Feb. 25, 1936. W. E. D. TURNER 2,031,990

BRUSH

Filed Nov. 17, 1932

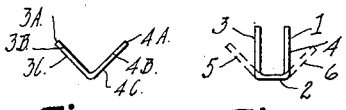


Fig. 3.

Fig. 2.

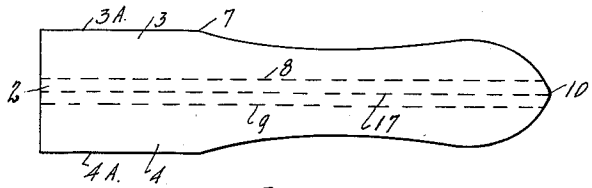


Fig. 1.

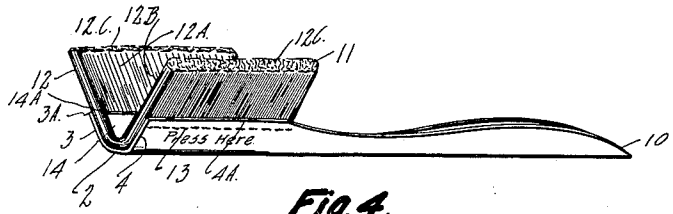


Fig. 4.

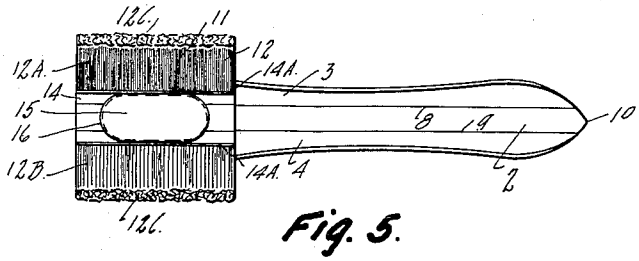


Fig. 5.

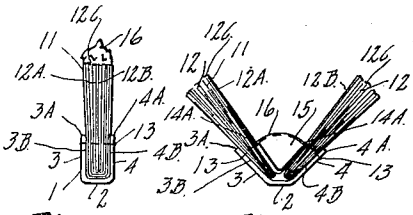


Fig. 7.

Fig. 8.

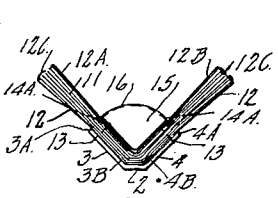


Fig. 6.

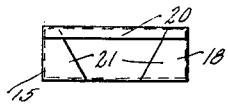


Fig. 11.

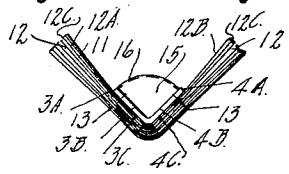


Fig. 9.

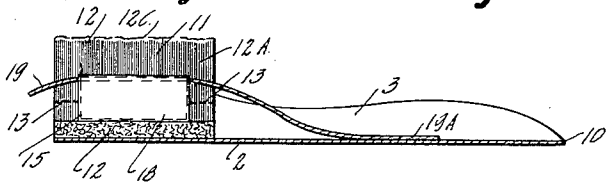


Fig. 10.

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BRUSH

William E. D. Turner, Portland, Oreg., assignor to Turgard, Inc., Portland, Oreg., a corporation of Oregon

Application November 17, 1932, Serial No. 643,046

12 Claims. (Cl. 15—167)

My invention relates to brushes, and more particularly to paste-spreading brushes, having the bristles thereof spaced for the reception of the paste to be spread when the same is forced to the ends of the bristles by pressure against the sides thereof.

People are now giving more attention to the preservation of their teeth. As a means toward the end they frequently brush their teeth using pastes and powders of various compositions and properties as aids in the cleansing operation. These cleansing operations usually take place in the home where the necessaries may be kept more conveniently, as it is not convenient to carry a brush and paste tube about on the person, when one is away from home, so that they may be used when and where needed. When people dine out they must frequently wait for hours or until they return home to clean their teeth. Again, many people, when away from home on a trip, either forget to take their brush and paste with them or find it inconvenient to do so.

It is my intention to dispense this article from slot machines placed in the rest rooms of hotels, restaurants, office buildings, department stores, recreation places, public comfort stations, oil stations, boats, and trains, so that, for a very small charge, a person may conveniently have at hand, when away from home, the means to cleanse his or her teeth.

An object of my invention is to provide a brush and sufficient paste for a cleansing combined in such a form that they may be dispensed as a unit ready for use.

A still further object is to provide a cleansing unit of such small cost as to permit of its discard after once being used.

My invention lies particularly in the novel arrangement and construction of the cleansing unit the underlying principle of which is clearly illustrated in the accompanying drawing.

Thruout the drawing and specification similar numerals refer to similar parts.

Fig. 1 is a plan view of the one-piece blank from which the brush handle and the bristle-supporting structure is formed; Fig. 2 is an end view showing the blank formed as a U-shaped section; Fig. 3 is an end view showing the blank formed as a V-shaped section; Fig. 4 is a perspective view of the brush; Fig. 5 is a plan view; Fig. 6 is an end view of Fig. 5; Fig. 7 is an end view of Fig. 5 after the paste is forced upwardly into position to use; Fig 8 is an end view showing separate non-continuous layers of bristles; Fig. 9 is an end view showing a brush with a V-shaped bristle-supporting structure and the bristles secured on the outer surface; Fig. 10 is a longitudinal vertical section thru a brush in which the paste is in a package provided with a rip-cord; Fig. 11 is a side view of a paste package having a short top-sealing flap opened by side pressure on the package.

In what I believe, at this time, to be the preferred form of my invention, the normally U-shaped section 1 shown in Fig. 2 includes the back portion 2 about which the sides 3 and 4 may hinge as shown by the dotted outlines 5 and 6. It is formed by folding the blank 7, shown in Fig. 1, along the creasing lines 8 and 9 respectively. The blank 7 may be cut or stamped from suitable flat sheet material such as a rather stiff, hard-calendered paper preferably prepared so as not to readily absorb moisture. Opposite the handle end 10 of the blank 7 the sides 3 and 4 are widened out for a distance normally the length of the brush 11 formed of layers of bristles 12 of sufficient thickness to give the desired body to the brush.

In Figs. 4, 5, 6, 7, 9 and 10, the bristles 12 are in one length sufficient to extend beyond the edges 3A and 4A of the widened portions of the sides 3 and 4 to give the desired exposed length which approximates 55% of the bristle length adjacent either of the sides 3 and 4. The layers of bristles 12 are positioned intervening the sides 3 and 4 and are pasted, or sewn as shown by the stitching 13, to their inner faces 3B and 4B respectively.

A facing piece 14 of moisture resisting material is pasted over the top layer of the bristles 12. The width of the facing piece 14 being such as to bring its edges 14A to the same plane as the edges 3A and 4A of the sides 3 and 4. Instead of pasting this facing piece 14 in place it also may be secured by the stitching 13.

Upon the facing piece 14 is placed the material to be spread by the bristles 12, such as the paste 15, which may be tooth paste. The paste 15 may be covered in one of several ways such as by a coating of paraffin 16 shown in Figs. 5, 6, 8 and 9. The object of this paraffin coating 16 is to hermetically seal the paste 15 so as to keep it in an unimpaired condition until ready for use.

The natural tendency of the sides 3 and 4 is to assume the position shown by the dotted outlines 5 and 6 of Fig. 2, especially after the bristles 12 are attached and the paste 15 placed and sealed.

When it is desired to use the brush 11, the sides 3 and 4 are simultaneously pressed together be-

tween the thumb and forefinger of the user's hand (not shown) thus returning the sides 3 and 4 to their normally vertical position as shown in Fig. 7. As pressure is applied to the sides 3 and 4 and the faces 12A and 12B of the bristles 12 brought together, the paraffin cover 16 is broken and the paste 15 is forced upwardly between the faces 12A and 12B to the top surface 12C of the bristles 12 ready for use.

In the form shown in Fig. 8, the layers of bristles 12 attached to the side 3 are separate from those attached to the side 4. The bristles 12 may thus be shorter or they may be long enough to be doubled back on themselves as illustrated. In all other respects the arrangement and construction, together with the operation, may be the same as heretofore set forth.

In the form shown in Fig. 9, the blank 7 is folded only once and that along the creasing line 17, which is centrally positioned, thus forming the V-shaped section shown in Figs. 3 and 9. The bristles 12 are shown in one length and are secured by the stitching 13 to the outer faces 3C and 4C of the sides 3 and 4 respectively. The facing piece 14 is eliminated and the paste 15 is placed between the diverging sides 3 and 4 and sealed by the paraffin 16. The facing piece 14 is not necessary in this form of construction for it is primarily used to provide a more sanitary seal so therefore if the material of the blank 7 is non-absorbent it will suffice. In closing together the sides 3 and 4 to force the paste 15 upwardly to the top surface 12C of the bristles 12 their inner faces 3B and 4B will be brought together.

The facing piece 14 may also be eliminated in all three of the forms above set forth by packaging the paste 15 as a means of hermetically sealing it in a sanitary manner. These packages may be formed in many different ways and opened in many different ways. In Fig. 10, I have shown a package 18 of non-absorbent material provided at its upper edge with a rip-cord 19 one end 19A of which is securely pasted to the back portion 2 of the blank 7. In Fig. 11 is shown a package 18, of non-absorbent material, which has a short sealing flap 20 adapted to yield ahead of the longer end flaps 21 when the paste 15 within the package 18 is put under pressure. When the paste 15 is sealed as in a package 18 the package should be pasted to one or both of the faces 12A and 12B of the bristles 12, or to one or both of the inner faces 3B and 4B of the sides 3 and 4 respectively. The brush 11 may be dispensed enclosed in an envelope which is not shown nor made part of my invention.

While I have described my invention as being used for a particular purpose and as taking a particular form, it will be understood that I may use it, for instance, as a paste comb, and that its various parts may be changed without departing from the basic principle and spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider myself at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A brush formed of a blank having portions folded to provide two sides, bristles secured to the inner faces of and extending beyond each of said sides, said sides being spaced apart and having therebetween a cavity for the reception of the material to be spread by the bristles, said material being caused to rise to the top of the bristles to position to be spread when simultaneous inwardly-exerted pressure is applied to the sides.

2. A brush, including a stamped blank having a brush portion and a handle portion, the brush portion being creased to fold and provide two sides, bristles secured to the inner faces of and extending beyond each of said sides, said sides being spaced apart and having therebetween a cavity for the reception of the material to be spread by the bristles, said material being caused to rise to the top of the bristles to position to be spread upon simultaneous inwardly-exerted pressure being applied to the sides.

3. A brush being a one-piece blank having portions, constituting sides, separated by convergent fold creases, bristles secured to the outer faces of and extending beyond each of said sides, said sides being spaced apart to provide a spacing therebetween for the reception of the material to be spread by the bristles, said material being compelled to rise to the top of the bristles to position to be spread when the degree of spacing between the sides is decreased.

4. A paste-spreading brush having a bristle-supporting structure with opposed inwardly yieldable side portions, bristles secured to and movable with the side portions, a cavity formed therebetween when said side portions are outwardly extended, for the reception of the paste, and means to hermetically seal the paste until ready to use.

5. A paste-spreading brush having a bristle-supporting structure with opposed inwardly yieldable side portions, bristles secured to and movable with the side portions, a cavity formed therebetween when said side portions are outwardly extended, for the reception of the paste, and means to hermetically seal the paste until ready to use, said means being rupturable upon the exertion of simultaneous inward pressure against the inwardly yieldable side portions.

6. A paste-spreading brush having a bristle-supporting structure with opposed inwardly yieldable side portions, bristles secured to and movable with the side portions, a cavity formed therebetween when said side portions are outwardly extended, for the reception of the paste, and means to hermetically seal the paste until ready for use, said means being upwardly openable upon the exertion of simultaneous inward pressure against the inwardly yieldable side portions.

7. A paste-spreading brush having a bristle-supporting structure with opposed inwardly yieldable side portions, bristles secured to and movable with the side portions, a cavity formed therebetween when said side portions are outwardly extended, for the reception of the paste, and means to hermetically seal the paste until ready for use, said means being adapted to be ruptured.

8. A brush formed of a blank having lateral portions bent to an upright position with regard to the horizontality of such blank to provide a member U-shaped in cross section, bristles secured to the sides of said lateral portions and extending beyond their upper edges, and the lateral portions being spaced apart to provide a receptacle for holding a substance or the substances to be spread by such bristles.

9. A brush formed of a blank of fibrous material having portions adapted to be folded or bent to an upright position with regard to the horizontality of such blank, the upright portions constituting sides, bristles secured to said sides and projecting above their upper edges, said sides

being spaced apart, the spacing existing between said sides constituting a receptacle for a substance or substances to be spread by said bristles, which substance or substances commingle with the bristles when said sides are pressed toward each other.

10. A brush formed of an elongated flat blank having bristle supporting lateral portions at one end, said blank being constructed to provide for the folding or bending of the lateral portions toward each other, and bristles secured to each bristle supporting portion.

11. A paste spreading brush comprising a blank having a head and handle portion, the head portion having bristles secured to supports extending longitudinally thereof and being separated from one another to provide a space therebetween to hold a substance spread by such bristles, and a rupturable sac for containing the substance to be spread.

12. A paste spreading brush comprising a blank having a head and hand portion, the head portion having bristles secured to supports extending longitudinally thereof and separated from one another to provide a space therebetween to hold a substance spread by such bristles.

WILLIAM E. D. TURNER.