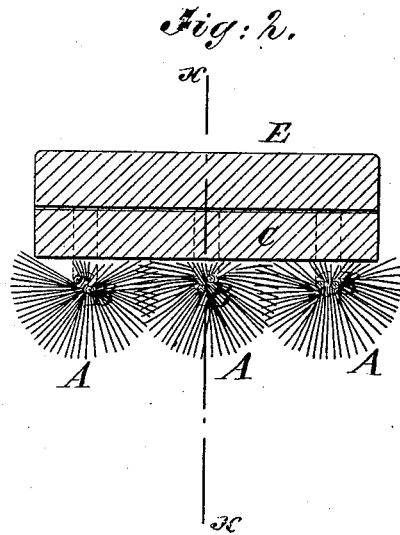
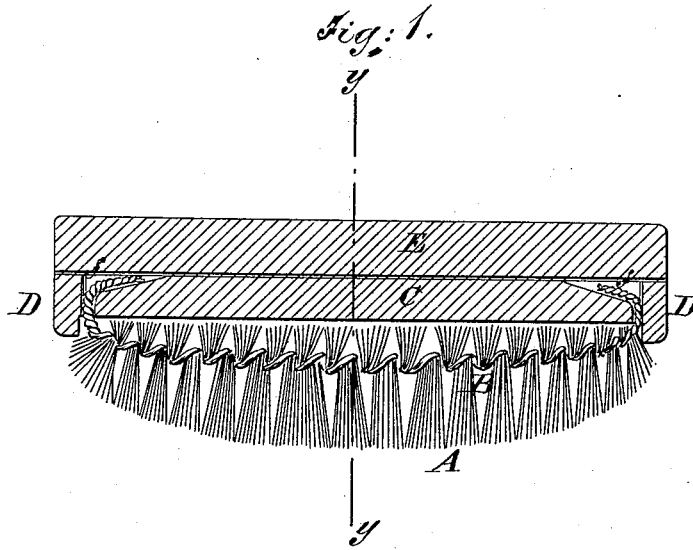


M. LEINER.

Brush.

No. 166,789.

Patented Aug. 17, 1875.



WITNESSES:

Chas. Nida
A. J. Terry

INVENTOR:

Moritz Leiner
BY *mmuffe*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MORITZ LEINER, OF NEW YORK, N. Y.

IMPROVEMENT IN BRUSHES.

Specification forming part of Letters Patent No. **166,789**, dated August 17, 1875; application filed December 19, 1874.

To all whom it may concern:

Be it known that I, MORITZ LEINER, of the city, county, and State of New York, have invented a new and useful Improvement in Brushes, of which the following is a specification:

This invention relates to new and useful improvements in the construction of brushes; and consists of a brush having the twisted wire which secures the bristles fastened over the block of the brush, the invention applying only to brushes which have blocks of wood or metal or other suitable material, and of sections of twisted or braided wire and bristles.

In the accompanying drawing, Figure 1 is a longitudinal section of Fig. 2, taken on the line *x x*. Fig. 2 is a cross-section of Fig. 1, taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

This brush is composed of bristles, (or other material representing bristles,) which are confined between two or more wires twisted together with the ends turned or bent over the block, and with a cap on the block substantially as represented, or on the opposite sides of the block at the handle end when the bristles are applied to both sides of said block.

A are the bristles, which may be hogs' bristles, whalebone, or other material. B represents the wires, between which the bristles are confined, by twisting or braiding the wires together. The wires thus twisted or braided are left long at each end, and are bent up and over the ends or sides of the block, as seen in Fig. 1, and thus fastened. The inner side of

the bristles may be clipped off near the wires, so as to bring the wires near the side of the block. The wires are drawn over the block with pliers or other suitable instruments. In Fig. 1 only one section of the bristles and wires are shown. Any desired number of them are used to form a brush, arranged substantially as seen in Fig. 2.

C is the block, the form and size of which determines the form and size of the brush. There may be strips of wood or metal D on the sides or ends, (over the wires,) as seen in Fig. 1, and there may be a cap-piece, E, to cover the whole, if desired, to make a hand-somer finish of the brush.

I do not confine myself to the manner shown of twisting the wires, trimming the bristles, or finishing the brush. The invention is in the manner of fastening the sections of bristles and wires to the block, as shown in Fig. 1.

The wire ends *f* may be fastened with tacks or with staples, or in any other manner, but in practice I have found the twisted wires sufficiently strong and rigid to securely hold the sections to the back.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with block C, of the bristle-holding wires B, twisted and fastened over the block, as and for the purpose specified.

MORITZ LEINER.

Witnesses:

C. SEDGWICK,
T. B. MOSHER.