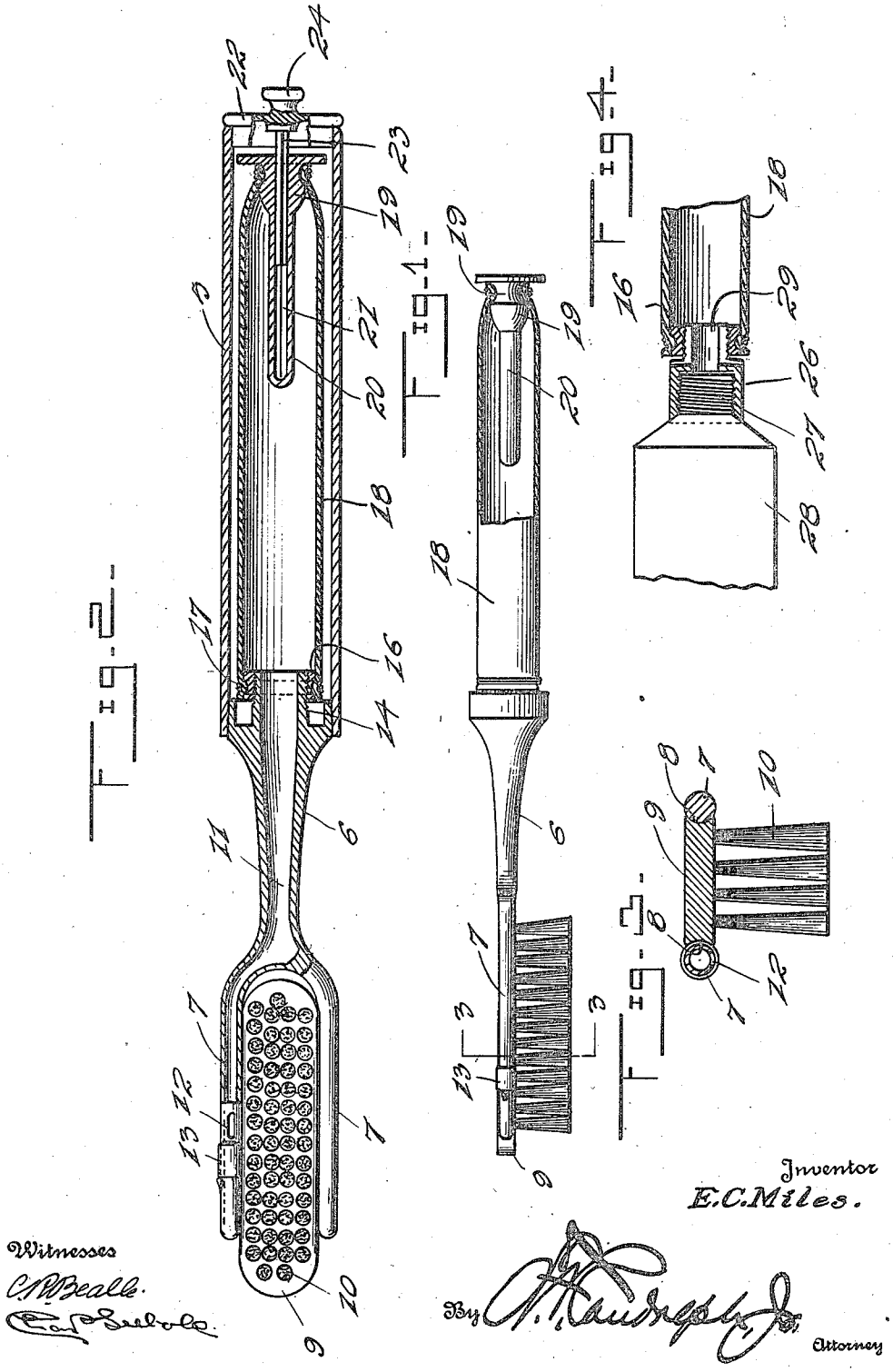
E. C. MILES.

FOUNTAIN TOOTH BRUSH.

APPLICATION FILED OCT. 8, 1915.

1,192,668. Patented July 25, 1916.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD C. MILES, OF OAKLAND, CALIFORNIA.

FOUNTAIN TOOTH-BRUSH.

1,192,668. Specification of Letters Patent. Patented July 25, 1916.

Application filed October 8, 1915. Serial No. 54,846.

To all whom it may concern:

Be it known that I, EDWARD C. MILES, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Fountain Tooth-Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fountain brushes, and has for its primary object to provide a device of this character embodying a handle in which is arranged a flexible tube constituting a reservoir for a liquid or paste dentifrice, and means associated with the tube for twisting the latter to eject the contents.

Another object is the provision of means for facilitating filling of the flexible tube with tooth paste.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts as will be hereinafter specifically described, claimed and illustrated in the accompanying drawing, in which:

Figure 1 represents a side elevation of the improved fountain brush, partly in section, Fig. 2 represents a plan view thereof, partly in section, Fig. 3 represents a transverse sectional view on the line 3—3 of Fig. 1, and Fig. 4 represents a fragmental sectional view of the tubular reservoir, illustrating the manner of filling the latter with tooth paste.

Referring to the drawing in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numeral 5 indicates a hollow handle, having one end open to receive the adjacent extremity of a brush holder 6, having the free end bifurcated to provide a pair of spring gripping arms 7, adapted to frictionally engage in grooves 8 formed in the longitudinal edges of a brush head 9, having the usual bristles 10. One of the gripping arms 7 is hollow and communicates with a longitudinal bore 11 formed in the shank or holder 6.

The under side of the hollow arm 7 is formed with a discharge opening 12, which is adapted to be closed by a sleeve 13 slidably mounted upon said arm. The inner extremity of the shank 6 is provided with an externally screwthreaded tubular extension 14 projecting into the hollow handle 5 and upon which is fitted an internally screwthreaded ring or ferrule 16, having a centrally located circumferential groove 17.

A tube 18 formed of rubber, or other flexible material, is engaged at one end over the ring 16, extends longitudinally within the handle 5 and is formed with an opening at its opposite end receiving the enlarged end 19 of a socket or tubular member 20 having the inner extremity closed and provided with a rectangular longitudinal bore 21.

The end of the body 5 opposite the handle 6 is closed by a cap 22, having an aperture therein rotatably receiving a rectangular shaft 23 carrying a knob or handle 24 at its outer end having frictional engagement with the cap 22 to retard the rotational movement of the shaft 23 and knob 24. The shaft 23 is slidably and non-rotatably fitted in the longitudinal bore 21 of the socket 20.

In the practical use of the fountain brush, the tube 18 is filled with a liquid dentifrice by removing the handle or shank 6 from the open end of the body 5 and subsequently disengaging the end of the tube 18 from the ring or ferrule 16. The liquid dentifrice is then poured into the tube, and the latter is placed in position upon the tubular extension 14 of the handle. If it is desired to fill the tube 18 with a tooth paste, a sleeve 26 is engaged over the reduced end 27 of the tube 28 containing the tooth paste and the reduced externally screwthreaded extension 29 of the sleeve 26 is fitted into the ring or ferrule 16, and then by pressing the end of the tube 28 the contents thereof are ejected into the flexible tube 18. When the tube 18 has been properly filled with the desired dentifrice the handle or knob 24 is rotated, thus twisting the adjacent extremity of the tube 18 and forcing the contents thereof through the passages in the tank or holder 6 and arm 7 and ejecting it through the discharge opening 12. It will be understood that the sliding engagement of the sleeve or socket 21 with the shaft 23 permits of the contraction of the tube 18 incident to twisting the latter.

What I claim is:

1. A fountain brush including a handle, a shank removably secured to said handle having a longitudinal bore or passage, a

pair of arms carried by said shank, one of said arms having a longitudinal opening thereon communicating with said longitudinal bore or passage and having a discharge opening therein, a brush removably engaged between said arms, and a sleeve slidably mounted on said arm for closing said discharge opening.

2. A fountain brush including a handle, a shank connected with said handle having a longitudinal opening therein, a flexible tube connected with said shank, and means removably fitted in said handle for twisting said tube longitudinally to eject the contents thereof.

3. A fountain brush including a hollow handle, a flexible dentifrice containing tube arranged in said handle, means for twisting one end of said tube to eject the contents of the latter, the last mentioned means including a slidable connection designed to permit contraction of the tube incident to twisting thereof.

4. A fountain brush including a hollow handle, a flexible dentifrice containing tube arranged in said handle, means for twisting said tube longitudinally to eject the contents thereof, the last-mentioned means including a slidable connection designed to permit contraction of the tube incident to twisting thereof.

5. A fountain brush including a hollow handle, a flexible dentifrice containing tube arranged in said handle, a cap rotatably mounted in said handle, and means associated with said cap for twisting said tube to eject the contents thereof.

6. A fountain brush including a hollow handle, a flexible dentifrice containing tube arranged in said handle, a cap rotatably mounted in the end of said handle, and means associated with said cap for twisting said tube to eject the contents of the latter, the last-mentioned means including a slidable connection designed to permit contraction of the tube incident to twisting thereof.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD C. MILES.

Witnesses:
J. T. PARR,
A. J. RUTHERFORD.