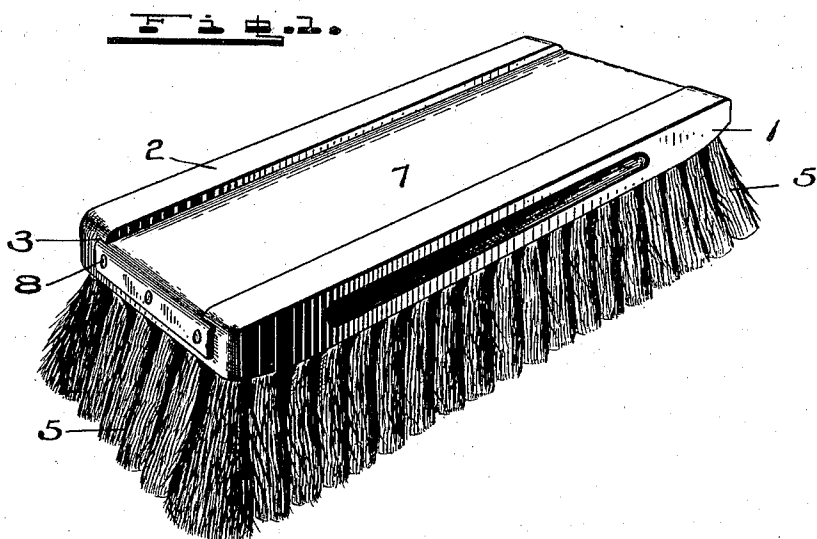


(No Model.)

E. I. MILLER.
BRUSH.

No. 578,999.

Patented Mar. 16, 1897.



WITNESSES:

F. W. Hoerner.
Julia Green.

INVENTOR:

Edward L. Miller
By V. H. Lockwood
His ATTORNEY

UNITED STATES PATENT OFFICE.

EDWARD I. MILLER, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE
INDIANAPOLIS BRUSH COMPANY, OF SAME PLACE.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 578,999, dated March 16, 1897.

Application filed March 24, 1896. Serial No. 584,718. (No model.)

To all whom it may concern:

Be it known that I, EDWARD I. MILLER, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Improvement in Brushes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to the construction of brushes whereby they are rendered easy to make, sightly, and durable.

The full nature of my improvements will be understood from the accompanying drawings and the description and claim following.

In the drawings, Figure 1 is a perspective of my brush. Fig. 2 is a plan view of the same with portions broken away. Fig. 3 is an end view of the brush.

In the brush-head 1, which may be made of wood or other suitable material, I centrally cut out or remove a portion of the upper surface, so as to leave a longitudinal depression, with the longitudinal strips 2 on either side, substantially as shown. These longitudinal strips have extending along their inner edges an inwardly-extending lip 3, so as to form a groove between said strip and the body of the brush-head. I then bore series of holes 4 in the under side of the brush-head, as has heretofore been the custom, permitting said holes to extend through the recessed portion of the brush-head, as shown in Fig. 2. Into these holes I extend bent bunches of fiber 5, catching them and holding them in place by the wire 6, as seen in Fig. 2 and as is well known to brush-makers. This construction of the brush-head permits the fastening of the bunches of fiber in place by the wire 6 to be done very readily and to be well done, because the parts are accessible. After having securely fas-

tened in place the fiber I make a metallic strip 7 wide enough to slip into the recess in the upper side of the head and to permit its edges to fit tightly in the grooves formed by the lips 3. When in place, the ends of this metallic strip are bent downward and secured to the ends of the head by the tacks 8. The wire 6 and metallic back 7 are preferably made of copper or other non-corrosive substance. This enables me to have not only a brush of unusual strength, but also to have one whose fastenings are reliable, whose finish is attractive and permanent in character, and which is free from injury by water, as there is no portion of it that water can injure. While I show in the drawings a scrubbing-brush, it is obvious that the same features could be adopted in other kinds of brushes with equal advantage.

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

A brush comprising a head longitudinally and centrally recessed in the back thereof with the edges of such recess provided with a groove, apertures extending through the brush-head, fibers inserted in such apertures, wires securing the fibers within such apertures, and a metallic strip placed within the recess in the back of the head and over the wires that secure the brush fibers, the edges of such strip extending into the groove at each side of the recess and its ends turned down and secured to the ends of the brush-head, substantially as shown and described.

In witness whereof I have hereunto set my hand this 13th day of March, 1896.

EDWARD I. MILLER.

Witnesses:

V. H. LOCKWOOD,
ZULA GREEN.