ATTACHED SELF-SUPPORT COMPRESSED TOOTHBRUSH

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ABSTRACT OF THE DISCLOSURE

A toothbrush having an aerosol can type handle with toothpaste therein which is squeezed directly therefrom through the brush to the brush bristles. An eccentric weight on a wheel is mounted in the toothbrush causing an oscillation of the toothbrush when the wheel is rotated.

This invention relates generally to toothbrushes. More specifically it relates to toothbrushes of fountain type.

A principal object of the present invention is to provide a toothbrush having a hollow body, the toothbrush being securable to a pressure can containing toothpaste which is squeezed directly therefrom through the brush body to the brush bristles.

Another object is to provide a toothbrush wherein compressed air forces the toothpaste to the bristles.

Yet another object is to provide a toothbrush wherein the pressure can serve as a brush handle.

Yet another object is to provide a toothbrush which is readily removable from the pressure can after the can is empty, and is then securable to a fresh pressurized can containing toothpaste.

Briefly, the invention is directed to a combination of a toothbrush which has a body containing a passage extending therethrough for the flow of toothpaste to a plurality of openings on one side, a plurality of tufts of bristles secured to the one side of the body about the openings and a wheel which is rotatably mounted in the passage. The wheel has an eccentric weight thereon as well as a plurality of peripheral teeth which interrupt the passage. The combination further includes a flexible sleeve secured to and extending from the body in communication with the passage so that a flow of toothpaste passing through the passage past the wheel causes rotation of the wheel and a corresponding oscillation of the toothbrush with respect to the sleeve. The sleeve is further connected to a pressurized source of toothpaste so that the flow of toothpaste from the source induces the oscillation of the toothbrush body relative to the source.

Other objects are to provide an attach self support compressed toothbrush which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawings wherein:

FIGURE 1 is a side view of the present invention,
FIGURE 2 is a cross section through the brush taken in the same plane,
FIGURE 3 is a cross sectional view of a modified form of the invention, and
FIGURE 4 is an enlarged view of a detail shown in FIGURE 3.

Referring now to the drawing in detail, the reference numeral 10 represents an attach self support compressed toothbrush according to the present invention, wherein there is a brush 11 that is securable to a pressure type can 12 containing toothpaste.

The brush 11 comprises a plastic hollow body 13 having tufts of bristles 14. A central opening or passage 15 extends from one end 16 to a series of openings 17 between the bristle tufts, the ends 16 removably receiving therein the nozzle 18 of the pressure can.

In operative use, as shown in FIGURE 1, the nozzle is tilted to open a valve allowing the toothpaste to squeeze from the can to the bristles.

In a modified form of the invention shown in FIGURES 3 and 4, the brush 30 includes a rotatable wheel 38 located within the central opening 31 transversely of the bristles, the wheel having a weight 32 eccentrically fitted thereto, and the wheel having teeth 33 which interrupt the passage 15. The brush is secured to one end of a rubber sleeve 34 secured at its other end over the nozzle 18 of the pressure can. In this form of the invention the brush is oscillated back and forth during the toothpaste dispensing action as is indicated by the arrow 35. When the nozzle is tilted by the finger 36 to open the can valve, toothpaste rushes through passage 37 forcing pressure against teeth 33 of the wheel and causing it to rotate. The eccentric weight 32 imparts a side to side thrust force to the brush causing it to pivot rapidly side to side as shown by the phantom lines in FIGURE 3, made possible by the flexing of the rubber sleeve. In this form of the invention the passage 37 should be made relatively thin so that a dispensing action may be continued during brushing operation without excessive toothpaste being delivered to the bristles in this time. Thus a device is obtained that produces the brushing action of the conventional "electric toothbrushes," but which is superior because fresh toothpaste continues to be discharged to the teeth during the entire brushing action.

While various changes may be made in the detail construction, it is understood that such changes will be within the spirit and scope of the present invention as is defined by the appended claims.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In combination, a toothbrush comprising a body having a passage extending therethrough for the flow of toothpaste therethrough and a plurality of openings on one side thereof in communication with said passage, a plurality of tufts of bristles secured to said one side of said body about said openings, and a wheel rotatably mounted in said passage, said wheel having an eccentric weight thereon and a plurality of peripheral teeth interrupting said passage; a flexible sleeve secured to and extending from said body in communication with said passage and means for supplying toothpaste through said sleeve whereby a flow of toothpaste through said passage past said wheel causes rotation of said wheel and a corresponding oscillation of said toothbrush with respect to said sleeve.

2. The combination as set forth in claim 1 wherein said wheel is disposed transversely of said bristles to cause a side to side pivoting of said toothbrush relative to said sleeve.

3. The combination as set forth in claim 1 wherein said sleeve is a rubber sleeve secured over said body.
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4. The combination as set forth in claim 1 wherein said means is a pressurized source of toothpaste connected to said sleeve oppositely of said body.

5. The combination as set forth in claim 4 wherein said source includes a pressure type can and nozzle for dispensing of toothpaste from said can through said sleeve into said passage of said body.

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