

(No Model.)

J. SULLIVAN.

BRUSH.

No. 260,909.

Patented July 11, 1882.

Fig. 1.

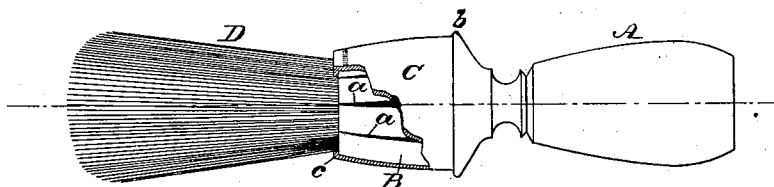


Fig. 2.

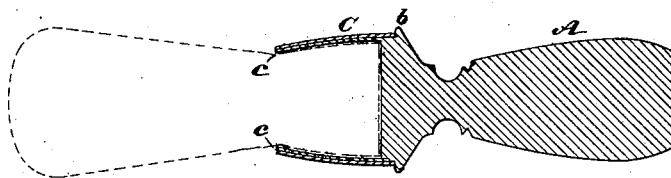
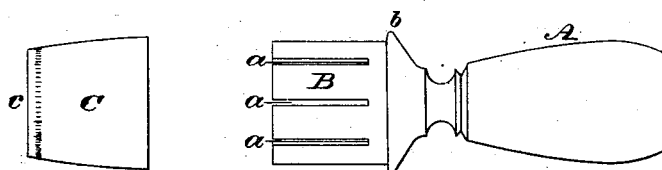


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN SULLIVAN, OF PHILADELPHIA, PENNSYLVANIA.

## BRUSH.

SPECIFICATION forming part of Letters Patent No. 260,909, dated July 11, 1882.

Application filed March 3, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SULLIVAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Brushes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation, partly broken away, of the brush embodying my invention. Fig. 2 is a longitudinal section thereof, the knot or bunch of bristles being shown dotted. Fig. 3 is a side elevation of separated parts of the brush.

Similar letters of reference indicate corresponding parts in the several figures.

A brush has been formed of a handle with a split socket, a conical ferrule, and a knot or bunch of bristles; but, to my knowledge, the ferrule is not applied to the socket over the knot or bunch and driven toward the handle, so as to compress and cover the entire surface of the socket, this feature being the subject of my invention. My ferrule has an inwardly-projecting flange, which abuts against and conceals the front edge of the socket, as well as covers the front ends of the splits of the socket as a protection therefor, this being another feature of my invention.

Referring to the drawings, A represents the handle, formed of wood; B, the socket; C, the ferrule, and D the knot or bunch of bristles of the brush embodying my invention.

The socket B is integral with the handle and made of cylindrical form, and is furthermore provided with longitudinally-extending cuts or splits *a* and a circumferential bead, *b*, at or about the place of junction of the handle and socket.

The ferrule C is of conical form, and has at its front end an inwardly-projecting flange, *c*. The back end of the ferrule, being the widest, is of diameter sufficient to pass over the forward end of the cylindrical socket B. The

socket has a quantity of cement applied to it, so as to fill the splits *a* and cover its exterior and interior surface. The knot of bristles is then inserted in the socket and the ferrule driven over the socket, the ferrule reaching the socket over the bunch of bristles. The split socket is contracted by the ferrule and assumes a conical form, thus compressing the portion of the knot of the bristles within the socket, and also causing said portion to assume a conical form, whereby by the assistance of the cement within the socket the knot is securely connected to the socket. The cement in the splits *a* holds the sections of the sockets firmly together, and as the ferrule is securely held on the socket said ferrule will not leave its position or permit the socket to separate, thus increasing the hold of the socket on the knot, this security being still further increased if the ferrule is made with somewhat of a swell, as shown. The flange *c* abuts against the forward edge of the socket, thus concealing said edge and preventing direct contact of water or other material used on the brush with said edge. It also covers the ends of the splits and prevents injurious action of said material on the cement in the splits, and in a measure prevents the entrance of said material into the socket, whereby the durability of the socket and of the knot, and consequently of the brush, is increased.

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

The wooden handle A, cylindrical socket B, integral with the handle, having splits *a* and bead *b*, and the ferrule C, having an inwardly-projecting flange, *c*, combined and operating substantially as and for the purposes set forth.

JOHN SULLIVAN.

Witnesses:

JOHN A. WIEDERSHEIM,  
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