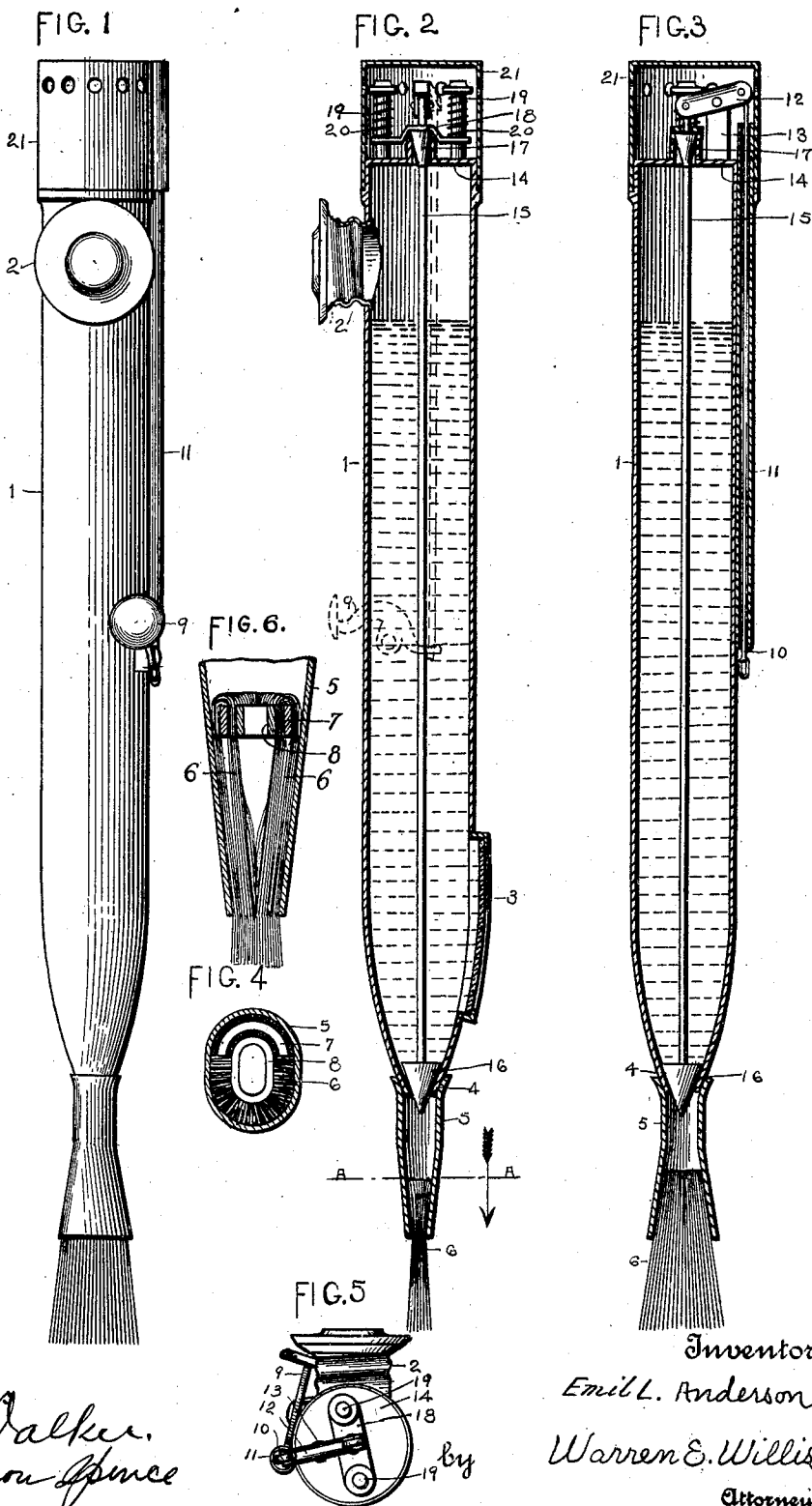


No. 828,364.

PATENTED AUG. 14, 1906.

E. L. ANDERSON.
FOUNTAIN BRUSH.
APPLICATION FILED SEPT. 27, 1904.



Witnesses
W. Walker
Harrison Jones

Inventor
Emil L. Anderson
Warren E. Willis
Attorneys

UNITED STATES PATENT OFFICE.

EMIL L. ANDERSON, OF PHILADELPHIA, PENNSYLVANIA.

FOUNTAIN-BRUSH.

No. 828,364.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed September 27, 1904. Serial No. 226,136.

To all whom it may concern:

Be it known that I, EMIL L. ANDERSON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Fountain-Brush, of which the following is a specification.

My invention relates to improvements in devices for containing, applying, and distributing mucilage or similar liquids, and has for its objects the production of means whereby the desired results are attained expeditiously and conveniently without soiling the person of the operator and without loss of material. I attain these objects by certain novel construction of the brush as set forth herein-after and shown in the accompanying drawings, which form part of this specification, in which—

Figure 1 is a front view of the fountain-brush assembled and ready for use. Fig. 2 is a side view in longitudinal section. Fig. 3 is also a longitudinal section taken at a right angle to the plane of Fig. 2. Fig. 4 is an enlarged cross-section on line A A of Fig. 2. Fig. 5 is a top or plan view showing the cover removed. Fig. 6 is a longitudinal section of the bristle-holding means with bristles applied.

Similar numbers refer to similar parts throughout the several views.

In the drawings, 1 is the hollow tubular handle of the reservoir-brush, made of any size and length convenient to hold and operate. Near its upper end is a nozzle or filling-hole 2, which is flanged, threaded, and screw-capped, as shown, or otherwise arranged to permit of readily supplying, renewing, or removing the liquid contents of the reservoir formed in the hollow handle and to hold the same therein secure from leakage.

Near the opposite lower end, lengthwise of the handle, is arranged a transparently-covered aperture or sight-glass 3 to permit observation of the quantity contained in the reservoir.

The lower end of the handle is contracted and forms interiorly a valve-seat 4. Attached to this end is a ferrule 5, flattened from a point midway in its length to its lower end and containing bristles 6.

The bristles are firmly held in place by being passed over a flattened annular ring 7, while another smaller ring 8 is pressed within, compressing the bristles between the outside

of ring 7 and the outside of the ring 8. They are further held by compression of the exterior tubular ferrule 5, which forms a constraining-band surrounding the whole.

The ferrule 5, continuing below the location of the said clamping-rings, keeps the bristles in such conformation that while the flexible portion of the brush has a central opening at its upper end the lower end is brought together in the ordinary form of a flat brush.

Midway in the length of the handle 1 is a small projection or bracket carrying a pin, on which is fulcrumed a thumb-lever 9. The upper end of this lever is conveniently located so as to be readily pressed by the thumb or a finger of the operator's hand which holds the brush. Its lower end engages with one end of a rod 10, passing through a covered guideway 11, and is connected at its opposite end with the valve-rod lever 12, which is fulcrumed on a standard 13, attached to the integral head end 14 of the handle 1.

The inner end of the lever 12 is approximately positioned over the center of the handle 1 and has attached to it the upper end of the valve-rod 15, which passes throughout the length of the handle, centrally thereof, and terminates in a conical valve 16, fitted to the valve-seat 4 at the lower end of the handle. At the upper end of the rod 15 below its connection 12 is secured another valve 17, fitted to a seat in the handle-head 14. Immediately above the valve 17 is a cross-piece 18, adapted to abut against a shoulder formed on the valve-rod 15, which passes through a central opening in it. The cross-piece 18 is further provided with two projecting arms, having holes which fit loosely over the studs 19 and are arranged to receive the pressure of the helical springs 20, which are held in compression between the said cross-piece and the head of the studs 19, the said studs being affixed in the head 14.

A cover or cap 21, having a series of openings for the admission of air, is detachably connected to the top of the brush and forms a screen and guard for the protection of the parts located there.

The construction of the valves is of the most simple character and the material used may be metal or something of a flexible nature, as rubber.

The lower valve may be considered as the main valve; but the upper is no less neces-

sary in admitting air and in maintaining absolute freedom from leakage when the valves are closed.

From this description it will be evident
 5 that pressure on the thumb-lever 9 is transmitted to the valve-rod 15, and simultaneously to the valves, causing them to open, allowing air to enter at the upper end and the liquid to flow out at the other in quantities
 10 as may be desired. As the liquid passes the valve it enters the opening at the top of the bristles and following down is spread as usual, with the exception that the supply can be accurately gaged to requirements, and the quantity used at one operation is limited only by
 15 the amount in the reservoir.

When the thumb-lever ceases to be depressed, the springs automatically press the valves to their seats, and as the valves cause
 20 the reservoir to be hermetically sealed when closed little evaporation can take place, and consequently there is comparatively no loss.

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

1. In combination with a hollow handle opened at both ends and provided with an inlet-opening, a brush secured to one open end
 30 of the handle, valves for the opened ends, a stem for the valves passing beyond one end of the handle, a rock-arm carried by the handle, one end of the arm being secured to the extended portion of the valve-stem, a rod secured to the opposite end of the rock-arm,
 35 said rod extending parallel with the handle on the exterior thereof, and means secured to the exterior of the handle for imparting motion to the rod in one direction.

2. In combination with a hollow handle
 40 opened at both ends and provided with an inlet-opening, a brush secured to one open end of the handle, valves for the opened ends, a stem for the valves passing beyond one end of the handle, a rock-arm carried by the handle,

one end of the arm being secured to the extended portion of the valve-stem, a rod secured to the opposite end of the rock-arm, said rod extending parallel with the handle on the exterior thereof, means secured to the exterior of the handle for imparting motion
 50 to the rod in one direction, and spring means for imparting motion to the handle in an opposite direction and holding the valves normally closed.

3. In combination with a hollow handle
 55 opened at both ends and provided with an inlet-opening, a brush secured to one open end of the handle, valves for the opened ends, a stem for the valves passing beyond one end of the handle, a rock-arm carried by the handle, one end of the arm being secured to the extended portion of the valve-stem, a rod secured to the opposite end of the rock-arm, said rod extending parallel with the handle on the exterior thereof, means secured to the exterior of the handle for imparting motion
 65 to the rod in one direction, and a guideway on the exterior of the handle for the rod.

4. In combination with a hollow handle opened at both ends and provided with an inlet-opening, a brush secured to one open end
 70 of the handle, valves for the opened ends, a stem for the valves passing beyond one end of the handle a rock-arm carried by the handle, one end of the arm being secured to the extended portion of the valve-stem, a rod secured to the opposite end of the rock-arm, said rod extending parallel with the handle on the exterior thereof, and a bell-lever secured to the exterior of the handle, one end of
 75 the lever engaging the rod.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EMIL L. ANDERSON.

Witnesses:

HENRY HAHN,
 WARREN E. WILLIS.