June 5, 1928. 1,672,376

C. R. DE NARDIS ET AL

SELF FEEDING BRUSH

Filed July 9, 1927

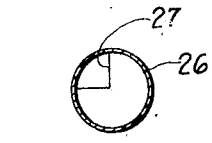


FIG. 3.

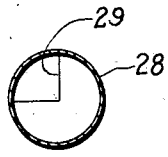


FIG. 4.

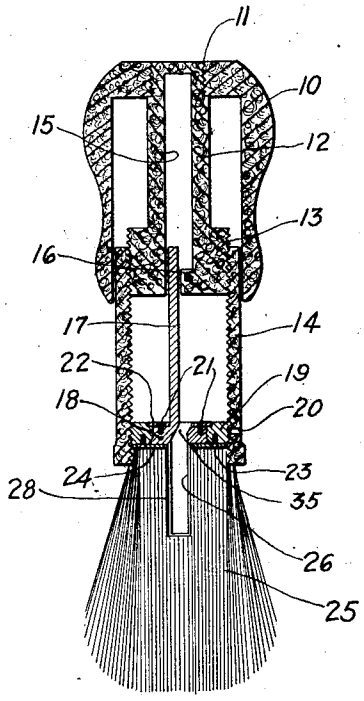


FIG. 1.

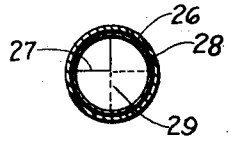


FIG. 5.

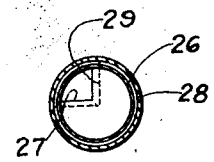


FIG. 6.

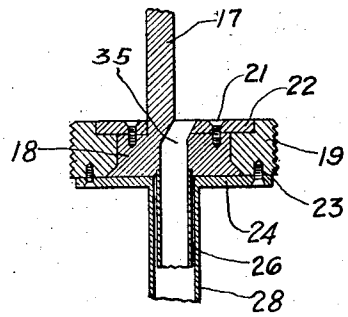


FIG. 2.

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Patented June 5, 1928. 1,672,376

UNITED STATES PATENT OFFICE.

CORNELIUS RAYMOND DE NARDIS, OF NEW YORK, AND JACK J. ALBIN, OF BROOKLYN, NEW YORK; SAID DE NARDIS ASSIGNOR TO SAID ALBIN.

SELF-FEEDING BRUSH.

Application filed July 9, 1927. Serial No. 204,589.

This invention relates to brushes and more particularly to such as are used when applying lather to the face preparatory to shaving.

While performing such operation, it is common to first wet the brush and then apply a quantity of cream to the brush and work up a lather on the face or else a wet brush is stirred around in a cup containing shaving soap and a quantity of water. Obviously, both of these methods take time and require the use of both hands, and are otherwise objectionable.

It is therefore the main obect of this invention to provide means combined with the brush whereby a quantity of cream is released intermediate the bristles of the brush eliminating the need of tubes of cream or cakes of soap.

It is a further aim to provide an indicator, enabling the user to ascertain the amount of cream remaining in the reservoir, so that it may be known when it requires refilling.

A still further characteristic is to provide a valve so that the feeding of the cream from the reservoir to the brush bristles may be controlled.

These and other minor objects, such as convenience, low cost and cleanliness, are attained by the novel construction, combination and arrangement of parts, hereinafter described and illustrated in the accompanying drawing, forming an important portion of this disclosure, and in which:—

Figure 1 is a longitudinal sectional view taken approximately through the center of a brush made in accordance with an embodiment of this invention.

Figure 2 is an enlarged, fragmentary, longitudinal sectional view, showing the valve in detail.

Figures 3 and 4 are transverse sectional views showing respectively the inner and outer tubular elements of the valve, drawn to an increased scale.

Figures 5 and 6 are similar views, respectively showing the valve in closed and open positions.

In the drawing, the numeral 10 generally designates a hard rubber handle in the closed outer end of which is screw-threaded a stem 11 of an elongated valve stem guide 12 having a plunger or enlarged head 13, at its inner end, screw-threaded in the wall of a cylindrical reservoir 14, the guide having an opening 15 extending nearly therethrough from the lower end and being partially closed by an inreaching flat faced projection 16 so that the entrance to the opening 15 is of half-round cross section.

Extending through the half-round opening is a similarly shaped stem 17 formed on a body 18 rotatable in a surrounding collar 19, the latter being prevented from rotating in the cylinder 14 by a pin 20.

Fixed to the body 18 by screws 21, level with the surface of the collar 19, is a washer 22, and secured by screws 23 to the underside of the body 19, is a disc 24, constituting a brush backing in which are set bristles 25.

The body 18 is provided with a passage 35 leading to an inner tube 26 fixed therein and having a segmental port opening 27 in its closed lower end and fixedly secured to the disc 24 is an outer tube 28 provided with a port opening 29 in its closed lower end similar to the opening 27, these elements constituting a ported disc valve operable by rotation of the handle 10.

Thus, in operation, the reservoir 14 is filled with any preferred shaving cream at which time the tubes are in position to close the openings 27 and 29, as shown in Figure 5, preventing cream from passing to the brush.

When it is desired to produce a lather for shaving, the handle 10 is given a half-turn, which action, through the engagement of the guide 12 and stem 17, rotates the inner tube 26, so that the port openings 27 and 29 will register, as shown in Figure 6.

Obviously, the rotation of the handle 10 causes the plunger 13 to move downwardly, forcing some of the cream through the passage 35 and tube 26 and out among the brush bristles by way of the port openings 27 and 29, and then by giving the handle another half-turn, the ports will resume their former closed position.

While we have described our invention in detail, it is to be understood that the foregoing is entirely descriptive and illustrative and should not be interpreted in a limiting sense, since embodiments may be constructed which will be slightly varied from the above but which will still be within the spirit and scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. In a shaving brush, a reservoir having interior screw threads, a collar fixed in the lower end thereof, a bristle carrying brush backing fixed to said collar, a ported disc carried by said collar and having a tubular extension projecting into the bristles, a second fixed tube telescopingly receiving said first tube, the tubes having ports adapted to register, a handle circumjacent the opposite end of said reservoir to operate said disc and valve, and a plunger positively operated by said handle operable in said reservoir.

2. In a shaving brush, a cylindrical reservoir, a ported disc rotatably mounted in one end of said reservoir telescopic valve elements communicating with said port, a plunger screw-threaded in said reservoir, an actuating stem fixed to said disc and slidable in said plunger, and a handle fixed to said plunger to cause it to positively rotate in said reservoir to expel the contents thereof.

3. A shaving brush comprising an interiorally threaded cylinder, a plunger engaged therein, a hollow guide on the plunger, a handle fixed on said guide, said handle telescopically engaging said cylinder, a collar fixed in the opposite end of said cylinder, an annular body rotatable in the collar, said body having a passage therethrough, a stem fixed in said body to slide in and be rotated by said guide, a bristle carrying brush backing fixed to said collar, a tube fixed axially on said backing to extend among the bristles, a disc at the inner end of said tubes having a port, a tube fixed in said annular body, registering with the passage therein, and rotatable within the first named tube, and a disc at the end of the second tube in close proximity to the first named disc and having a port registrable with the port in the first named disc.

4. A shaving brush comprising a cylindrical reservoir, an apertured plunger operable therein, a handle fixed to said plunger operable over the reservoir, a collar fixed in the opposite end of said reservoir, a tuft of bristles extending from the collar, an annulus rotatable in the collar, a stem on said annulus guided in said plunger, said apertured plunger providing means to transmit rotary motion to the stem, a tube fixed in said annulus open to the reservoir, a second tube carried by said collar surrounding the first tube, said tubes extending into the brush tuft, and ported discs fixed at the ends of the respective tubes to control the passage of the reservoir contents through said annulus.

5. A shaving brush, comprising a reservoir, a handled plunger threaded therein, a collar fixed in the end of said reservoir, an annulus rotatable in said collar, a tube fixed in said collar operative connections between said annulus and plunger, a bristle tuft carried by said collar, a port in said tube in open communication with said reservoir, and a corresponding port in said collar cooperating with the port on said tube to constitute a valve.

In witness whereof we have affixed our signatures.

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JACK J. ALBIN.