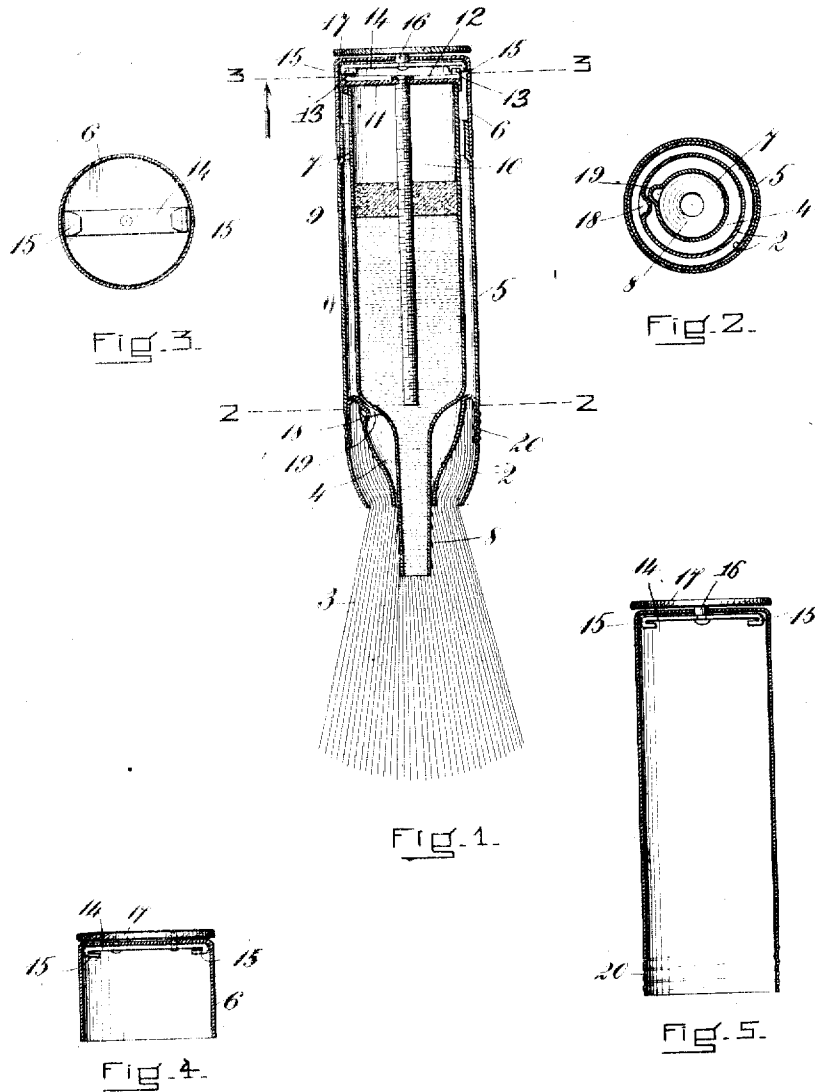


W. L. CLARK.
 FOUNTAIN BRUSH.
 APPLICATION FILED NOV. 13, 1906

953,372.

Patented Mar. 29, 1910.



WITNESSES=

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UNITED STATES PATENT OFFICE.

WALTER L. CLARK, OF NEW YORK, N. Y.

FOUNTAIN-BRUSH.

953,372.

Specification of Letters Patent.

Patented Mar. 29, 1910.

Application filed November 13, 1906. Serial No. 343,273.

To all whom it may concern:

Be it known that I, WALTER L. CLARK, a citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented new and useful Improvements in Fountain-Brushes, of which the following is a specification.

This invention relates to fountain brushes of that type in which the handle of the brush is made hollow and thus adapted to receive and conceal a detachable receptacle containing the material to be applied by the brush and located in position to discharge its contents upon the bristles.

My improvements relate more particularly to the construction of the reservoir or receptacle for the material and to the manner of combining the same with the brush proper and providing for the expulsion of its contents, and are herein represented as embodied in a shaving brush, being particularly intended to provide a serviceable brush of this character which will have certain advantageous features hereinafter set forth.

In the accompanying drawings, Figure 1 is a central longitudinal section through a shaving brush embodying my improvements, the clutch members hereinafter described being shown in side elevation; Fig. 2 is a cross section on the line 2—2 of Fig. 1; and Fig. 3 is a cross section on the line 3—3 of Fig. 1, showing the inner end of a cap or removable handle portion hereinafter described. Figs. 4 and 5 are longitudinal sectional views illustrating slight modifications.

In the drawings, 2 represents the body of the brush and 3 represents a mass of bristles carried thereby, the portion 2 being provided with an internal recess or aperture 4 leading to the interior of the mass of bristles. To the body portion 2 is secured a tubular or hollow handle portion 5 normally closed at its outer end, as by a cap 6, which cap is herein represented as telescopically fitted to the portion 5 so as to be removable therefrom. The parts 5 and 6 are thus adapted to contain and conceal a soap receptacle, which receptacle preferably consists of a tube 7 of such size as to fit loosely within the hollow handle and terminating at its inner end in an elongated neck or nozzle 8 adapted to pass through the aperture 4 in the body portion, the length of said nozzle being such that when the receptacle is in its

normal position within the hollow handle the discharge orifice of the nozzle will be located within the mass of bristles at such a point that the contents of the receptacle will be discharged directly upon the bristles, where said contents can be readily taken up and distributed. The provision of the receptacle with this elongated nozzle is an important feature of my invention, because it not only insures the discharge of the material at the proper point but also renders it impossible for any of the contents of the receptacle to be left behind when said receptacle is withdrawn from the brush handle, thus overcoming a serious objection which exists in all cases in which the material has to pass through a passage in the body of the brush after it leaves the receptacle and before it reaches the bristles, in which case, said passage always remains filled with the material after the brush has once been used, so that when the receptacle is removed the material left in this passage is apt to harden and choke up the passage, as well as to become foul and otherwise render the device impracticable and undesirable. My construction also contributes to the cleanliness of the device by preventing any of the contents of the reservoir from coming in contact with the body of the brush, and to the same end I prefer to make the tube 7 of glass or other vitreous and transparent or translucent material, which also makes it possible to determine by inspection the quantity of material contained in such tube at any time, by first removing the receptacle from the hollow handle.

For expelling the contents of the receptacle I provide a piston 9 originally located at the outer end of the tube 7 and having means for forcing it forward as desired, such as a threaded rod 10 passing through said piston and extending longitudinally within the tube 7 from one end to the other and also through a thin sheet metal cap 11 which closes the outer end of said tube, being shouldered to bear against the interior of said cap and provided at its outer end with a cross bar 12 or other suitable rotating device. Inasmuch as glass tubing cannot be drawn or blown with as uniform an internal diameter as exists in the case of a bored tube, I construct the piston 9 in such manner that it will be capable of a slight compression or expansion in an edgewise direction and will thus adapt itself per-

fectly to the internal contour of the tube 7 as it is moved along the same. I have found that a disk of felt is well suited to form such a piston, as it has sufficient compressibility and elasticity to adapt itself to the tube 7 as above described and also promotes economy of construction, because it does not have to be internally threaded to correspond with the rod 10 but may be caused to adapt itself to the threads on the latter by merely screwing said rod through the disk. Such a piston, if properly fitted to the tube, will be forced forward by the rotation of the rod 10 without itself rotating with respect to the tube, so that the employment of a longitudinal rib or bead on the tube for preventing the rotation of the piston is not necessary.

In preparing the receptacle for use, after the tube 7 has been filled with the desired material and the remaining parts have been assembled in proper relation, the cap 11 is secured to the outer end of the tube, preferably by spinning its edge over an annular bead formed on said outer end, and the nozzle 8 is then lightly sealed in any suitable manner. A simple and inexpensive form of receptacle is thus provided which may be furnished to customers independently of the brushes proper, so that the user of a brush may remove an empty receptacle and replace it by a full one as often as is necessary. It is contemplated in practice that the users will throw away the receptacles as fast as they have been emptied, and to this end those features which render the receptacle inexpensive of construction are of considerable importance, as is the fact that the receptacle itself cannot be readily refilled.

In using the brush, the rod 10 may evidently be rotated directly by means of the cross bar 12, if the cap 6 is first removed, but I prefer to provide for rotating said rod without removing the cap 6 or any other part of the handle of the brush, to which end the bar 12 is provided with a pair of outwardly-extending lugs 13 adapted to form one member of a clutch, the complementary member of which consists of a similar bar 14 located on the inner face of the closed end portion of the handle of the brush and provided with two inwardly-extending lugs 15 so arranged that upon the rotation of the bar 14 the lugs 15 will eventually engage the lugs 13 and then rotate the latter and with them the rod 10 in an obvious manner. As shown in Fig. 1 the bar 14 is secured to a pin 16 rotatably mounted in the end of the cap 6 and provided on the exterior of the cap with an operating head consisting of a milled disk 17, whereby provision is made for rotating the rod 10 without rotating the cap 6, but it will be evident that said bar 14 might be

rigidly secured to said cap 6, as shown in Fig. 4, in which case the rotation of the rod 10 would be secured by rotating the cap itself. In either case I provide means for preventing the rotation of the receptacle 7 with respect to the body portion of the brush, such as lugs 18 and 19 carried by said parts respectively and located in position for lateral engagement one with the other, as shown in Fig. 2.

Instead of being composed of the separate portions 5 and 6, the entire handle of the brush may be made removable at the point 20, as shown in Fig. 5, with substantially the same results, or both constructions may be employed in the same brush, as in Fig. 1, and the details of construction of my brush and receptacle may be modified in various other ways without departing from my invention, as will be evident.

I claim as my invention:

1. A fountain brush comprising a body portion carrying a mass of bristles and a hollow handle portion, a removable receptacle contained within said hollow handle portion and having an elongated discharge nozzle which is adapted to pass through said body portion and into the mass of bristles and is connected to the body of the receptacle so as to be necessarily inserted and removed therewith, and means for discharging the contents of said receptacle through its elongated nozzle.

2. In a fountain brush, the combination of a body portion having an opening leading to the interior of the mass of bristles, a hollow handle carried by said body portion, a detachable receptacle located within the handle and having an elongated integral discharge nozzle adapted to pass through the opening in the body portion and beyond the latter into the mass of bristles, and means for discharging the contents of said receptacle upon the bristles.

3. In a fountain brush, the combination with the body portion and bristles of a hollow handle carried thereby, a detachable receptacle located within said handle, in position to discharge its contents upon the bristles, a piston contained in said receptacle and means for operating the same, and means operable from the exterior of the handle for detachably engaging and operating said piston-operating means.

4. In a fountain brush, the combination with the body portion and bristles of a hollow handle carried thereby and comprising a removable portion, a detachable receptacle located within the handle, in position to discharge its contents upon the bristles, a piston contained within said receptacle and means for operating the same, and means carried by the removable portion of the handle for detachably engaging and operating said piston operating means.

5. In a fountain brush, the combination with the body portion and bristles of a hollow handle carried thereby and comprising a removable portion, a detachable receptacle located within said handle, in position to discharge its contents upon the bristles, a piston contained in said receptacle and a threaded rod for operating the same, a clutch member connected to said rod on the exterior of the receptacle, and a cooperating clutch member carried by the removable handle portion, and operable from the exterior of the brush.

6. As an article of manufacture, a receptacle adapted to be detachably applied to fountain brushes having rotatable means on the handle thereof, said receptacle comprising a tube closed at one end and having at its other end an elongated discharge nozzle of restricted diameter, a piston mounted to slide longitudinally in said tube, a threaded rod passing through said piston and through the closed end of the tube, and means carried by said rod on the exterior of the tube adapted to be rotated by the rotatable means on the brush handle.

7. As an article of manufacture, a brush comprising in combination a body portion having an opening leading to the bristles, a hollow handle carried by said body portion and adapted to receive a detachable receptacle provided with ejecting means for the

contents thereof, said handle comprising a removable portion, and a clutch member for engaging said ejecting means carried by the removable handle portion, on the interior of the latter.

8. In a fountain brush, the combination of a body portion having an opening leading through the same into the mass of bristles carried thereby, a hollow handle carried by said body portion and comprising a removable portion having a closed outer end, a receptacle adapted to be removably inserted into said hollow handle, said receptacle having an elongated nozzle adapted to pass through the opening in the body portion and into the mass of bristles, a piston located in said receptacle and a threaded rod passing through said piston and through the outer end of the receptacle, means for preventing the rotation of said receptacle with respect to the body portion of the brush, and cooperating clutch members carried respectively by the outer end of the threaded rod and by said removable handle portion.

In testimony whereof, I have hereunto subscribed my name this 7th day of November, 1906.

WALTER L. CLARK.

Witnesses:

F. S. TUTTLE,

E. D. CHADWICK.