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2,059,914

TOOTH BRUSH

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Fig. 1

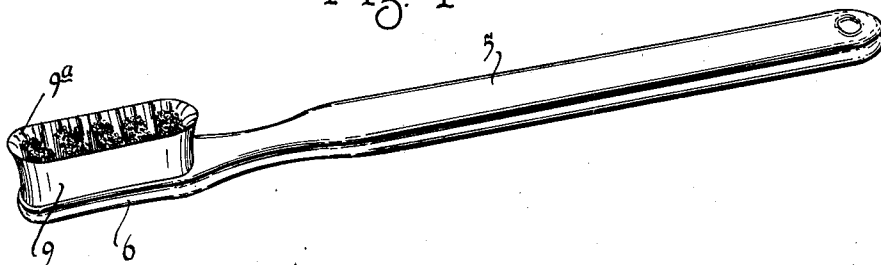


Fig. 2

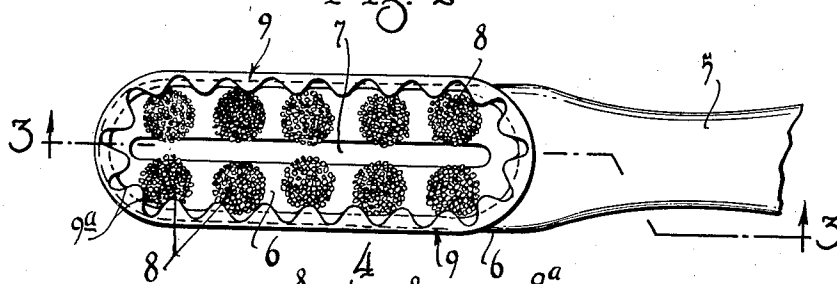


Fig. 3

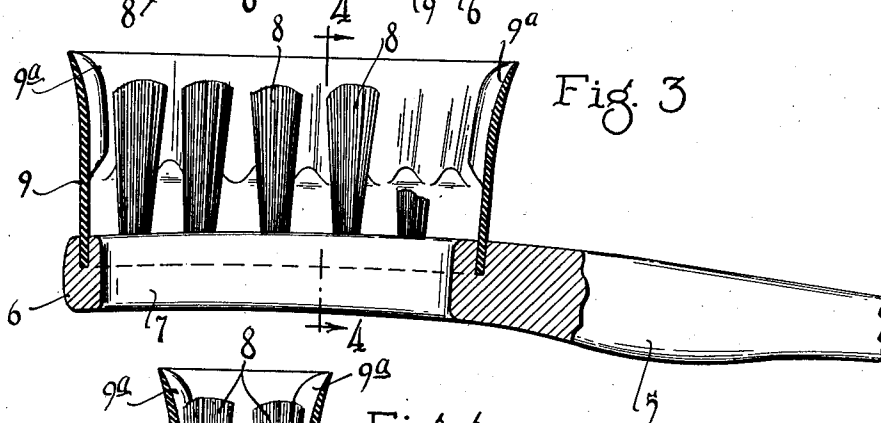
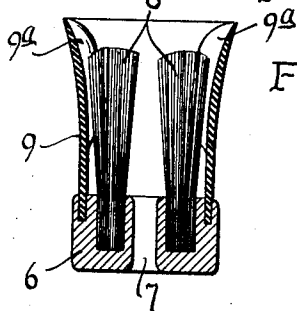


Fig. 4



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## UNITED STATES PATENT OFFICE

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## TOOTH BRUSH

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3 Claims. (Cl. 15-110)

My invention provides a toothbrush of novel and improved construction which comprises, in addition to brush bristles, a pliable and resilient wiper flange that surrounds the bristles and is related thereto in a novel manner, whereby the utility of the toothbrush is increased in certain particulars hereinafter noted.

The improved toothbrush is illustrated in the accompanying drawing wherein like characters indicate like parts throughout the several views.

Referring to the drawing:

Fig. 1 is a perspective showing the complete toothbrush;

Fig. 2 is a plan view with parts broken away showing the brush on an enlarged scale looking at the bristle-equipped face or bottom thereof;

Fig. 3 is a longitudinal section taken on the line 3-3 of Fig. 2; and

Fig. 4 is a transverse section taken on the line 4-4 of Fig. 3.

The brush is provided with a handle 5 preferably formed integral with a brush head 6, said parts being of any of the usual construction such as bone, celluloid or the like. The brush back 6 is preferably formed with a central longitudinal slot 7, on each side of which is placed one row of bristle tufts 8 suitably set in the back 6. A pliable resilient wiper flange 9 is preferably formed from a thin sheet of rubber that completely surrounds the bristles and at its upper edge is suitably set into or secured to the back 6. To increase the efficiency of the free edge of this rubber flange, its free edge is preferably corrugated, as shown at 9a, and moreover, the said flange is preferably outwardly beveled slightly toward its free outer edge. It is important to note that the corrugations 9a extend outwardly from the medial portion of the flange 9, thereby leaving the lower portion of uniform thickness. The greatest flexing takes place just below the corrugations, thereby allowing the entire corrugations, instead of just the upper portion thereof, to be spread open for massaging action. Also it is important to note that the free edge of this flange projects considerably beyond the outer edges of the bristles so that the edge of the flange will come into contact with the gums in advance of engagement of the bristles with the teeth. Also, it is important to note that the flange forms an elongated cup or receptacle adapted to receive powder or paste and which extends longitudinally of the handle 5. In addition to the ordinary utility of a toothbrush, this brush affords a pliable flange for engagement with the

gums and which, under proper manipulation with the brush, will not only clean the teeth and gums, but will massage the gums. It is a well known fact that such massaging action of the gums increases the circulation and tends to produce a healthy condition of the gums.

The elongated form of the endless wiper flange and the spacing of the bristles in parallel longitudinal rows within the flange affords a device that takes the general form of a standard toothbrush and which is, therefore, especially adapted to be manipulated by a handle projected longitudinally of the major axis of the flange. The container afforded by the flange especially adapts the device for holding tooth powder, the handling of which usually is wasteful and inconvenient. The slots 7 permit circulation of water through the brush to completely clean the same after it has been used.

From what has been said, it will be understood that the brush described is capable of modifications within the scope of the invention herein disclosed and claimed. It will also be understood that the flange 9 may be secured to the brush back by any well known or any other suitable means and that the bristle tufts may likewise be secured in the brush back in any suitable way.

It will be noted that the toothbrush described involves the following features, to wit: the bristles are arranged in rows that extend longitudinally of the handle and back; the soft rubber wiper flange, which completely surrounds the bristles, has a constant thickness throughout its major body portion, but at its outer portion flares outwardly and terminates in a sharp edge or edge of reduced thickness so as to give increased flexibility; the corrugations that are bulged both inwardly and outwardly extend to the edge but terminate short of the back leaving that portion of the flange that joins the back and extends some distance outward therefrom free from corrugations and give that portion increased flexibility.

What I claim is:

1. A tooth brush comprising a back portion having a handle projecting from one end thereof, bristles arranged in rows extending longitudinally of said back and projecting perpendicular thereto, an endless oblong soft rubber wiper flange imbedded in said back, at one edge, and completely surrounding said bristles in close association therewith, said flange adjacent said back being of approximately constant thickness, said flange having internal corrugations that

extent parallel to said bristles and project beyond the outer portions of said bristles, and beyond said bristles flare outwardly and terminate in a relatively sharp edge, said corrugations being terminated far short of said back.

- 5 2. A tooth brush comprising a back portion having a handle projecting from one end thereof, bristles arranged in rows extending longitudinally of said back and projecting perpendicularly thereto, an endless oblong soft rubber wiper flange permanently united to said back at one edge and completely surrounding said bristles in close association therewith, said flange adjacent said back being of approximately constant thickness, said flange having internal corrugations that extend approximately parallel to the bristles and project beyond the outer portions of said bristles and beyond said bristles terminate in a relatively sharp edge.

3. A tooth brush comprising a back portion having a handle projecting from one end thereof, bristles arranged in rows extending longitudinally of said back and projecting perpendicularly thereto, an endless oblong soft rubber wiper flange permanently united to said back at one edge and completely surrounding said bristles in close association therewith, said flange adjacent said back being of approximately constant thickness, said flange having internal corrugations that extend approximately parallel to the bristles and project beyond the outer portions of said bristles and beyond said bristles terminate in a relatively sharp edge, said corrugations being terminated far short of said back.

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