J. T. COOK.

FOUNTAIN TOOTHBRUSH.

APPLICATION FILED FEB. 9, 1918.

1,358,523.

Patented Nov. 9, 1920.

Fig. 1.

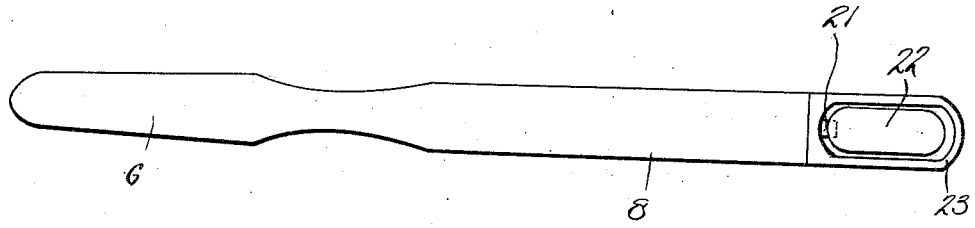


Fig. 2.

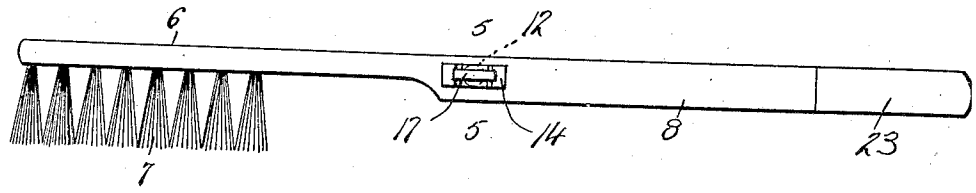


Fig. 3.

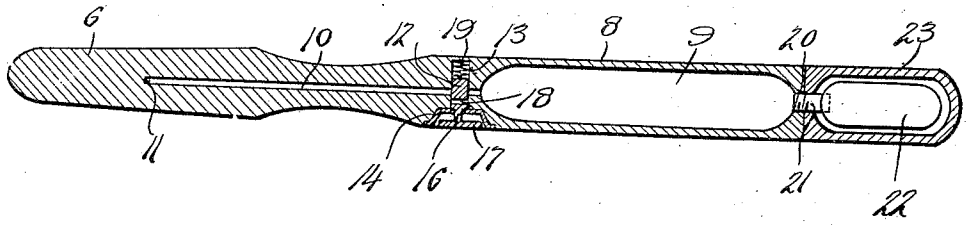


Fig. 4.

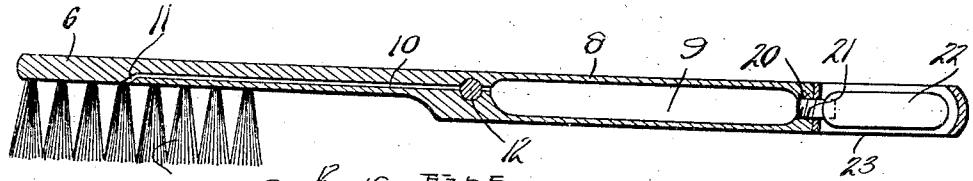
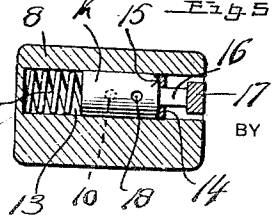


Fig. 5.



WITNESSES

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JASON THEODORE COOK, OF ASTORIA, OREGON.

FOUNTAIN-TOOTHBRUSH.

1,358,523. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed February 9, 1918. Serial No. 216,273.

To all whom it may concern:

Be it known that I, JASON T. COOK, a citizen of the United States, residing at Astoria, in the county of Clatsop and State of Oregon, have invented certain new and useful Improvements in Fountain-Toothbrushes, of which the following is a specification.

My invention relates to a fountain brush and the improvements particularly apply to a tooth brush.

The invention aims to provide a novel, improved and simplified construction of brush of this nature and particularly one which has a means to force the cleaning material to the brush head; one having an insert opening for said material adapted to receive a nozzle of an air bulb to close the opening and to fasten the bulb and its frame to the brush; and having an improved form of valve means to control the escape of the material to the brush head; one having a handle provided with a chamber to contain the material and with a valve and air bulb in such relation therewith that they may be operated by the same hand which grasps the handle, and a brush of this nature which may be used as an ordinary tooth brush at desired times regardless of the provision of the fountain feature.

With the above and additional objects, such as will hereinafter appear, in view, the invention has been embodied in one preferred form as hereinafter described in connection with accompanying drawings illustrating the same and wherein:

Figure 1 is a top or plan view of a brush embodying my improvements;

Fig. 2 is a side elevation of the brush;

Fig. 3 is a horizontal sectional view through the brush;

Fig. 4 is a vertical sectional view through the improved brush, and

Fig. 5 is an enlarged detail cross sectional view taken on the line 5—5 of Fig. 2.

Referring specifically to the drawings, wherein like reference characters designate like or corresponding parts, a brush is shown having a head 6 from which bristles 7 extend and which head is a continuation of a handle 8. This type of brush is to be taken as conventional since the improvements apply to brushes generally although they are particularly adapted for tooth brushes of which the brush 6—8 is one type. Handle 8 is hollow so as to have a chamber 9 adapted to contain a suitable supply of polishing or cleaning material for the teeth, either in a liquid or powdered form. From the chamber 9 an outlet way 10 extends, being provided partly in the handle and partly in the head and terminating in an opening 11 in the head centrally of the bristles 7.

A suitable valve 12 is provided to control the outlet or escape of material from the chamber 9. A chamber 13 is provided transversely of the handle 8 and said valve 12 is slidably mounted therein. A fastening plate 14 is countersunk in and fastened to the handle 8 in any suitable way or manner. Valve 12 is slidable transversely of the brush and longitudinally of the chamber 13 and has an abutment wall or shoulder at 15 adapted to engage the inner face of the plate 14 to prevent displacement of the valve 13. From the wall 15, a reduced shank 16 extends, passing through the plate 14 and beyond it having a head 17. The valve and plate are so constructed that they may be connected with the shank 16 extending through an opening in the plate. A way 18 extends completely through the valve 12 and is normally held out of alinement with the way 10 by means of an expansion spring 19 within the chamber 13 bearing against one wall at the chamber and against the inner end of the valve. This spring normally maintains shoulder 15 in contact with the plate 12 and the head 17 spaced from the plate 14. Thus the head may be pressed inwardly against the tension of spring 19 so as to aline the ways 18 and 10.

From the construction described, it will be realized that when a quantity of the cleaning or polishing material is desired on the bristles or tufts 7, the operator with the same hand which grasps handle 8, pushes the head 17 inwardly alining the ways 10 and 18 so that the material may pass therethrough and escape at the opening 11 onto the bristles or tufts. After the desired quantity has escaped, the finger engaging head 17 is removed whereupon the spring 19 will restore the valve to normal position with the ways 10 and 18 disalined. It will be noted, that normally the way 10 is closed and thus the tooth brush may be used in the ordinary manner and liquid matter cannot flow from the brush head through the way 10 into the chamber 9. Thus if desired the tooth brush may be used merely as an ordinary tooth brush

usually but when the owner desires to travel or is away from home, he may carry the tooth brush containing a suitable quantity of the cleaning or polishing material in the chamber 9.

Chamber 9 is filled with the cleaning or polishing material through the openings at one end of the handle. This opening is designated 20 and is normally closed by a nipple 21 which engages screw threads projecting into the opening 20. Nipple 21 leads from a compressible air bulb 22. This bulb 22 is preferably surrounded by a guard frame 23 through which the nipple 21 extends and to which it is preferably screw threaded or otherwise rigidly connected.

When the ways 10 and 18 are in alinement, bulb 12 may be compressed so as to expel air through the nozzle or nipple 21 into the chamber 9 to force the cleaning or polishing material therefrom through the ways 10 and 18 to the brush head. It is to be particularly noted that the bulb 22 and the valve 12 are so disposed that the same hand of the operator which grasps the handle 8 may also operate the valve and the bulb.

Since merely the preferred embodiment of the invention has been illustrated and described, it is to be understood that changes in the details of construction may be resorted to without departing from the spirit and scope thereof as defined by appended claim.

I claim:

A fountain brush consisting of a head equipped with a handle provided with a longitudinal cavity communicating with the base of the tufts of the head, a portion of the handle remote from that part in which the cavity is formed, being removable and open from top to bottom, a compressible bulb mounted in the opening of said detachable head and housed completely within the plane of the latter, said bulb communicating with the cavity in the handle to eject the contents of the latter into the tufts of the brush.

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

JASON THEODORE COOK.

Witnesses:

JAS. M. WAGGENER,

GEO. T. GRALKE.