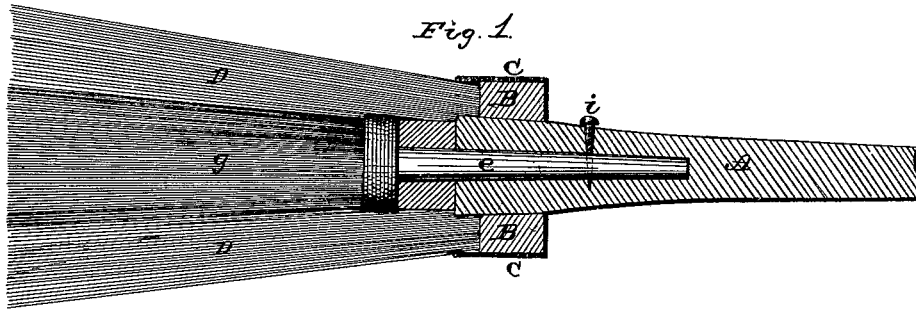


H. ROSENTHAL.

BRUSH.

No. 188,959.

Patented March 27, 1877.



WITNESSES.

J. W. Garnier
R. M. Barr.

INVENTOR.

H. Rosenthal.
per
F. A. Schmann,
att'y.

UNITED STATES PATENT OFFICE.

HENRY ROSENTHAL, OF NEW YORK, N. Y.

IMPROVEMENT IN BRUSHES.

Specification forming part of Letters Patent No. **188,959**, dated March 27, 1877; application filed January 15, 1877.

To all whom it may concern:

Be it known that I, HENRY ROSENTHAL, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in brushes; and it consists in the method of treating the butt-ends of the bristles with an oily cement, and then subjecting the ends to the action of heat, as will be more fully described hereinafter.

Figure 1 is a longitudinal section of my brush.

A represents the handle, B the block, C the ferrule, and D the bristles, of a common paint-brush.

The butts of the bristles, it will be noticed, are inserted a much shorter distance into the ferrule than is usual, and while in this position they have their butts wetted with a cement of hot oil and shellac, or other suitable substances. They are then laid before a hot fire, or exposed to the heat in any other suitable manner, for a sufficient length of time to cause the oily cement to penetrate into the bristles, and then, while hot, a wooden plug or washer is inserted into the hollow space in the ferrule, and the handle is then driven through the center of the bristles, and when cold the butts of the bristles inside of the ferrule have hardened into a solid, compact mass.

By thus treating the bristles, but a very short part of their length need be inserted into the ferrule, and thus I am enabled to make a longer brush from the same length of bristles.

The end of the handle A is made hollow for a suitable distance, and into this hollow is inserted the handle *e* of a smaller brush, the bristles *g* of which smaller brush fill the center of the bristles D of the larger brush, and thus form a solid brush. The handle *e* is held in position by means of a set-screw, *i*, by removing which the small central brush can be taken out and used by itself, independently of the larger one.

In this way two brushes are combined in one, either of which can be used alone or both together, and a more solid brush produced.

This manner of forming the brush may be applied to other forms than the common round brush.

I am aware that the ends of the bristles have been wetted with a cement that would, when dry, pack the ends of the bristles together, and this I disclaim.

My invention consists in subjecting the bristles thus treated to the action of heat, whereby the cement is made to penetrate the bristles, which it will not otherwise do, and thus, when dry, form a more solid, compact mass. Having thus described my invention, I claim—

The method described of treating the butt-end of the bristles with an oily cement, then subjecting them to the action of heat, and driving in the handle, so as to compress them into a solid mass, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of January, 1877.

HENRY ROSENTHAL.

Witnesses:

GEORGE E. ABBOTT,
MANN MAGNUS.