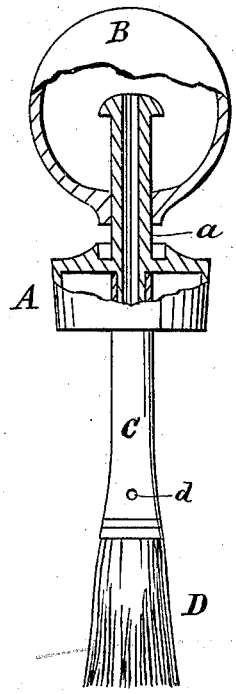
J. B. DAVIDS.
Mucilage-Brush.

No. 212,904. Patented Mar. 4, 1879.



Witnesses:
H. A. Daniels
W. Burris

Inventor:
John B. Davids
by his attorney
Thomas D. Stetson

UNITED STATES PATENT OFFICE.

JOHN B. DAVIDS, OF NEW YORK, N. Y.

IMPROVEMENT IN MUCILAGE-BRUSHES.

Specification forming part of Letters Patent No. **212,904**, dated March 4, 1879; application filed November 8, 1878.

To all whom it may concern:

Be it known that I, JOHN B. DAVIDS, of the city, county, and State of New York, have invented a certain new and useful Improvement relating to Brushes, whereof the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to that class of brushes known as "fountain-brushes," in which the mucilage or other liquid is supplied to the brush by means of a reservoir connected therewith.

The improved brush is especially adapted for use with mucilage-bottles, but may be employed for applying shoe-dressing, varnish, colors, and other liquids.

The invention consists in a fountain-brush composed of an elastic bulb or reservoir, a cap, a brush, and a tube extending from the elastic bulb to the brush, the said cap being placed between the elastic bulb and brush, and adapted to support the brush and its reservoir in the mouth of a bottle or mucilage-holder; also, in a peculiar construction of the supporting-cap, and also in the construction of the tube for holding the brush and for supplying the liquid thereto, it being provided with apertures in the sides for this purpose, as set forth in the claims.

The reservoir may be quickly and readily filled, and the supply of liquid to the brush is under perfect control of the user, and it is at the same time not liable to become clogged or get out of order, and may always be neat and clean.

The accompanying drawing forms a part of this specification, and represents what I consider the best means of carrying out the invention. It is an elevation partly in section.

A represents the cap to the mucilage-bottle, having on the upper surface a projection or tube, *a*, provided with a flange, knob, or cap. B is the reservoir, in the form of a hollow elastic or rubber bulb, attached to the tube *a*, the flange on the said tube preventing its ready removal. C is the brush-holder, consisting of a tube attached at its upper end to the under side of the cap A, and provided at the other end with the bristles D. The bristles D are held by clamping them between the sides of the tube, but other approved means may be used.

Apertures *d* are made to admit the flow of mucilage into and out of the tube above D.

In operation, the bulb or reservoir is filled by compressing the same to exclude the air, then placing the lower end of the brush-holder so as to hold the holes *d* below the surface of the mucilage or other liquid, and allowing the bulb to expand. The quantity of mucilage in the bulb may be regulated by raising the device when a sufficient quantity has been drawn thereinto.

To supply the mucilage to the brush, the bulb is compressed more or less, according to the quantity of mucilage required.

The projection or neck on the upper part of the cap is extended upward and the bulb is movable thereon, so that a longer handle may be given to the brush by moving the bulb outward, or it may be better employed in an inclined or inverted position if the bulb is close to the cap, as shown in the drawing. It is evident, however, that the cap with a shorter projection might be used in connection with the dependent brush.

One advantage of the length given to the part *a* lies in the ability thereby to better hold the bulb B nearly filled with mucilage by its gravity independent of the atmospheric pressure. This becomes important when by age or other cause the top of the bulb B becomes cracked, so as to leak air. By sliding the bulb B down in the position shown it will retain the mucilage for any length of time, and it will be ready to deliver it by either sliding it up or sufficiently compressing it, or both. But some of the advantages of my invention can be secured with the part *a* very short.

If desired, the upper part of the bottle-cap A may be formed with a groove surrounding the upper projection, as shown; but some of the benefits of my improved device may be obtained without this feature.

I have described the bulb attached to a tube or projection from the top of the cap; but it is evident that the tube which forms the brush-holder may be extended through the cap, and the hollow bulb may be attached thereto.

Many further modifications may be made.

Instead of using the bristles or hair to form a brush, a piece of sponge, cork, rubber, or other suitable soft material may be secured in the end of the tube C; but I prefer the brush, as less apt to get out of order.

I can make the cap A, the upper part of the tube *a*, and the lower part, C, all in one piece of cast metal; or I can make the tubular parts C and *a* in one piece of drawn tube or wrought material, and the cap A in soft metal or other suitable material cast thereon. I can make the entire metal part of malleable cast-iron.

I can use one or more cross-bars instead of the close cap A. Anything which will serve to keep the brush in the proper position when inserted in a bottle will suffice.

I am aware that a marking-brush has been made with an elastic bulb to serve as a reservoir for the marking-fluid. The present invention differs from brushes of this kind in the supporting-cap between elastic bulb and brush, the said cap also being of peculiar construction, and also in the mode of securing the brush in the tube, and of supplying the liquid to the brush by apertures in the sides of the tube.

I claim as my invention—

1. A fountain-brush consisting of an elastic bulb, B, brush material D, tubular parts C and *a*, and the cover A, as and for the purposes specified.

2. The tubular part C, having side aperture *d* over the brush material D, in combination with the latter and with the elastic bulb B of a fountain-brush, as herein specified.

3. The device described, composed of the elastic bulb B, the prolonged and knobbed tubular top *a*, cap A, lower tube, C, having one or more holes, *d*, and bristles D, adapted to serve with a mucilage-bottle, as herein specified.

In testimony whereof I have hereunto set my hand this 4th day of November, 1878, in the presence of two subscribing witnesses.

JOHN B. DAVIDS.

Witnesses:

W. COLBORNE BROOKES,

E. B. BOLTON.