

R. ASHWORTH.

Brushes.

No. 153,229.

Patented July 21, 1874.

Fig. 1.

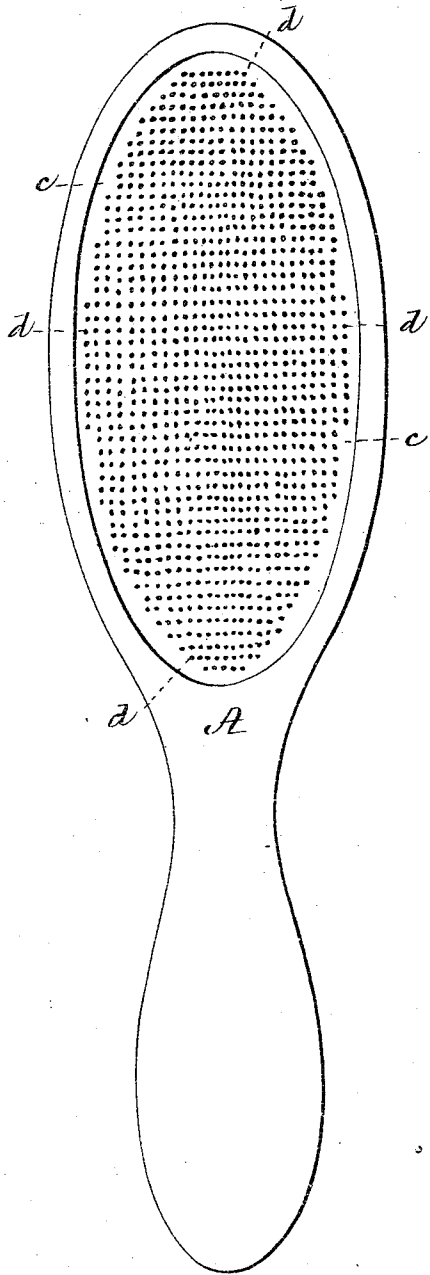
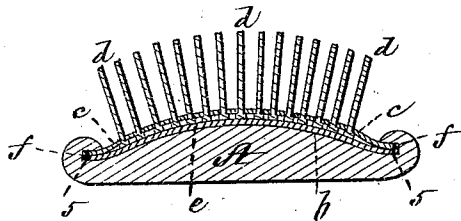


Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT ASHWORTH, OF FALL RIVER, ASSIGNOR TO HIMSELF AND BENJAMIN POLAND, OF ARLINGTON, MASSACHUSETTS.

IMPROVEMENT IN BRUSHES.

Specification forming part of Letters Patent No. **153,229**, dated July 21, 1874; application filed May 28, 1874.

To all whom it may concern:

Be it known that I, ROBERT ASHWORTH, of Fall River, in the county of Bristol and State of Massachusetts, have invented certain Improvements in the Manufacture of Brushes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a plan of a brush constructed in accordance with my invention. Fig. 2 is a transverse section through the same.

This invention relates to certain improvements in the manufacture of brushes composed of wires set in a soft vulcanized-rubber back, for which Letters Patent of the United States were granted to me August 6, 1872.

In the said brush the soft backing material for holding the wires is set into a recess in the handle or stock, the edge of the backing being confined by a ring which is sprung into place within the dovetailed or undercut edge of the recess.

This method of fastening the backing material answers a good purpose, but my present invention has for its object to produce a cheaper and neater, and, at the same time, equally secure means of fastening, whereby I am enabled to dispense with the confining-ring, and thereby reduce the cost of manufacture; and my invention consists in providing the handle or stock of the brush with a groove extending laterally under and entirely around the edge of the recess in which the backing material is placed, this groove being for the reception of the edge of the backing material, which is additionally secured and prevented from being drawn out of the groove by cement or otherwise.

My invention also consists in providing the soft backing material in which the wires are set with an auxiliary back formed of leather or other suitable material, and secured thereto around the edge, the entire inner surface of the auxiliary back being cemented directly to the handle or stock, by which means it is securely held and all liability of the backing becoming detached effectually prevented, while the elasticity of the brush is not impaired, as would be the case if the inner surface of the

backing through which the wires pass were cemented directly to the stock.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents the handle or stock of the brush, which may be made of wood, hard rubber, or other suitable material. In the front face of the handle is formed a recess, *b*, for the reception of the soft backing material, composed of a piece, *c*, of vulcanized rubber or other suitable material, through which the headed wires *d* have been previously forced from the back, and a piece, *e*, of leather or other suitable material, which forms an auxiliary back, and is stitched to the piece *c* around its edge, as seen at 5, Fig. 2. Extending laterally under and entirely around the edge of the recess *b* is a groove, *f*, for the reception of the edge of the backing material *c*, a coating of cement (for example, gum-shellac dissolved in alcohol) having been previously applied to the groove and over the entire surface of the recess *b*, which, when dry, holds the backing in place, its edge being securely confined within the groove and effectually prevented by the cement from being drawn out of it by any accidental strain.

I am thus enabled to cement the entire inner surface of the auxiliary back directly to the stock, and thereby secure it firmly in place without the elasticity of the brush being in the least impaired, as would be the case if the piece *c* were cemented in the same way to the stock, the heads of the wires being free to move between the pieces *c* and *e*, which are held together, as before described, by the stitching at the edge which lies within the groove *f*.

By the employment of this groove the edge of the backing is entirely concealed from view and securely held in place without the use of the confining-ring heretofore employed, thus considerably reducing the cost of the brush, while, at the same time, a neater and more finished appearance is presented than heretofore.

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

1. A brush the handle or stock A of which

is provided with a groove, *f*, extending under and entirely around the edge of the recess *b*, for confining the edge of the backing material, substantially as set forth.

2. A brush in which the backing *c*, containing the headed wires *d*, and the auxiliary backing *e*, secured thereto around the edge and cemented within a recess in the handle or stock

A, are combined, substantially as and for the purpose described.

Witness my hand this 23d day of May, A. D. 1874.

ROBERT ASHWORTH.

In presence of—

P. E. TESCHEMACHER,
N. W. STEARNS.