

Oct. 20, 1942.

A. C. CASTILLO

2,299,564

TOOTHBRUSH

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Fig. 1.

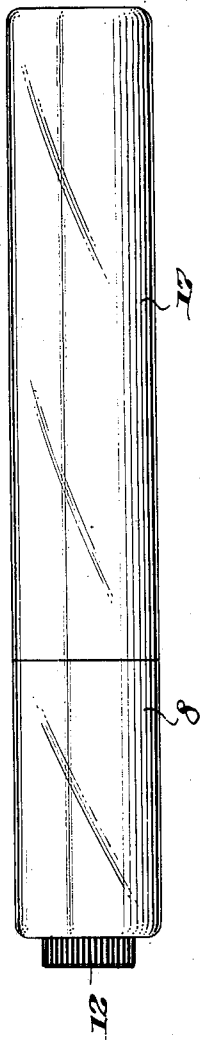


Fig. 3.

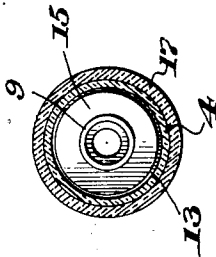
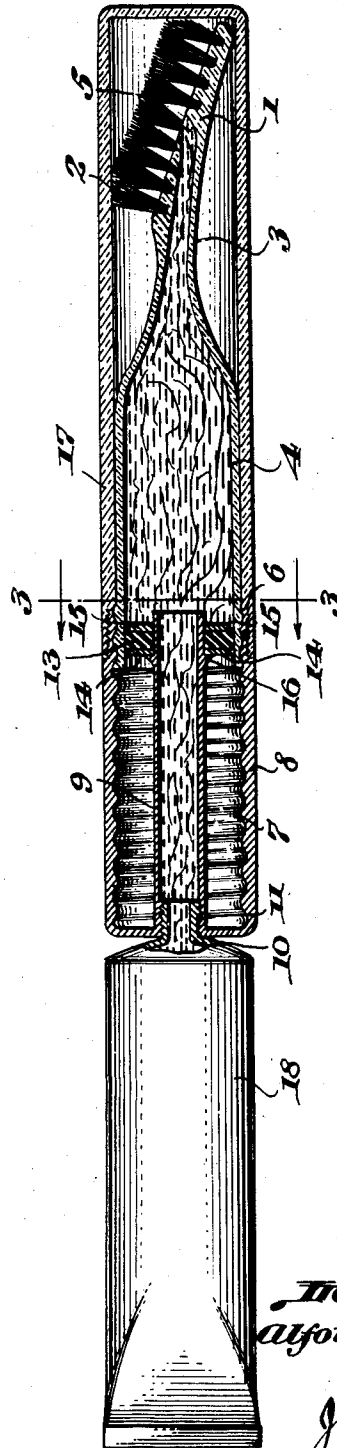


Fig. 2.

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TOOTHBRUSH

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Application October 28, 1941, Serial No. 416,872

1 Claim. (Cl. 15—137)

My invention relates to new and useful improvements in tooth brushes, and more particularly to a tooth brush of the fountain type, the primary object of the invention being to provide a fountain tooth brush with effective means for propelling tooth paste to the bristles of the brush.

A further object of the invention resides in providing a brush of this type so constructed that same may be readily and quickly filled or refilled by engaging the end of a standard or ordinary tube of tooth paste to the end of this brush and squeezing the paste thereinto.

A still further object of the invention resides in providing a brush of the type described which is sanitary and leakproof.

A still further object resides in providing a brush of the class described which is simple and durable in construction, inexpensive to manufacture and one which will prove very efficient and useful in operation.

With these and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and drawing.

In the accompanying drawing, forming a part of this application,

Figure 1 is an elevation of a brush constructed in accordance with my invention, assembled and ready for sale or use;

Figure 2 is a vertical section therethrough with a tube of tooth paste connected with the one end thereof illustrating the filling or refilling of the same; and

Figure 3 is a vertical section therethrough as seen on the line 3—3 of Figure 2.

In describing the invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which 1 designates the head of a tooth brush to which bristles 2 are connected or mounted in any desired manner. The neck portion 3 of this brush is hollow and tapers out terminating in a cylindrical body 4 which forms a cylindrical paste chamber or reservoir. The hollow portion of the neck at its outer end terminates in an opening 5 in the upper face of the head 1 in the midst of the bristles 2, so that the paste in the chamber may be fed readily to said bristles.

The cylindrical body 4 at its lowermost end is externally threaded as shown at 6, whereby the same may be engaged with the inner threaded wall 7 of the cylindrical base or supporting mem-

ber 8. This cylindrical base member 8 is formed with an inner central longitudinal tube 9 which terminates in the lower end of the cylindrical member at which point there is an opening 10. This opening and the inner wall of the tube 9 is threaded as shown at 11, whereby a knurled-headed cap screw 12 may be engaged therewith to close the opening.

Mounted externally of the tube 9 adjacent its upper or outermost end is a hard rubber medially thick washer 13. This washer snugly fits the tube and on each side of said rubber washer are the metal discs or washers 14 and 15 which are swaged, sweated or otherwise similarly firmly secured on said tube. An abutment 16 is formed externally of the tube 9 against which the washer 14 may be seated. These washers 13, 14, and 15, mounted on the end of the tube 9, form substantially a piston and said washer 13 is adapted to fit snugly within the inner walls of the cylindrical chamber 4 and operate to propel the paste in said chamber forwardly toward the bristles of the brush.

The cylindrical base member 8, which forms substantially a portion of the handle of the brush when the latter is in use, has its outer end externally threaded to engage the internally threaded end of a cylindrical cover 17, which may be applied when the brush is not in use.

When it is desired to fill or refill the brush, it is only necessary to unscrew and remove the cap screw 12 from the end of the base member 8, whereupon the threaded neck of the standard tube 18 of paste may be engaged with the threaded opening 10 in the end of the member 8, as shown in Figure 2 of the drawing. Thereupon the paste from the tube 18 may be squeezed through the tube 9 and into the chamber 4 of my improved brush. When the brush is filled, the tube 18 may be disengaged and the cap screw 12 again applied. Then, when it is desired to propel the paste forwardly in the chamber 4 toward the exit opening and the bristles, it is only necessary to turn the body 4 and as the same is drawn inwardly into the base member 8, the plunger or piston of the latter will force the paste upwardly or outwardly, as the case may be, toward the bristles for use in brushing the teeth. When the brush is not in use, the cover 17 is, of course, applied, for sanitary purposes.

I have illustrated by lining a brush head and body therefor constructed of plastic material and, likewise, I have shown the cover 17 as being formed of plastic material, while the base member has been shown as being made of metal. It

will be understood, of course, that all of the parts may be made of metal or all of them made of plastic, as desired, or some parts made of metal and some of plastic, as the particular material of which the elements are constructed does not form an essential part of the invention.

From the foregoing description, the method of constructing and of applying to use my invention will be readily understood and it will be seen that I have provided a comparatively simple, inexpensive and efficient means for carrying out the various objects of the invention. While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to, without departing from the spirit or sacrificing any of the principles of the invention.

What I claim is:

A tooth brush of the class described, comprising a head having bristles, a cylindrical hollow body connected with said head and forming a material reservoir having communication with said bristles and having external threads, a cylindrical hollow base member internally threaded and having threaded engagement with the exterior of the aforesaid body, a hollow stationary feeding tube extending from the end of said base member to a point within the body to supply tooth cleansing material to the latter, a removable closure for the one end of said tube, and means carried on the opposite end of said tube snugly fitting the inner walls of said body adapted to propel the material therewithin toward the bristles as said body is rotated with respect to the base member.

ALFONZO C. CASTILLO.