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R. R. BALL

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TOOTHBRUSH

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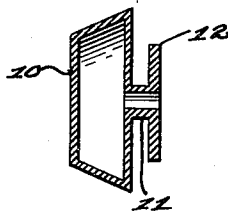
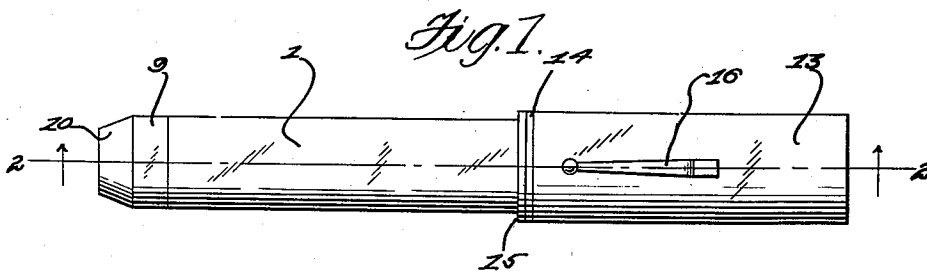
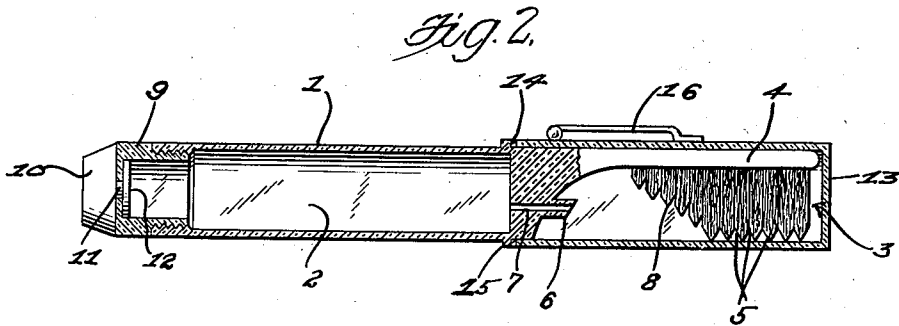


Fig. 3.

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TOOTHBRUSH

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1 Claim. (Cl. 15—136)

The present invention relates to new and useful improvements in fountain tooth brushes and has for its primary object to provide, in a manner as hereinafter set forth, a brush of this character embodying novel means whereby a liquid dentifrice may be expeditiously deposited on the bristles in a convenient, sanitary manner.

Another very important object of the invention is to provide a tooth brush of the aforementioned character, which, if desired, may be conveniently carried in the pocket.

Other objects of the invention are to provide a fountain tooth brush of the character described which will be comparatively simple in construction, strong, durable, compact, light in weight, attractive in appearance, and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a plan view of a fountain tooth brush constructed in accordance with the present invention.

Figure 2 is a view principally in vertical longitudinal section through the device, taken substantially on the line 2—2 of Figure 1.

Figure 3 is a detail view in vertical section through the rubber bulb.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a tubular handle 1 of suitable transparent material, said handle providing a chamber 2 for the reception of a liquid dentifrice. On one end of the tubular handle 1 is a head which is designated generally by the reference numeral 3. The head 3 includes a back 4 which is integral with the handle 1. Mounted on the back 4 are bristles 5.

Projecting from the forward end of the handle 1, beneath the rear portion of the back 4, is an integral dropping nozzle 6. The nozzle 6 communicates with the chamber 2 for receiving the liquid dentifrice therefrom through a duct 7. The rear end portion of the mass of bristles 5 is inclined, as at 8, toward the back 4.

The rear end portion of the tubular handle 1 is internally threaded for the reception of a hollow removable screw plug 9. Mounted on the closed outer end of the plug 9 is a substantially frusto-conical collapsible rubber bulb 10. The collapsible bulb 10 comprises an integral tubular stem 11 which passes through an aperture pro-

vided therefor in the closed outer end of the plug 9. The forward or inner end of the stem 11 is provided with an integral flange 12 which is engaged with the end wall of the plug 9 for retaining the bulb 10 in position thereon.

Removably mounted on the forward end portion of the handle 1 is a cap 13 which encloses the head 3. On the open end of the cap 13 is a gasket 14 of suitable material. A bead 15 is provided on the forward portion of the handle 1 for engagement by the cap 13. The reference numeral 16 designates a pocket clip on the cap 13.

In use, the plug 9 is removed to permit a liquid dentifrice to be placed in the chamber 2 of the tubular handle 1. Of course, when the chamber 2 has been filled the plug 9 is replaced. The cap 13 is now removed and the tubular handle 1 held in a substantially vertical position with the head 3 lowermost. Then, by collapsing the rubber bulb 10 with the thumb of the hand in which the device is being held, the liquid dentifrice will be ejected by air pressure from the chamber 2. The dentifrice passes through the duct 7 and drops from the nozzle 6 onto the inclined rear portion 8 of the mass of bristles 5. The cap 13 may then be slipped on the rear end portion of the tubular handle 1 over the collapsible bulb 10 and the plug 9 and the brush is ready for use.

It is believed that the many advantages of a fountain tooth brush constructed in accordance with the present invention will be readily understood, and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

A fountain tooth brush comprising a tubular handle for the reception of a liquid dentifrice, said handle having a discharge duct in one end thereof, a head including bristles on said one end of the handle for receiving the dentifrice therefrom, a removable hollow closure plug threadedly mounted in the other end portion of the handle, a substantially frusto-conical collapsible bulb mounted on the plug and including a tubular stem extending into said plug, and an integral retaining flange on the inner end of the stem engaged with the end wall of the hollow plug for securing the bulb in position thereon, the periphery of said flange engaging the wall of the plug, said bulb constituting means for ejecting the dentifrice from the tubular handle.

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