March 30, 1937. H. L. WELKER 2,075,681

DENTAL CLEANING AND MASSAGE DEVICE

Filed Aug. 2, 1935

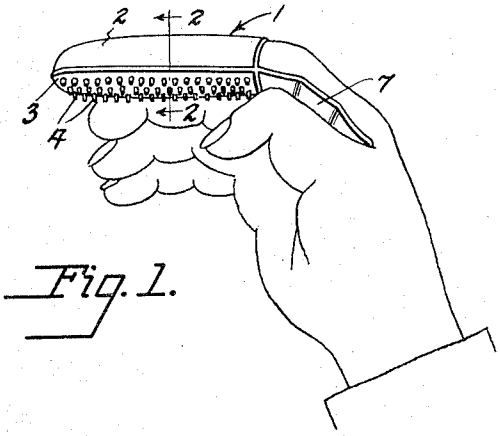


Fig. 1.

Fig. 2.

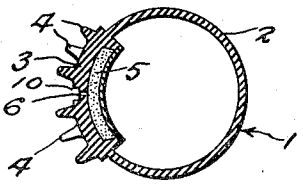


Fig. 3.

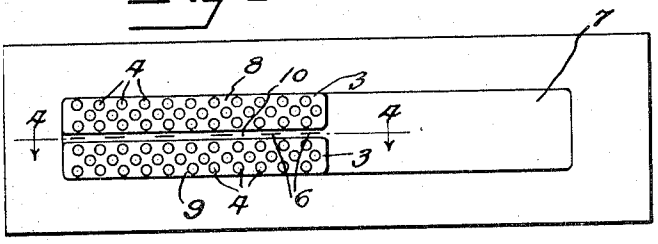


Fig. 4.

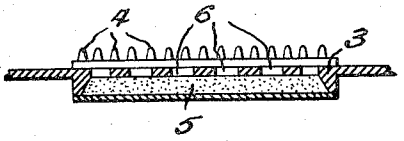


Fig. 5.

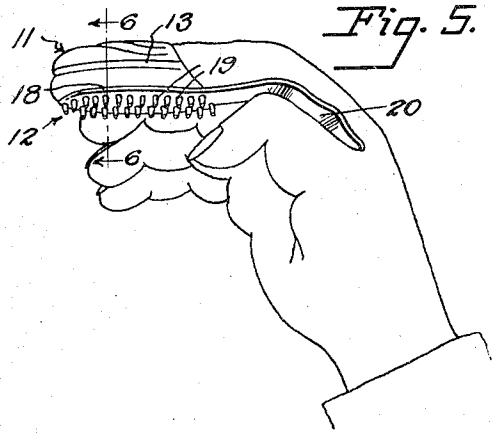


Fig. 6.

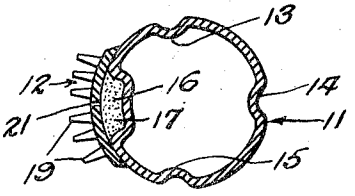


Fig. 7.

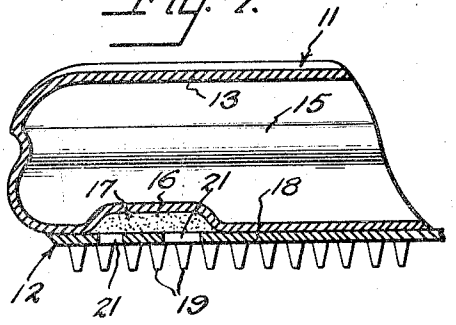
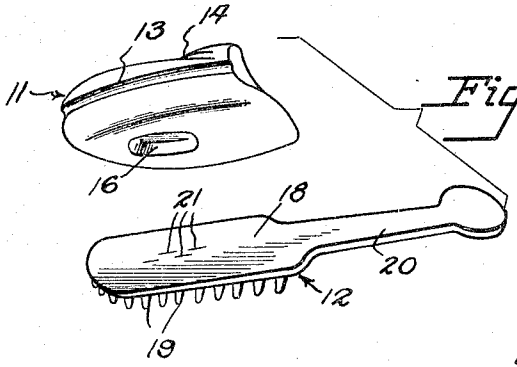


Fig. 8.



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DENTAL CLEANING AND MASSAGE DEVICE

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Application August 2, 1935, Serial No. 34,470

4 Claims. (Cl. 15—188)

This invention relates to a device for cleaning the teeth and massage device adapted primarily for temporary use.

The invention relates to devices designed for temporary use in the cleansing of teeth and massaging the gums of the persons who might find such use necessary or desirable.

It is a common occurrence for travelers and overnight guests to forget the ordinary toothbrush or dental paste, or both, with the result that a new toothbrush or cleanser must be purchased, or the teeth neglected. In my invention, a cheap, temporary cleaning device is provided containing sufficient paste to insure at least one proper cleaning of the teeth and massage of the gums.

My device is intended to be installed in hotel rooms and pullman cars, etc., wrapped in sanitary paper, and placed at the disposal of guests and travelers just as are soap and towels. After the guest has used the device, it may be thrown away and a fresh one used subsequently.

Heretofore, flexible dental cleaning devices have been provided with reservoirs for containing a dentifrice; but where the dentifrice is a powder, the reservoir surface is usually a mesh through which the powder may work, or in the case of paste, open discharge ports which do not hold the paste securely. Such constructions are highly objectionable in that air and germs have access to the dentifrice, with consequent deterioration; whereas, in my invention the dentifrice is sealed at all times until actually used, the discharge ports being normally closed, and opening only when pressure is applied to the reservoir.

The principal object of the invention in its preferred form is to provide a dental cleaning and massage structure of rubber or other flexible material having a reservoir for tooth paste, the whole being adapted to fit as a cot on the finger of the user.

Another object of the invention is to provide the reservoir with discharge openings normally closed to prevent the paste from evaporating, but which open upon pressure being exerted by the finger of the user against the teeth and gums.

Other objects of the invention will appear as the detailed description thereof proceeds.

In the drawing:

Figure 1 is a perspective of one form of the cleaning device shown in position on the finger of a user;

Figure 2 is a vertical section taken on line 2—2 of Figure 1;

Figure 3 is a top plan of a blank showing the front face of the said device as molded;

Figure 4 is a section taken on the line 4—4 of Figure 3;

Figure 5 is a perspective view of a preferred form of the invention shown in position for use;

Figure 6 is a section taken on the line 6—6 of Figure 5;

Figure 7 is a longitudinal central section, to an enlarged scale, of the form shown in Figure 5; and

Figure 8 is an exploded perspective of the preferred form.

In the form of the invention shown in Figures 1 to 4, the device comprises a cot made from rubber or other flexible waterproof and air tight material. The cot 1 comprises a tubular structure 2 adapted to be slipped over the finger of the user substantially as shown in Figure 1 of the drawing. Along one side of the structure 2, there is provided a thickened portion 3, having bristles 4 projecting outwardly from the face thereof. Rearwardly of the thickened portion 3, there is provided a reservoir 5 adapted to receive a dentifrice, preferably of the paste type. To provide for the admission and ejection of the dentifrice, the thickened portion 3 is provided with a series of slits 6, normally closed by the natural resilience of the material from which the device is made.

As shown in Figures 3 and 4 of the drawing, the reservoir 5 extends throughout the greater part of the length of the cot structure 2; and the thickened portion 3 is provided with a rearwardly projecting strip 7, intended to be pressed by the thumb of the user for holding the cot firmly upon the finger during the operation thereof.

As this form is actually made, the rubber is intended to be molded in sheets, as shown in Figure 3, with the bristles 4 extending in rows 8 and 9 and separated by a depression 10 through which the slits 6 extend. These slits are preferably made by a knife of the thin razor blade type, so that the natural resilience of the material causes the apertures to close, as soon as the cutting blade is withdrawn therefrom. In this form of the invention, the paste or other dentifrice will have to be introduced by pressure exerted from the face of the thickened portion 3, through the slits 6.

The form of the invention shown in Figures 5 to 8 inclusive, is preferred, because it is much easier to manufacture than the other form, and the dentifrice can be introduced into the reservoir without having to exert pressure through the slotted massaging face of the device. In this form of the invention, the cot 11 is made sepa-

rate from the cleaning and massaging part 12; and is provided with a series of inwardly directed ridges 13, 14, and 15 designed to provide an outlet for the air in the cot while the latter is being forced upon the finger of the user.

The dentifrice reservoir is formed as a recess 16 in the cot 11, and of a size to receive a charge 17 of dentrifrice sufficient for several cleaning and massaging operations. The massaging and cleaning portion 12 is formed as a flat plate 18 having bristles 19 projecting from one face thereof; and having a holding tab or strip 20 projecting from the rear end of the plate 18. In this form of the invention, slits 21 are cut through the strip 18 by a knife of the razor blade type, so thin as to permit the slits 21 to close by the natural resilience of the material from which the plate 18 is made.

The cot 11 and plate 18 are separately made. The recess 16 is first filled with the desired charge of dentifrice 22; then the strip 18 is applied to the cot 11, so that the slits 21 shall be in position to permit discharge of the dentifrice 22 upon the application of pressure by the finger of the user on the rear of the reservoir 16 and against the teeth and gums of the user.

The invention is not particularly concerned with any apparatus or method of making the same. The claims appended hereto will be directed to the invention as an article of manufacture, regardless of any machine or method which may be utilized in the form mentioned thereof.

What I claim is:

1. A dental cleaning and massaging device comprising a finger cot of resilient material having inwardly directed ridges extending lengthwise thereof and having a recess formed therein to receive a charge of dentifrice, a plate of resilient material having bristles projecting from one face thereof and secured to said cot to cover said recess, said plate being provided with an aperture normally closed but adapted to be opened by pressure applied to said recess and bristles to discharge dentifrice from the recess on to said bristles.

2. A dental cleaning and massaging device comprising a finger cot of resilient material having inwardly directed ridges extending lengthwise thereof and having a recess formed therein to receive a charge of dentifrice, a plate of resilient material having bristles projecting from one face thereof and secured to said cot to cover said recess, said plate being provided with an aperture normally closed but adapted to be opened by pressure applied to said recess and bristles to discharge dentifrice from the recess on to said bristles, said plate having a tab projecting from one end thereof to be clamped between the fingers of the user.

3. A dental cleaning and massaging device comprising a finger cot of resilient material, having a recess formed therein to receive a charge of dentifrice, a plate of resilient material having bristles projecting from one face thereof and secured to said cot to cover said recess, said plate being provided with an aperture normally closed but adapted to be opened by pressure applied to said recess and bristles to discharge dentifrice from the recess on to said bristles.

4. A dental cleaning and massaging device comprising a finger cot of resilient material, having a recess formed therein to receive a charge of dentifrice, a plate of resilient material having bristles projecting from one face thereof and secured to said cot to cover said recess, said plate being provided with an aperture normally closed but adapted to be opened by pressure applied to said recess and bristles to discharge dentifrice from the recess on to said bristles, said plate having a tab projecting from one end thereof to be clamped between the fingers of the user.

HARRY LOGUE WELKER.