Feb. 22, 1927. 1,618,731

A. F. ROUTH

DISPENSING DEVICE

Filed March 10, 1926 2 Sheets-Sheet 1

Fig. 1.

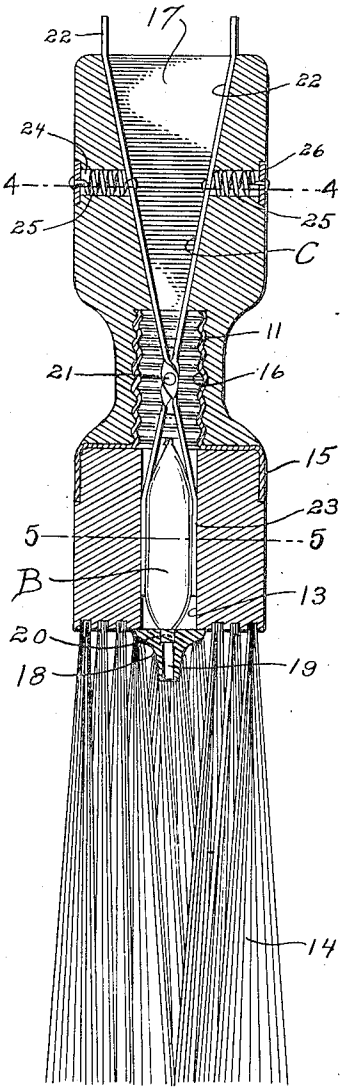


Fig. 2.

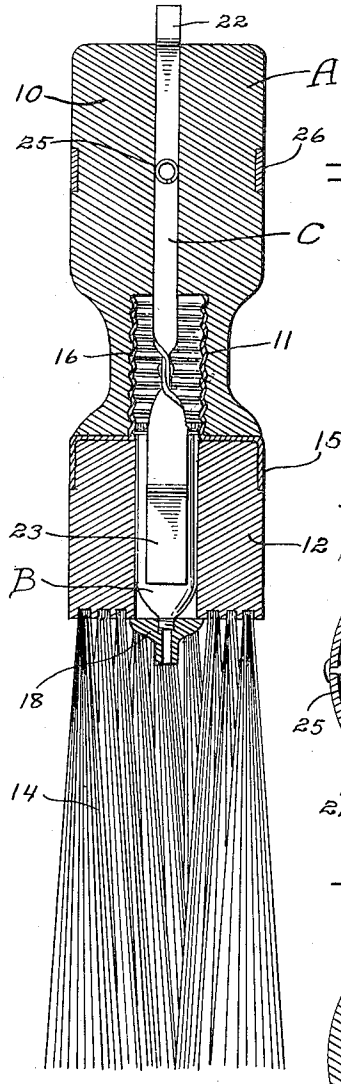


Fig. 3.

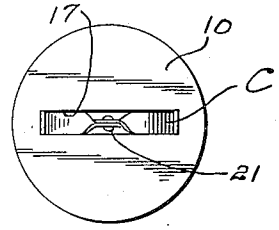


Fig. 4.

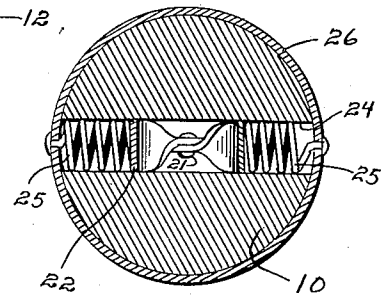
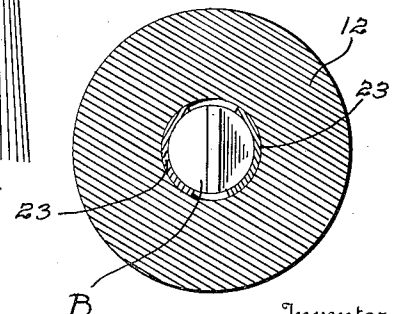


Fig. 5.



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Fig. 6.

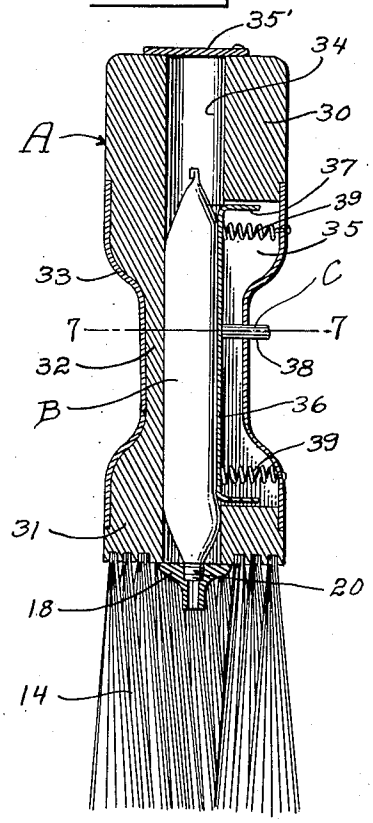


Fig. 8.

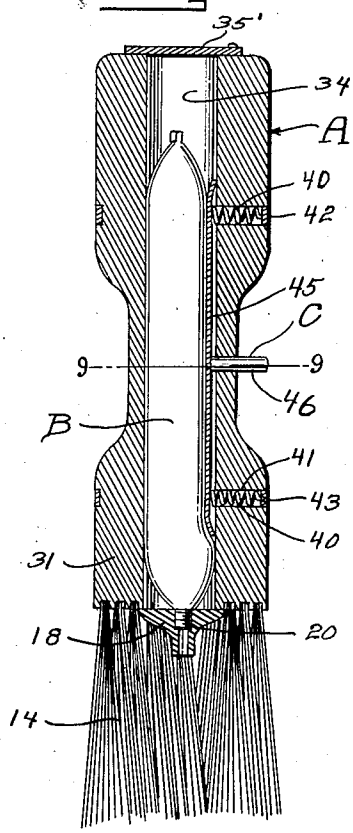


Fig. 7.

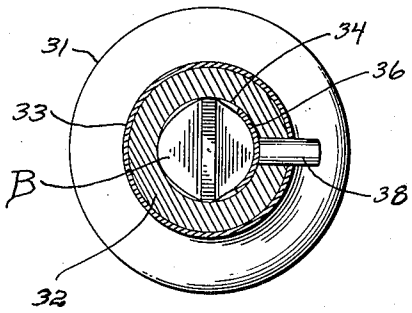
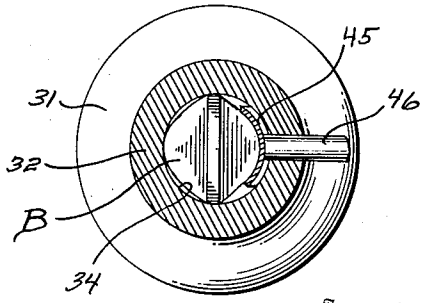


Fig. 9.



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UNITED STATES PATENT OFFICE.

ARTHUR F. ROUTH, OF NEW HAVEN, CONNECTICUT.

DISPENSING DEVICE.

Application filed March 10, 1926. Serial No. 93,709.

The present invention relates to improvements in brushes, and more specifically to improved shaving brushes and the primary object of the invention is to provide an improved shaving brush embodying means whereby a quantity of shaving paste or other semi-solid material may be contained within the handle of the brush, and a small quantity of the paste forced into the bristles of the brush whenever it is desired to use the same.

A further object of the invention resides in the novel ejecting means whereby any desired amount of the paste may be ejected from a collapsible tube, detachably arranged within the handle portion of the brush, directly upon the base portion of the bristles of the brush.

A still further object of the invention is to provide an improved fountain shaving brush which is extremely simple and durable in operation, and one which will be extremely efficient for use when traveling, in that the paste container is carried within the handle portion of the brush.

Other objects and advantages of the invention will be apparent during the course of the following detail description, taken in connection with the accompanying drawings, forming a part of this specification and in which drawings:

Figure 1 is a central longitudinal section through an improved shaving brush constructed in accordance with my invention.

Figure 2 is a central longitudinal section through the same, the brush having been given a one-quarter turn.

Figure 3 is a top plan view of the same.

Figure 4 is an enlarged section on line 4—4 of Figure 1.

Figure 5 is an enlarged transverse section on line 5—5 of Figure 1.

Figure 6 is a central longitudinal section through a slightly modified form of brush.

Figure 7 is an enlarged transverse section on line 7—7 of Figure 6.

Figure 8 is a central longitudinal section through a still further modified form of the invention.

Figure 9 is an enlarged transverse section on line 9—9 of Figure 8.

Referring to the drawings in detail, and wherein similar reference characters designate corresponding parts throughout the several views, the letter A designates generally the improved brush; B a collapsible tube for containing a paste or other suitable semi-solid material; and C the improved dispensing means for ejecting a quantity of paste from the tube B.

Referring particularly to Figures 1 to 5 inclusive, the brush embodies a handle portion 10 formed of any suitable material, and which handle portion is provided at its lower end with a screw threaded bore 11. A brush head 12 provided with an axially disposed bore 13, has extending from its lower end suitable bristles 14. Fitting over the upper end of the brush head 12 is a coupling fixture 15 having an upwardly extending threaded nipple 16 which extends upwardly in axial alignment with the bore 13 of the brush head. This threaded nipple 16 is adapted for threaded engagement within the threaded bore 11 of the handle portion 10 so as to permit of ready separation of the handle portion from the brush head when desiring to position a full tube within the pocket or bore 13 of the head 12. Extending upwardly in diverging relation from the bore 11, and opening at the upper or end face of the handle portion 10, is a substantially flat guideway 17. This guideway 17 as will be readily seen from Figures 1 and 2, extends in substantially axial alignment with the nipple 16 and bore 13.

Carried by the lower face of the brush head 12 from which the bristles 14 extend, is a nozzle 18 having an axially disposed bore 19 being threaded at its inner end for threaded reception of the usual threaded outlet 20 of the collapsible tube B. This nozzle 18 is preferably disposed with the bore 19 coaxial with the bore 13 of the brush head 12.

The ejecting or dispensing means C comprises a tong like member pivotally connected intermediate its ends as by a pivot pin 21, providing a pair of diverging handle portions 22 which extend upwardly through the guideway 17. Extending below the pivot pin 21 are two relatively long presser plates or jaws 23 of segmental shape in cross section for conforming substantially to the shape of the tube B at their contacting surfaces, and which plates extend into the bore 13 of the brush head 12 for engaging longitudinally, opposite sides of the collapsible tube B. The handle portions 22 which lie in surface contact with the outwardly diverging end walls of the guideway 17, have their outer terminals extending slightly past the end face of the handle portion 10.

Mounted in suitable and diametrically disposed apertures 24 provided in the handle portion 10 and opening at the diverging walls of the guideway 17, are contractile springs 25 having their inner ends connected to the respective handle portions 22, and having their outer ends anchored in a circumferentially extending band or ring 26. This band or ring 26 aside from forming an anchoring means for one end of the springs 25, also serves as a reinforcement for the handle portion 10. If desired, an expansion spring of any desired character may be disposed between the handle portions 22 for normally urging the same to a spread position against the diverging end walls of the guideway 17.

It will readily be seen that upon movement of the handle portions 22 toward one another, that the plates 23 will press upon the collapsible tube B for forcing a suitable amount of paste through the nozzle 18 and upon the bristles 14. Upon releasing of pressure upon the handle portions 22, the springs 25 will draw the handles into engagement with the diverging walls of the guideways, and thus move the plates 23 out of engagement with the tube B.

Referring now to the modification as illustrated in Figures 6 and 7, the handle portion 30 and brush head 31 are formed as a unitary structure and are connected by a reduced neck portion 32 about which a sleeve 33 extends with its end portions overlying a portion of the handle 30 and the brush head 31. An axially disposed bore 34 opening at the end face of the handle portion 30 is adapted to form a pocket for the insertion of the collapsible tube B which is threaded into the nozzle 18 as before described. A suitable plate or cap 35′ may be employed for closing the outer end of the bore 34. A recess 35 extending longitudinally of the bore 34 forms a guideway for a presser plate 36 having keys 37 formed at each end thereof for sliding movement in the recess 35. This compressor plate 36 which is of segmental shape in cross section for conforming substantially to the shape of the tube B at its contacting surface, carries a button 38 adapted for reciprocal sliding movement within the sleeve 33. Secured to each end of the plate 36 and extending through the recess 35, are contractile springs 39 each having their outer ends anchored in the sleeve 33. Thus it will be seen upon pressing inwardly upon the button 38 that the plate 36 will press against the tube B for forcing a suitable amount of paste through the nozzle 18.

With the form as shown in Figures 8 and 9, the contractile springs 40 extend through suitable openings 41 and have their outer ends anchored in annular rings or bands 42 and 43 encircling the handle portion 30 and brush head 31, respectively. With this form, the presser plate 45 which is also of segmental shape in cross section for conforming substantially to the shape of the tube B at its contacting surface, lies wholly within the bore with the button 46 slidably extending through the reduced intermediate portion connecting the handle portion and brush head.

In both of the forms as illustrated in Figures 6 to 9, inclusive, it will be seen that when the presser plates are in a retracted position, that the outer ends of their respective buttons lie within the circumferential planes of the handle portions and brush heads, thus eliminating possibility of the buttons being pressed inwardly when the brush is laid down.

From the foregoing description it will be seen that an improved shaving brush has been provided embodying features whereby collapsible tubes containing shaving creams or pastes may be carried within the handle portion of the brush with means for manually compressing the tube for forcing a desired amount of the paste upon the bristles of the brush in a manner to be readily worked into a lather.

Various minor changes may be made to the specific forms of invention herein shown and described without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. A dispensing device comprising a head portion provided with an axial bore, a nozzle closing the bore at the outer end of the head portion, a detachable handle portion provided with a terminally opening guideway communicating with the bore of said head portion, a collapsible tube arranged in the bore of the head portion and having its discharge opening communicating with the opening of said nozzle, and ejecting means for said tube comprising a pair of arms pivotally connected intermediate their ends for forming transversely arcuated presser plates extending into the bore of said head and engaging opposite sides of the tube, and handle portions extending thru the guideway of the handle portion beyond the outer end thereof.

2. A dispensing device comprising a handle portion having a screw threaded socket formed at one end thereof and a guideway extending from the socket and opening at the opposite end of the handle portion, a head portion provided with an axial bore, a coupling fixture carried by the head portion and embodying a threaded nipple arranged co-axial with the bore of said head for threaded connection within the socket of the handle portion, a collapsible tube arranged in the bore of said head and having its discharge opening directed toward the outer end of the head, presser plates arranged between the collapsible tube and the wall of the bore of said head, and operating means

for the presser plates extending thru the guideway of the handle portion for moving of the presser plates into contracting relation about the tube.

3. A dispensing device comprising a handle portion having a socket formed at its lower end and a guideway having its end walls extending upwardly in diverging relation from said socket and opening at the upper end of the handle portion, a head portion having a bore and an axially projecting nipple for fitting in the socket of said handle portion, a nozzle, a collapsible tube arranged in said bore and having its discharge opening communicating with the opening of the nozzle, and ejecting means for the tube comprising levers pivotally connected intermediate their ends and forming presser plates at the lower ends of the levers for engaging the collapsible tube and handle portions extending upwardly in diverging relation thru the guideway of the handle portion, and yieldable means connected with the handle portions of the levers for normally retaining the handle portions in engagement with the diverging end walls of the guideway and the presser plates out of contracting relation with the tube.

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