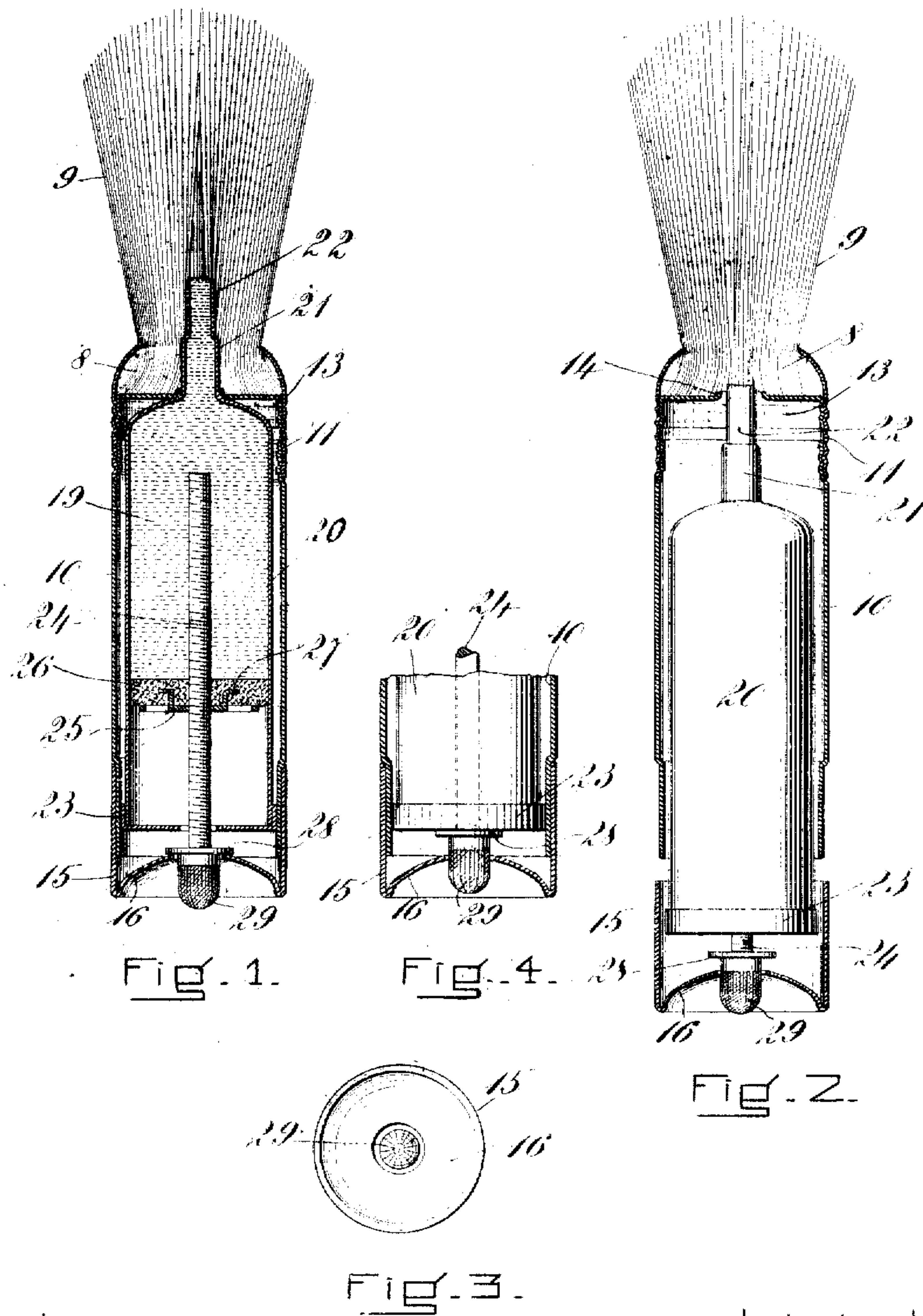


W. L. CLARK.
 FOUNTAIN BRUSH.
 APPLICATION FILED OCT. 14, 1907.

953,376.

Patented Mar. 29, 1910.



WITNESSES:
Joseph Barker
Mary A. O'Brien.

INVENTOR:
Walter L. Clark
 By *E. D. Chadwick*
 Attorney.

UNITED STATES PATENT OFFICE.

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

FOUNTAIN-BRUSH.

953,376.

Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed October 14, 1907. Serial No. 397,264.

To all whom it may concern:

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

My invention relates to fountain brush constructions of that type in which a reservoir or receptacle containing the material to be applied by the brush is inclosed within a chamber of the brush handle and is so arranged that the contents may be expelled by manipulation from the exterior of the combined parts; the main object of the invention being to simplify the construction and mode of use as compared with the construction and mode of use of prior devices of the same character.

My present improvements constitute a further step in advance along the line of invention developed in my prior applications for patents, where I show and claim all patentable matter shown but not claimed herein.

The invention relates particularly to fountain brushes in which the inclosed reservoir has a projecting part or feed key adapted to be moved in a prescribed manner to produce feed, and consists in certain features of construction and arrangement hereinafter set forth and claimed, being described herein as applied to a shaving brush.

One preferred form of the invention is shown in the annexed drawings, in which—

Figure 1 is a longitudinal section of the brush; Fig. 2 is a similar view showing how the removable parts are separated; Fig. 3 is a rear view of the handle; and Fig. 4 is a partial view similar to Fig. 1, but with the parts in a different relation.

The handle of the brush comprises a long shell 10, which is corrugated at its upper end in the form of a screw to be screwed into a correspondingly corrugated shell 11, the upper end of which is tapered to form a dovetail chamber for receiving and retaining the consolidated and correspondingly molded head 8 of the brush 9 which head is preferably a solid conglomerate of hair and vulcanized rubber. This consolidated head 8 is held in place by a cap or backing 13 which has threaded corrugations corresponding to those of shell 10. Cap 13 which may be permanently fixed by a drop of

solder, is slightly funnel-shaped and has a central opening 14 which is continued up through the consolidated head of the brush to establish communication between the loose parts of the brush and the inside of the handle chamber. The lower end of the handle chamber is closed by a closely fitting cap 15, the bottom 16 of which is concaved to form a recess into which the index finger and thumb of the user may be inserted for manipulating the feed screw described below.

The parts 10, 11 and 15 above described provide collectively a hollow body portion which is adapted to contain the reservoir in which the viscous or semi-fluid soap 19 is stored, and to be opened to permit the insertion or removal of the reservoir, either by withdrawing the cap 15 or by unscrewing the shell 10 from the shell 11. Said reservoir 20 has the general shape of a bottle which is preferably provided with an elongated neck 21 and reduced extension 22 leading through the consolidated head 8 of the brush directly to a point within the loose part of the brush as shown in Fig. 1. The sides of the cylindrical body and tubular extensions of this reservoir are all preferably made of a single sheet of aluminium. The bottom of this bottle is closed by a tightly fitting cap 23, the main purpose of which, is not to act as a closure but as a stop gage as will be seen presently. Through this cap passes loosely the rod 24 which is threaded through the metallic reinforcing plate 25 of a cork piston 26. Prongs 27 stamped out of the plate 25 into the cork 26 serve to connect the two. Rod or screw 24 is provided at its lower end with an integral collar 28 and a milled head 29. The screw 24 is made left handed so that by turning this milled head 29 to the right, in the natural direction of rotation used in winding a watch, the screw will travel outwardly, that is to say downwardly in Figs. 1 and 2 and this leaves a space between the collar 28 and the bottom of cap 23. During this rotation, of course, the piston 26 will remain stationary. If now the operator pushes on the milled head 29 to force it in from the positions of Fig. 1 to that of Fig. 4 the threaded rod and piston will be moved in together until the collar 28 comes into contact with the bottom of cap 23. By unscrewing the rod as before and again pushing in, the piston will again be advanced in the same manner. It is thus

seen that the amount through which the piston is advanced at any operation, will depend simply upon the distance through which the collar 28 has been screwed away from the cap 23. This distance may be measured by counting the revolutions imparted to the screw but in order to save this trouble and in order to use the contents of the receiver economically, it is better to provide means for exactly gaging the normal amount required, in an automatic manner, and this is done by so proportioning the parts that the screw 24 will have to be unscrewed until its collar 28 comes into contact with the bottom 16 of the cap 15. The gaging operation would not be accurate if the reservoir 20 happened to shift downwardly in the handle. To prevent this the reservoir 20 is made to fit tightly in place by frictional engagement of its enlarged neck 21 in opening 14. When all parts have been pushed in as far as they will go they will be in the relation shown in Fig. 4 with the head 29 of the screw nearly or just touching the plane determined by the lower edge of the cap 15. As this is the normal position of the parts the brush may be stood on end during the shaving operation. Any accidental displacement of the reservoir is corrected by the pressure exerted to force the screw head 29 inward to the limit of its inward motion, and this the operator will naturally do before unscrewing. If the gaging of the longitudinal distance traveled by collar 28 is done by counting revolutions of the screw the bottom 16 of cap 15 loses its gaging function and is of no use except to conceal the inner unfinished surfaces or to assist in preventing the reservoir 20 from falling out. If, therefore, the reservoir 20 be made tightly fitting or be surely held in place in any other manner, the bottom 16 may be dispensed with and the rim or cylindrical portion of the cap 15 is then preferably made as a permanent extension of the shell 10.

What I claim and desire to secure by Letters Patent is:—

1. In a fountain brush, the combination of a hollow body portion having bristles connected thereto, said body portion comprising a removable member, a reservoir removably contained within said hollow body portion and provided with a piston to expel its contents, and a piston-operating rod carried by and passing through the outer end of the reservoir and having a terminal portion adapted to be passed through a perforation in the outer end of the removable member of the hollow body portion, into position to be operated from the exterior of the combined parts.

2. In a fountain brush, the combination of a hollow body portion having bristles con-

nected thereto, said body portion comprising a removable member having a concave outer end provided with a perforation, a reservoir removably contained within said hollow body portion and provided with a piston to expel its contents, and a piston-operating rod carried by and passing through the outer end of the reservoir and through said perforation, and terminating in the recess provided by the concave outer end of said body portion.

3. In a fountain brush, the combination of a hollow body portion having bristles connected thereto and provided at its outer end with an externally-accessible recess, a reservoir removably contained within said hollow body portion and provided with a piston to expel its contents, and a screw-threaded rod passing through the piston, in threaded engagement therewith, and also passing freely through the outer end of the reservoir and terminating in said recess, in position to be rotated and reciprocated by manipulation from the exterior of the combined parts.

4. In a fountain brush, the combination of a hollow body portion having bristles connected thereto, said body portion comprising a removable member having a perforated outer end, a reservoir removably contained within said hollow body portion and provided with a piston to expel its contents, a screw-threaded rod passing through the piston, in threaded engagement therewith, and also passing freely through the outer end of the reservoir and through the perforation in the outer end of said body portion, into position to be rotated and reciprocated by manipulation from the exterior of the combined parts, and a stop carried by said rod between the outer end of the reservoir and the outer end of the body portion and adapted to cooperate therewith to limit the longitudinal movements of said rod.

5. In a fountain brush, the combination of a hollow body portion having bristles connected thereto, said body portion comprising a removable member having a concave outer end provided with a perforation, a reservoir removably contained within said hollow body portion and provided with a piston to expel its contents, and a screw-threaded rod passing through the piston, in threaded engagement therewith, and also passing freely through the outer end of the reservoir and through said perforation, and terminating in the recess provided by the concave outer end of said body portion.

In testimony whereof, I have hereunto subscribed my name,

WALTER L. CLARK.

Witnesses:

M. E. STODDART,
F. S. TUTTLE.