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R. L. LASATER

2,206,726

RUBBER TOOTHBRUSH

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Fig. 1

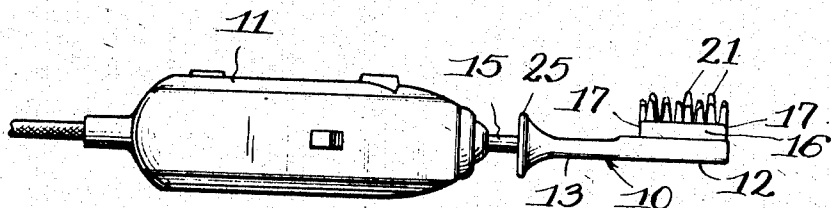


Fig. 2

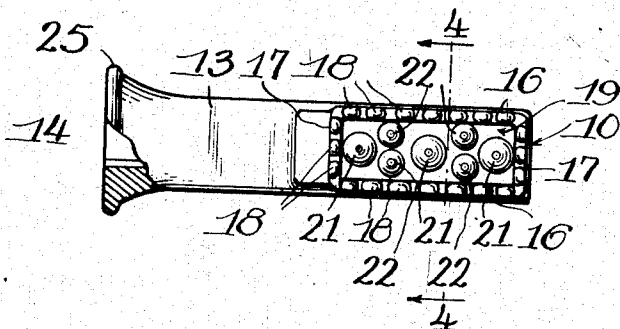


Fig. 3

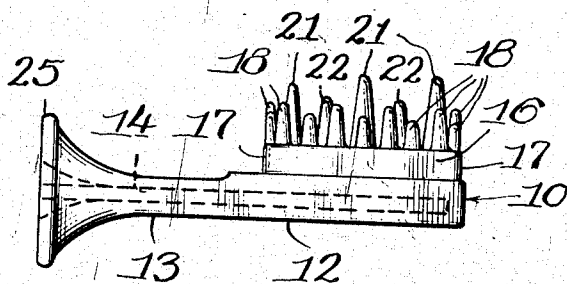


Fig. 4

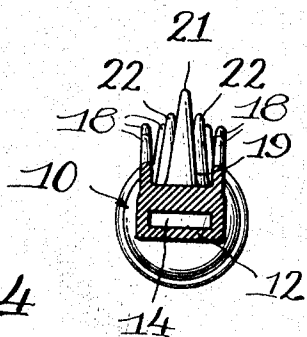
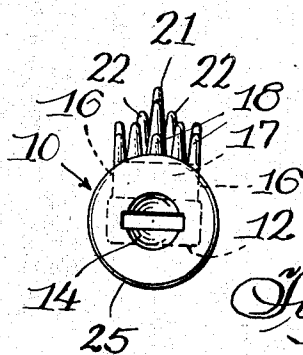


Fig. 5



Witness:
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UNITED STATES PATENT OFFICE

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RUBBER TOOTHBRUSH

Robert L. Lasater, Evanston, Ill.

Application March 18, 1938, Serial No. 196,589

1 Claim. (Cl. 15-188)

This invention relates to improvements in rubber toothbrushes particularly adapted for use with vibrating massage machines, although also capable of manual use.

5 The principal object of the invention is to provide a simple, durable and sanitary device of the character described, that is especially efficient in simultaneously cleaning the teeth and massaging the surrounding gums and tissues. A further object of the invention is to include a reservoir as a part of the device to retain during the cleaning and massaging process a quantity of antiseptic or medicament including tooth paste or powder.

15 The invention may best be understood by reference to the accompanying drawing, in which

Fig. 1 is a side view of an embodiment of the rubber applicator as applied to an electric vibrator.

20 Fig. 2 is an enlarged top view of the rubber applicator head removed from its support or handle.

Fig. 3 is a side view of the applicator head.

Fig. 4 is a section taken on line 4-4 of Fig. 2.

25 Fig. 5 is a rear end view of the applicator head.

Referring to details of the embodiment of my invention illustrated in the drawing, the applicator or brush includes a head 10 as applied to a vibratory mechanism 11. The applicator is made of flexible rubber preferably molded in a single piece and including a base 12, and a shank 13 for attachment either to the vibrator mechanism, or to a rigid support or handle when the device is to be operated by hand as an ordinary toothbrush. In the form shown, the applicator is provided with a pocket 14 opening at the end of the shank and extending into the base 12 of the head for detachably receiving the metal vibrating element 15 of the vibratory mechanism or other supporting means. The supporting element is preferably inserted substantially the full length of the head to reinforce the latter when the brush is in operation, but to permit the applicator to be flexed for cleaning when the reinforcing support is removed therefrom.

30 The head includes an elongated recess formed of upright side walls 16 and end walls 17 surrounding its base, together with a plurality of integrally formed, upstanding fingers 18, 18 spaced at close intervals along said walls, and varying alternately in height, as shown. Said walls and fingers 18 form in effect a trough or reservoir 19 adapted to receive tooth paste, powder or suitable medicaments for application to

the teeth. A plurality of conical shaped projections are also provided, extending upwardly from the base 12 from within the trough 19, in the form shown three relatively large cones 21, 21 being disposed in alignment along the center of said trough, and spaced apart approximately the width of the human tooth. Four somewhat smaller cones 22, 22 are also disposed in laterally-spaced pairs between the center cone 21 and the two end cones 21. The arrangement is such that the center cones 21 project substantially above the fingers 18, 18 on walls 16 and 17, while the cones 22 are slightly higher than said fingers. In the preferred form shown, however, the cones, particularly the larger cones 21, are somewhat more substantial, and therefore stiffer than the fingers 18. A bead 25 is also provided around the end of the shank 13 to guard the vibrating mechanism against flow of liquid from the shank.

35 The use and advantages of my improved rubber brush above described will now be manifest.

Tooth paste, tooth powder or any suitable medicament can be readily placed in the trough 19, thus eliminating spillage and waste which is so common with ordinary toothbrushes or applicators. When applied to a vibrator, as shown in Fig. 1 of the drawing, the brush can be applied to the teeth and gums in various positions as desired, but it is particularly designed so that the larger cones 21 can be fitted in the embrasures between adjacent teeth, for both cleaning and massaging the interdental gum tissues. The smaller cones 22 also assist in such cleaning and massage, while the fingers 18, and indeed the side walls 16 and 17, serve to massage the gums or sub-gingival tissues, whereby the teeth can be cleaned and the surrounding tissues thoroughly stimulated. While the brush is in use, the tooth paste, powder, or other medicament tends to be retained in the trough or reservoir between the walls 16 and 17, and the bases of the cones 21 and 22, in position to be fed outwardly to the teeth and gums as needed. Pressure of the lower side wall against the gums during massage limits escape of the medicament from the brush. After use, the brush can be readily cleaned, preferably by removing it from the vibrator element and flexing the head to assist in removing accumulations within the trough. With this form of device, several members of a family may, of course, each have their individual brushes applicable to a single vibrator.

45 Although I have shown and described one particular embodiment of my invention, it will be

understood that I do not wish to be limited to the exact construction shown and described, but that various changes and modifications may be made without departing from the spirit and scope
5 of my invention as defined in the appended claim.

I claim as my invention:

10 A molded rubber toothbrush including a head having upright walls forming an elongated trough for receiving a quantity of medicament, a plurality of integral massage fingers in spaced relation along said walls, a plurality of integral tapered

massage members extending upwardly from the bottom of said trough and projecting substantially above said massage fingers, said tapered members being substantially stiffer than said
5 massage fingers, and being spaced apart substantially the width of human teeth, so as to fit in the embrasures between the latter for massage of the interdental gum tissues, and restrict the massaging effect of the massage fingers to a limited area.

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