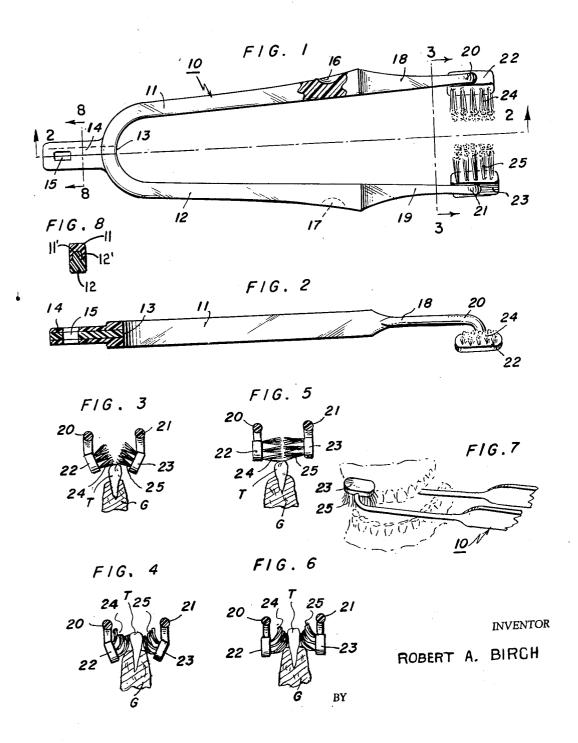
COMBINATION TOOTH BRUSH AND GUM MASSAGER

Filed July 28, 1959



1

3,067,447 COMBINATION TOOTH BRUSH AND GUM MASSAGER Robert A. Birch, 225 E. 73rd St., New York, N.Y. Filed July 28, 1959, Ser. No. 830,150 1 Claim. (Cl. 15—167)

This invention relates to a combination tooth brush and gum massager.

The primary object of the present invention is to provide 10 a tooth brush having opposed bristles angularly disposed toward each other.

A still further object is to provide a flexible U-shaped handle carrying brushes on the opposed ends or arms of the U-shaped handle.

A still further object is to provide a combination tooth brush and gum massager which cleanses and massages the inner and outer surfaces of the gums and teeth at the same time.

A still further object is to provide a device of this 20 type which can be made of plastic or other suitable material.

A further object is to provide a device as described which has an extension for hanging the brush on a wall when not in use.

These objects I accomplish by means of such structure and relative arrangement of parts thereof, as will fully appear by a perusal of the description below and by various specific features which will be hereinafter set forth.

To the above cited and other ends and with the fore- 30 going and various other novel features and advantages and other objects of my invention as will become more readily apparent as the description proceeds, my invention consists in certain novel features of construction and the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claim hereunto annexed and more fully described and referred to in connection with the accompanying drawings wherein:

FIGURE 1 is a tip plan view of my device.

FIGURE 2 is a side elevational view of the device, 40 taken on the line 2-2 of FIGURE 1.

FIGURE 3 is a cross sectional view showing the angular bristle arrangement, taken on the line 3-3 of FIGURE 1, and showing it prior to its movement toward the gum.

FIGURE 4 is a cross sectional view similar to FIGURE 45 3, but showing the brush moved toward the gum so that the sides of the bristles are in massaging position on the

FIGURE 5 is a modification, showing the retaining members parallel to each other and the bristles in horizontal alignment.

FIGURE 6 shows the structure of FIGURE 5 as it appears when in use on the teeth and gums.

FIGURE 7 shows the device in use on the upper teeth and gums.

FIGURE 8 is a cross sectional view of the extension, taken on the line 8-8 of FIGURE 1.

The two arms can be cast integrally or can be individually cast and assembled as shown in FIGURES 1 and 2. To simplify assembly and disassembly, a tongue 12' is cast on arm 12 and its extension, and a groove 11' is formed on arm 11 and its extension whereby the two members can be slid together and apart as desired. If desired, they can be permanently fastened by gluing, but it is preferable to leave them movable. That way, they can be disassembled and used as individual brushes for brushing the flat or masticating surfaces of the teeth.

Referring to the drawings in detail, the numeral 10 represents the device as a whole, having arms 11 and 12 joined by a bight portion 13. On the outer side of the bight portion is extension 14 having an aperture 15

formed therein, said extension used to suspend the device from a nail or other support when not being used. Extension 14 may also be inserted into a tooth brush rack just as any regular tooth brush, thus causing the instrument to stand in an upright position.

Indentations 16 and 17 formed in the arms 11 and 12 are for ease in gripping the device when using it.

The portions 18 and 19 of the arms 11 and 12 respectively, have arcuately formed outer surfaces which conform to the curve of the user's cheek when the device is used for massaging and brushing the front teeth.

The remote ends of the arms 11 and 12 are curved at 20 and 21 respectively, and have bristle retaining members 22 and 23 respectively, formed integrally therewith or attached thereto in any suitable manner. This angular mounting of the bristle retaining members allows the gums to be massaged and the teeth brushed simultaneously with the handle held in a horizontal position. The cure on the portions 20 and 21 of the arms is shown as a sharp 90° but may be greater or less if desired.

The bristle retaining members 22 and 23 may be angularly disposed in relation to the arms 11 and 12, or may be in a planar relationship with said arms, if the first is true, then the bristles should be at right angles to said retaining members, if the second is true, then the bristles should be at an angle to said retaining members, the whole idea being to get the bristles angularly disposed in relation to the teeth and gums.

As shown in FIGURE 3, the bristles are mounted at right angles to the retaining member, due to the angular disposition of the retaining member to the arms, whereas in FIGURE 4 the bristles are angularly mounted in relation to the retaining members, due to the retaining members being in a planar relationship with said arms.

When it is desired to use one of the opposed brushes only, for brushing the contact surfaces of the teeth, the resilient arms 11 and 12 are twisted slightly so that the two brushes will not be aligned, then either one of the brushes can be used as a regular tooth brush on the flat surfaces of the teeth.

The most beneficial massaging action occurs when the angular bristles are placed over the teeth and the bristles then moved toward the gum (as shown in FIGURES 4 and 6). A constant tension is exerted by the operator squeezing the arms 11 and 12 toward each other at the same time the sides of the bristles are moving over the gingivae in a gentle rotating vibratory motion that all dentists stress. The intermittent pressure of this massaging action increases circulation and promotes healthier gums. FIGURES 4 and 6 show the massaging of the lower gum, to massage the upper gum, the device would be reversed. The main point to remember is that the massaging must always be done from the tooth T towards the gum G with the bristles lying on their sides as shown in FIGURES 4 and 6. This movement causes a pumping action or effect on the blood in the gums, bringing it to the surface. Brushing alone cannot do this, it can only be done by the specific action as described.

Leading dentists recommend massaging gums with a bristle tooth brush using the sides of the bristles rather than any other way, and this device will perform the massaging action perfectly, as well as performing the brushing action on the teeth.

From the above description it will be apparent that 65 there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the 70 principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to

structural features, it is to be understood that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claim.

What is claimed is:

A combined tooth brush and gum massage device, comprising a two part, separable, resilient, U-shaped handle 10 portion having combined supporting and joining means on the bight portion of said U, one of said parts having a longitudinal tongue portion formed on said supporting means and axially aligned with said handle portion, the other part having a mating longitudinal groove formed on 15 said joining means, said tongue and groove being formed so that assembly and disassembly can be accomplished only by sliding the parts axially together and apart along the axial line of said handle portion, curved tapering arms of substantially reduced diameter on the ends of the 20 U-shaped handle remote from said bight portion, said arms being curved at a 90° angle and terminating in top

end portions, bristle holding means integral with said curved ends and situated on the top end portions of said curved ends.

References Cited in the file of this patent UNITED STATES PATENTS

D. 48,666	Boccia Mar. 7, 1916
680,365	Stark Aug. 13, 1901
715,263	Haussmann Dec. 9, 1902
741,722	Ryder et al Oct. 20, 1903
1,565,750	Nathanson Dec. 15, 1925
1,679,946	Ruff Aug. 7, 1928
2,232,269	Reuben Feb. 18, 1941
	FOREIGN PATENTS
17,726	Switzerland Sept. 10, 1898
253,294	Germany Nov. 6, 1912
169,217	Great Britain Sept. 9, 1921
703,841	France Feb. 10, 1931
911,243	France Mar. 4, 1946