

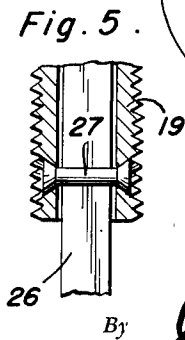
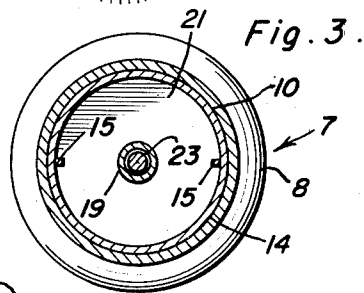
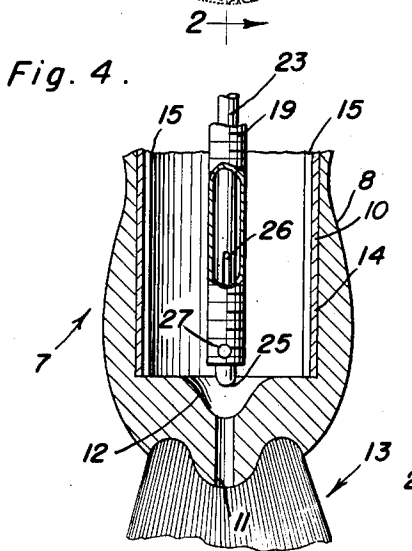
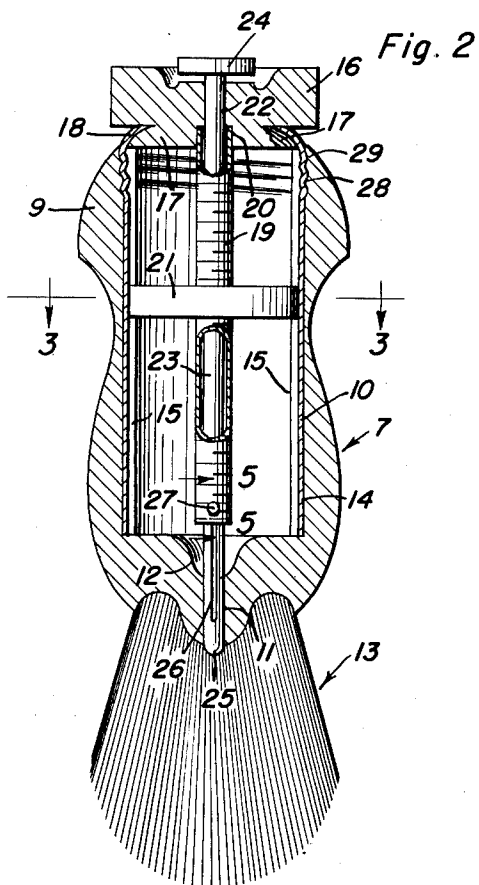
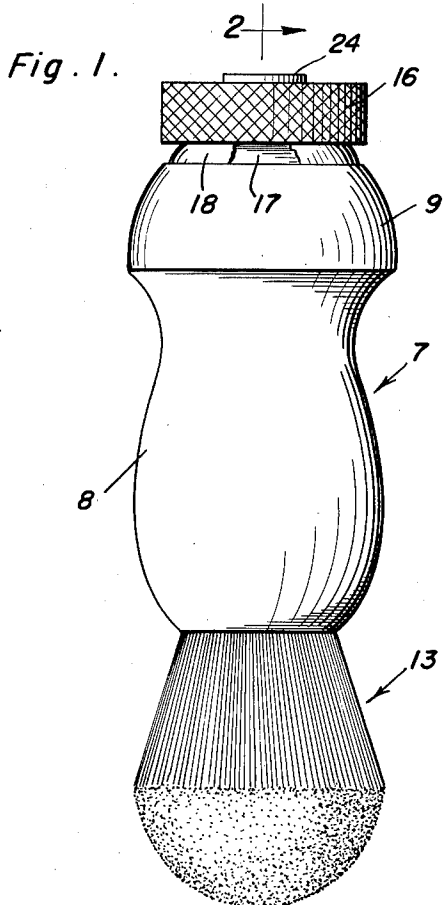
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SCREW ACTUATED PISTON DISPENSER

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SCREW ACTUATED PISTON DISPENSER

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2 Claims. (Cl. 222-260)

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The present invention relates to shaving brushes of the so-called fountain type wherein the shaving cream or soap, as the case may be, is stored in a container portion of the brush and is mechanically dispensed therefrom into the bristles of the brush in a well known but improved manner.

An object of the invention is to structurally, functionally and otherwise improve upon the overall construction and particularly the dispensing mechanism, whereby to provide what is believed to be a more efficient and superior brush construction.

More specifically, novelty is predicated upon a handle which is fashioned to provide a reservoir for the cream, there being provided therein a discharge orifice to feed the cream into contact with the bristles, and a slide rod being provided, one end of the rod fitting into the orifice to function as a valve and the other end of the rod being provided with a convenient hand-grip to facilitate opening and closing the valve.

In addition to the above it is an objective, structurally speaking, to line the cream chamber of the handle with a cylinder which functions to accommodate the cream expressing plunger and houses the feed screw for said plunger, said feed screw being operatively connected with a hand knob and said knob being fashioned to provide fluid-tight operating connection with an adjacent end portion of the cylindrical liner.

Other and more explicit features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a view in elevation, with a portion broken away, showing a fountain or dispensing type shaving brush constructed in accordance with the principles of this invention.

Figure 2 is a longitudinal sectional view, with parts in elevation, taken approximately on the plane of the line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a horizontal section on the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a fragmentary view in section and elevation based on Figure 2 and showing the valve in open position.

Figure 5 is an exaggerated fragmentary sec-

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tional view on the plane of the line 5—5 of Figure 2, looking in the direction of the arrows.

Referring to the drawings by distinguishing reference numerals and accompanying lead lines, the handle, as a unit, is denoted by the numeral 7 and is of appropriate dimensions, shape and material. It is here shown with a portion of appropriate external bulbous-like form as at 8 for convenient grasping by the user's hand. The numeral 9 denotes an appropriate shoulder. Since the handle is essentially hollow the hollowed portion 10 provides a socket, said socket being in communication with the discharge orifice or passage 11 by way of a recess or well 12, said passage opening into the bristles 13. There is a metal lining, which may be described as a cylinder, the same being denoted by the numeral 14 and fitting into the essential portion of the stated socket and this cooperates with the socket 10 and the rest of the brush to provide a reservoir or container for the shaving cream (not shown). The cylinder is provided with diametrically opposite internal guide ribs 15 as shown in Figures 2 and 3.

I next call attention to the plunger, functioning as the expressing means. This is characterized by a suitably shaped and marginally knurled knob 16, said knob having a reduced adapter 17 which defines an annular groove into which the constricted inbent end portion 18 of the cylinder is fitted to provide the desired swivel and fluid-tight connection between the knob and cylinder as shown in Figure 2.

The numeral 19 denotes a tubular externally screw threaded feed screw having its upper end (Fig. 2) embedded and anchored as at 20 in the central portion of the turnable knob. A disk-like cream expressing plunger or disk 21 is threaded on the feed screw and has diametrically opposite notches slidably keyed on the keying ribs 15. Thus, as the feed screw is turned through the motion of the knob, the plunger is worked back and forth in the reservoir or chamber in an obvious manner, the plunger sliding but not turning. The knob is provided with a passage, as at 22 and this serves to accommodate the contacting portion of a valve rod 23. The valve rod is slidable through the passage and the projecting end is provided with a finger grip, as at 24 which is operable independently of the knob 16. The valve rod has its valving or tip end (see Figure 4) 25 arranged to operate through the well and to project into the discharge orifice or passage 11. The adjacent portion of the valve rod has a slot 26 formed therein which slot serves

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to accommodate a keying and assembling rivet 27 (see Figure 5). The heads of the rivet are fitted in countersunk recesses in diametrically opposite portions of the hollow feed screw as shown in the drawings. Thus, the valve rod may turn with the knob and feed screw as a unit and may slide independently to permit the desired valving action. For example, in Figure 2 we see the valve projecting into and through the passage 11 and closing said passage. In Figure 4 we see the valve rod retracted and exposing the passage, allowing the feed screw and plunger to come into action to force cream from the reservoir into the brush bristles, in an obvious manner.

The hollow brush handle provides a metal lined socket for the cream to be dispensed and one end of the cylinder is fashioned into a closure having swivel fluid-tight connection with the coating adapter portion of the knob. Thus, the knob is freely rotatable in relation to the handle to obtain the desired feed screw and plunging or ejector results. The valve is an independent element and is primarily keyed in place to avoid loss rather than for the purpose of pinning it to the feed screw for rotation in unison with the latter.

It is necessary to separably connect the lining with the handle and therefore the lining adjacent the swivel connection is provided with screw threads at 28 and these are screwed into internal screw threads 29 provided in the socket portion of the handle. Thus, the two parts may be separated to permit the cylinder to be charged with cream and then assembled in the brush for suitable operational results.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

Having described the invention, what is claimed as new is:

1. A force-feed dispensing-type shaving brush of the class shown and described comprising a hollow handle closed at one end and provided in said end with a central discharge passage and an accompanying well in alignment with said pas-

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sage, an open-ended cylinder fitting telescopically and removably in the said handle, one open end of the cylinder bearing against and being closed by the closed end of said handle, the opposite end of said handle being open and internally screw-threaded, the corresponding end of said cylinder being screw-threaded and screwed into said handle, a hand turned knob closing and swivelly mounted in the last-named end of the cylinder, a force-feed screw rigidly attached to said knob, and a plunger slidably keyed in said cylinder and having screw-threaded operating connection with said feed screw.

2. A force-feed dispensing assembly for insertion in the socket of a hollow shaving brush handle comprising an open-ended cylinder, one end of the cylinder being constricted in diameter and providing a flange and the adjacent end portion being screw-threaded, a knob provided with a reduced adapter fitted rotatably into the cylinder, the peripheral edge portion of said adapter being grooved and the flange conforming in shape and size to said adapter and fitting into said groove and serving to swivelly join the knob to the cylinder, said knob being provided with a hollow feed screw mounted concentrically for rotation within the confines of said cylinder, said cylinder being provided exteriorly with keying ribs, a plunger threaded for operation on said feed screw and having its peripheral edge portion operatively and slidably connected with said keying ribs, a valve rod slidable and rotatable at one end in said knob and provided at said one end with a finger grip, the latter being located exteriorly of said knob said rod being slidably keyed in said feed screw.

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