Aug. 23, 1932. R. E. SMITH 1,873,669

FOUNTAIN SHAVING BRUSH

Filed May 7, 1931

Fig. 1.

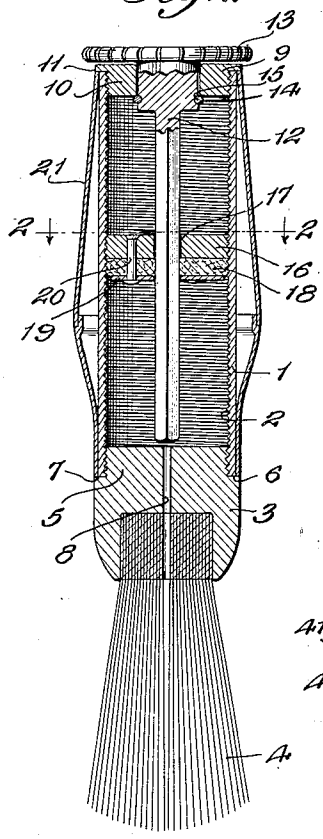


Fig. 3.

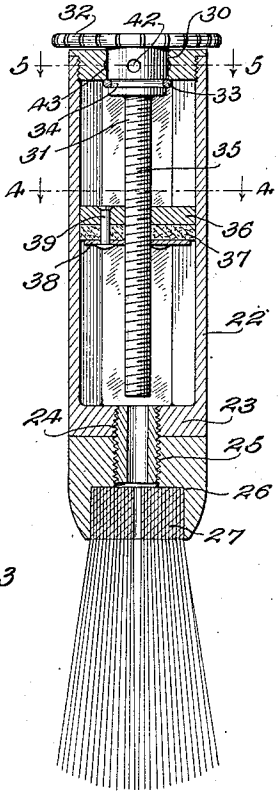
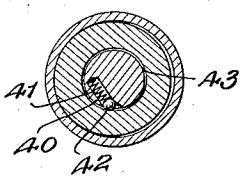


Fig. 5.



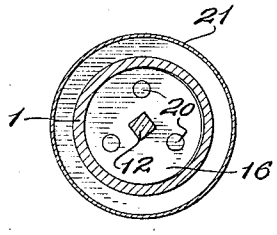


Fig. 2.

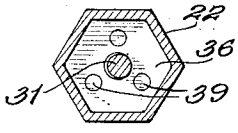
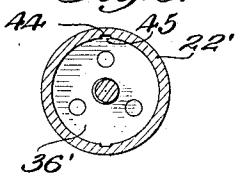


Fig. 4.

Fig. 6.



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UNITED STATES PATENT OFFICE

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FOUNTAIN SHAVING BRUSH

Application filed May 7, 1931. Serial No. 535,731.

The present invention relates to fountain brushes, more particularly, to shaving brushes provided with a hollow handle for receiving and supplying the cream or the like to the bristles of the brush.

The invention primarily contemplates to provide a device of the type mentioned having a hollow reservoir handle adapted to be filled with shaving cream or the like and embodying pressure applying means for forcing the shaving cream or the like through the bristles of the brush, whereby the lather may be sanitarily applied to the face.

The invention further aims to provide a brush of the character specified, wherein the reservoir handle is closed at one end by means of a cap carrying the operable mechanism for actuating the pressure applying means, and further embodying a clutch member between said cap and operable mechanism, whereby with actuation of the latter in one of its directions, the cap will be locked thereto for removal from the reservoir.

Another important object of the invention resides in the provision of a brush constituted of parts easily assembled, said parts being designed to be made in stock quantities, whereby the manufacturing cost will be greatly reduced.

It is also among the desired features of the invention to provide a brush having relatively few working parts in order to reduce to the utmost the possibilities of breakage which may result in the inoperativeness of the device.

An equally important feature of the invention consists in providing a fountain shaving brush may be given an artistic outer configuration thereby lending the device a distinctive appearance and thus rendering the device commercially desirable.

Other important objects and advantages of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by those skilled in the art, I have in the accompanying drawing and in the detailed description based thereupon set out a possible embodiment of the same.

In the drawing:

Figure 1 is a longitudinal section through my improved device,

Figure 2 is a cross section taken on line 2—2 of Figure 1,

Figure 3 is a longitudinal section of a slightly modified form of the invention,

Figure 4 is a cross section taken on line 4—4 of Figure 3,

Figure 5 is a cross section taken on line 5—5 of Figure 3, and

Figure 6 is a cross section illustrating a further modification of my improved device.

Having more particular reference to Figures 1 and 2 of the drawing, my improved device may be stated to comprise a cylindrical hollow handle body 1 constituting a reservoir for shaving cream or the like, formed of a tubing section of suitable material, and having a continuous screw thread 2 formed throughout the entire internal surface thereof.

Disposed at one extremity of the cylindrical body 1 is a brush head 3 provided with bristles 4 and formed with a reduced extension 5. The reduced extension 5 of said brush head 3 is adapted for introduction within said mentioned extremity of the handle body 1 having screw threaded engagement with the adjacent end portion of the continuous screw thread 2. The reduced extension 5 further defines shoulders 6 upon the brush head 3 coming into snug contact with the edge of the handle thereby tightly closing that end of the reservoir handle 1, thus preventing its contents from running out. The brush head 3 is provided with an aperture 8 extending therethrough and establishing communication between the bristles 4 of the brush and the interior of the handle body 1,

whereby shaving cream or the like may be supplied to the brush bristles in the manner more specifically described hereinafter.

Disposed upon the opposite extremity of the handle body 1, is a cap 9 formed with a reduced portion 10 engaged with the free end portion of the continuous internal screw thread 2. The marginal portion of the cap 9 snugly contacts with the adjacent edge of the handle for closing the same.

Extended through the cap 9 and rotatable thereon, is a shank 12 having a substantially flat circular knob 13, preferably larger in diameter than the diameter of the cap 9, whereby said knob may be readily gripped between the thumb and fingers for imparting a rotary motion to the shank 12. The inwardly extended portion of the shank 12 is formed with a plurality of sides and may, as represented in the drawing, advantageously be of substantially square cross sectional configuration. A locking ring 14 seated in a corresponding recess 15 formed upon a suitable portion of the shank 12 and bearing against the cap 9, may be provided in order to prevent the longitudinal displacement or accidental withdrawal of the shank 12 from its position upon the handle body 1.

Arranged within the handle body 1 and in engagement with the intermediate portion of the continuous internal screw thread 2 thereof, is a follower disk 16 having a central opening 17 corresponding in shape to the inner portion of the shank 12 and receiving the latter therethrough. The disk 16 is designed to apply pressure to the contents of the reservoir handle to force the same into the bristles 4 of the brush and to better perform this function, it is preferable to provide the working face of the disk 16 with a fibrous packing 18 retained in position by means of a washer 19 secured to the disk 16 by rivets 20 or other suitable fastening devices.

In order to give a distinctive appearance to the brush as a whole, an outer shell 21 may be applied about the outer periphery of the handle body 1, said shell being worked into any desired design or artistic configuration and may be constructed in any manner known in the art.

In Figure 3 of the drawing is shown a modified embodiment of the invention wherein the reservoir handle 22 is provided with a plurality of sides, and may, for instance, be given a hexagonal shape as illustrated herein. In this embodiment of the invention, one end of the handle 22 may be closed by means of an integral wall 23 which is provided with a central screw threaded opening 24 receiving one end of a nipple 25 secured to a brush head 26 and establishing communication between the interior of the handle 22 and the bristles 27 of the brush head 26.

The normal open end portion of the handle 22 is closed by means of a cap 28 having screw threaded engagement as at 29 with said end portion of the handle 22, and provided with a central circular opening 30.

Received through the opening 30 of the cap 28 and extending inwardly of the handle 22, is a shank 31 provided with a substantially flat knob 32 adapted to be gripped to impart a rotary motion to the shank 31. The shank 31 is locked in position by means of a ring 33 seated in a recess 34 formed in a convenient portion of the shank 31 and bearing against the adjacent portion of the cap 28.

The inwardly directed portion of the shank 31 is circumferentially reduced and screw threaded as indicated at 35, and engages a follower plate 36 supplied with a fibrous packing 37 retained thereon by means of a washer 38 and rivets or other known fastening devices 39.

That portion of the shank 31 received in the opening 30 of the cap 28, as more clearly shown in Figure 5 of the drawing, may be formed with a transverse slot 40 disposed eccentrically and at one side of the axis of the shank 31 and receiving a coiled spring 41 which acts upon a spherical member 42 to urge the same outwardly against the wall of the opening 30. The spherical member 42 is adapted to register with recesses 43 formed in adjacent portions of the wall of opening 30 in said cap 28 when the knob 32 and shank 31 are rotated in one of their directions, thus acting as a clutch to lock the cap to the shank for rotation therewith. In this connection, it will be understood that the screw threaded end portion 29 of the handle 22 is threaded in inverse relation to the screw thread 35 of the shank 31 in order that the normal operation of the follower plate 36 will not be affected by the actuation of the clutch member.

It will also be understood that this clutch member may be readily incorporated in the embodiment of the invention shown in Figure 1.

In Figure 6, I have shown the manner of constructing the device described in reference to Figure 3, when a handle having an internal cylindrical surface is used. In such a case, the inner wall of the handle 22′ is provided with opposed longitudinal slots 44 receiving and guiding the tongues 45 formed to project in diametrically opposed directions from the body of the follower disk 36′.

From the foregoing, it will be understood that I have provided an advantageous and convenient shaving brush capable of supplying a shaving cream or the like to the bristles thereof. When the brush is assembled in the manner described hereinbefore and the reservoir handle has been filled with shaving cream or the like, the latter may be forced into the bristles by turning the knob thus imparting a rotary motion to the shank and causing the follower plate or disk to apply

pressure to the contents of the reservoir handle.

By reason of the particular construction of the device, ready access may be had to refill the reservoir handle, and also, to repair or replace any of the parts which may become worn or deteriorated.

Further, because of the simplified construction of my improved device, it will be appreciated that the same obviates the possibilities of breakage of the operable parts as frequently occurs in known devices of this character.

Manifestly, the construction herein shown is capable of considerable modification and such modifications as come within the scope of my claims, I consider within the spirit of my invention.

I claim:

1. A device of the character described comprising a hollow handle body, the internal surface of said body being provided with a continuous screw thread formed throughout the entire length thereof, a brush head having an extension threaded externally for engagement with the end portion of the internal screw thread at one extremity of said handle, a cap having an extension threaded externally for engagement with the other end portion of the internal screw thread at the remaining extremity of said handle, a follower disk received within said body having its peripheral portion in screw threaded engagement with the intermediate portion of the continuous internal screw thread of said body, and means carried by said cap and operably associated with said disk to cause the latter to move on said continuous thread.

2. A device of the character described comprising a hollow handle body, a brush secured at one end of said body and having means establishing communication between the interior of said body and the bristles of said brush, a cap closing the other end of said body, pressure applying means carried by said cap and rotatably mounted thereon, and a clutch member between said pressure applying means and cap to lock the latter to said means when the same is moved in one of its directions.

3. A device of the character described comprising a fountain brush, a reservoir associated with said brush, a cap for closing said reservoir, pressure applying means extending through and movably carried by said cap, a flat knob secured to said pressure applying means and arranged at one side of said cap, a locking ring carried by said pressure applying means and engageable with the opposite side of said cap and locking means associated with the pressure applying means and engageable with said cap to lock the latter with said pressure applying means when moved in one direction.

4. A device of the character described comprising a fountain brush, a reservoir associated with said brush, a cap for closing said reservoir, a pressure applying member operable within said reservoir, means rotatably carried by said cap and engaging said member for actuating the same, and a clutch mechanism between said means and adjacent portions of the cap to lock the latter to said means when the same is rotated in one of its directions.

In witness whereof I have hereunto set my hand.

RAY E. SMITH.