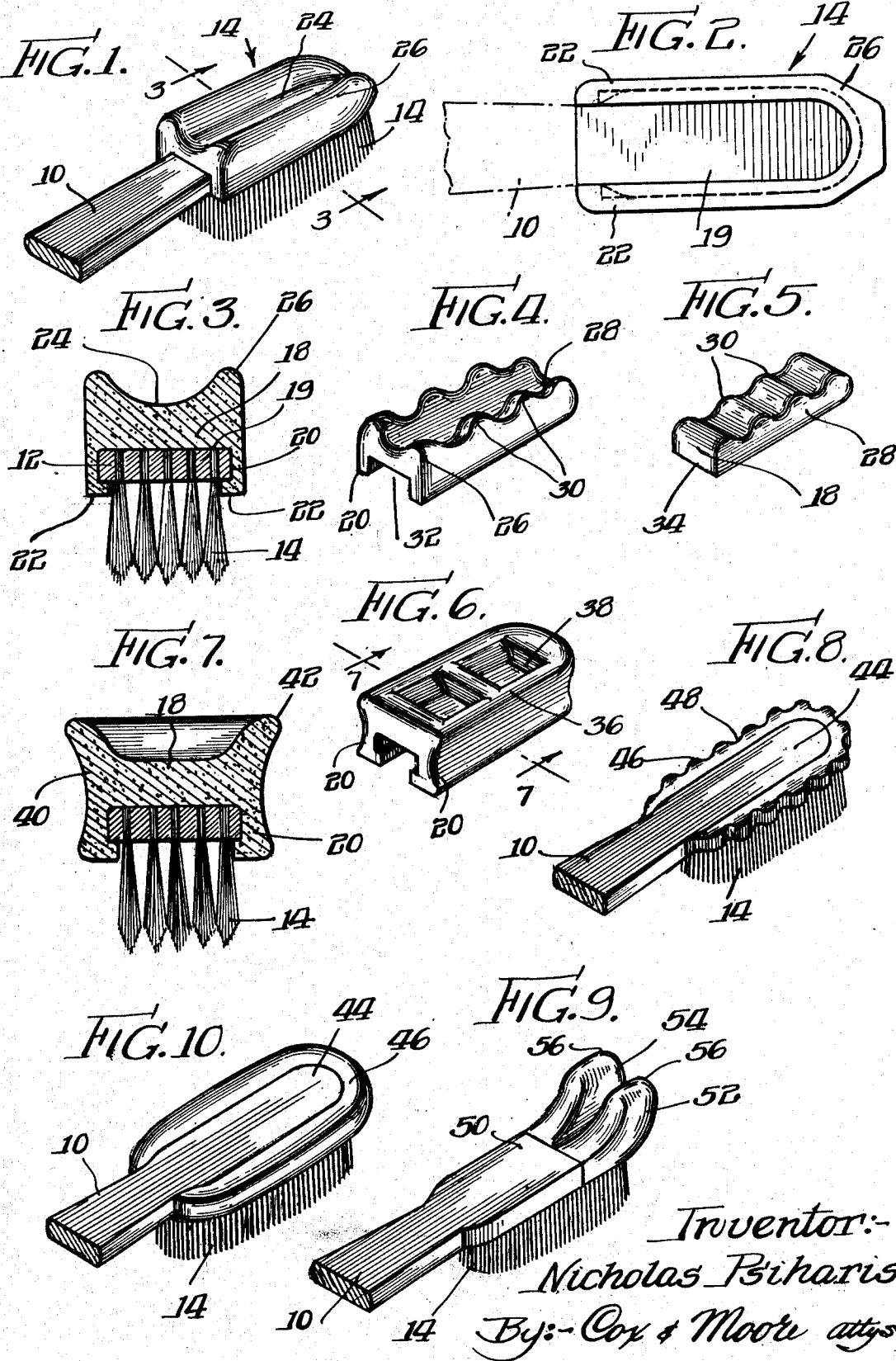


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GUM MASSAGE DEVICE  
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## GUM MASSAGE DEVICE

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3 Claims. (Cl. 128-62)

The present invention relates to a device for massaging the gums and more particularly to a device which may be employed in conjunction with an ordinary tooth brush.

It is an object of the present invention to provide a new and improved resilient gum-massaging device which will permit firm and regular massaging of the gums adjacent the line at which they meet the teeth.

Another object of this invention is to provide an improved gum-massaging device adapted either for attachment to a tooth brush, or for use separately and which will permit firm, continuous engagement with the gums over a considerable extent during manipulation.

Numerous other objects and advantages will more fully appear during the course and progress of the following specification.

Figure 1 is a perspective view of a tooth brush and massaging device constructed in accordance with the present invention.

Figure 2 is a bottom plan view of the device shown in Figure 1.

Figure 3 is a sectional elevation taken on the line 3-3 in Figure 1.

Figures 4, 5 and 6 are perspective views of alternative structures made in accordance with the present invention.

Figure 7 is a sectional elevation taken on the line 7-7 in Figure 6.

Figures 8, 9 and 10 are perspective views of alternative structures made in accordance with the present invention.

The various devices, which have been heretofore employed for cleansing the teeth and the surrounding vicinity of the oral cavity, have commonly been provided with bristles or projecting fingers. Devices of this nature normally exert a scrubbing action, as opposed to a true massaging effect, and, even though the bristles or fingers are made of resilient material such as rubber or the like, their inherent flexibility results in a natural tendency for them to spread or flatten and prevent the necessary resilient pressure to permit any real utility. According to the present invention, a massaging device is provided which permits engagement of the gums adjacent the edge thereof with a resilient but firm, flat pressure.

One form of device constructed in accordance with the present invention is shown in Figures 1, 2 and 3 of the drawing in conjunction with the more or less conventional form of tooth brush which comprises a handle portion 10 and a gen-

erally elongated, rectangular head portion 12 to which are fixed the usual mass of bristles 14 for brushing the teeth. The handle and head portions may be composed of bone, Celluloid or any other suitable, relatively rigid material.

The massaging head 16 comprises a resilient unit applied to the back of the tooth brush or, in other words, to the head portion 12 on the side opposite that to which the bristles are secured.

In the present preferred embodiment the massaging device comprises a rectangular block of rubber or other resilient material 18 of slightly larger extent than the head portion 12 and having a face 19 adapted to reside against the head portion of the brush. Downwardly projecting edge or flange portions 20 serve to engage the edges of the head 12 and may be provided at their lower end, as viewed in Figure 3, with inwardly extending portions 22 to engage under the head.

The above described structure accordingly provides a pocket designed to engage about the brush for holding the massaging unit in operative position on the head thereof, its natural resiliency permitting the attachment to be slipped into place into operative position or removed as desired.

The upper surface of the massaging unit is formed to provide a longitudinally extending groove 24 which has the effect of creating two separate, parallel, upstanding ridges 26 along the edge thereof. The ridges may be suitably rounded, both transversely and adjacent their front portion, to obviate the existence of any relatively sharp corners.

In use, after brushing the teeth in the usual manner, the surface of the massaging device comprising the two ridges 26 may be placed flatwise against the teeth and gums with the uppermost ridge 26 residing along the gum adjacent the line of demarcation between the teeth and gums. In this position the upper ridge 26 will engage the gums with a flat, firm pressure along a considerable length thereof and will accordingly tend to grasp the tissue and permit manipulation readily in all directions.

Moreover, due to the configuration shown, the ridge 26, by the application of some pressure, may be actually distorted outwardly and sidewardly and will tend to actually engage under the gums.

The alternative form of device shown in Figure 4 is provided with a pair of ridges, one on either edge of the head of the brush, which extend generally longitudinally thereof and may be used and manipulated in the same manner

as the previous embodiment. However, the ridges 26 in this embodiment are interrupted by a plurality of transverse grooves 28 which serve to give the ridges a serrated or scalloped longitudinal configuration. This structure permits more uniform contact with irregular gum surfaces with the result that the upstanding portions of the rib 30 tend to extend into, and to follow, the indentations in the gums. The embodiment disclosed in Figure 4 comprises downwardly projecting edges 20 providing a pocket or enclosure 32 for engagement about the head of the tooth brush and this engagement may be maintained by any suitable glue or cement.

The embodiment illustrated in Figure 5 comprises a relatively narrow block 18 of resilient massaging material of generally the same or less width than the tooth brush or aperture with which it is intended to be employed. In this structure the central, longitudinally extending rib is omitted since the device in itself is relatively narrow, but the upper surface is provided with a series of transverse grooves or shallow portions 28 providing a plurality of scallops or serrations 30 which are employed for the purpose and in the manner disclosed in Figure 4. In this form of device the enclosing or pocket formation for engaging the head of the applicator is omitted and the resilient block 18 is secured thereto by a layer of glue or cement on the lower surface 34.

The embodiment disclosed in Figure 7 comprises a relatively solid block of rubber 18, the upper surface 36 of which is indented with a pair of pockets or rectangular depressions 38. A longitudinally extending groove 40 similar in configuration to that disclosed in the initial preferred embodiment is formed upon the side faces of the block 18 providing ridges 42 with which the gums may be massaged in the manner previously indicated with the side faces of the device held flatwise against the gums and the teeth. The indentations 38 assist in providing the necessary resiliency for the ridges 42.

In the yet further preferred structure shown in Figure 8, the relatively rigid handle portion 10 of the brush is extended to provide an integral head having a relatively rigid central portion 44 and an outwardly projecting, resilient edge portion 46. The rigid portion 44 of the head, as in the previous embodiments, serves to mount and support the bristles 14. The resilient projecting edge portion 46 extends outwardly a considerable distance from the portion 44 and may be given a serrated or scalloped configuration by the vertically extending grooves or indentations 48 in order to assist in massaging in the manner hereinbefore described. The portion 46 may be constructed of rubber, for example, or any other elastic or resilient plastic material which may be either cemented to the central portion 44 of the head, or may be molded integrally therewith in various known ways.

The embodiment disclosed in Figure 9 comprises a relatively rigid head portion 50 for supporting the bristles and a resilient block 52 adjacent the end provided with a longitudinally extending, central groove 54 forming parallel, longitudinally extending ridges 56 similar in configuration to those disclosed in Figure 1, but being of lesser longitudinal extent.

The structure disclosed in Figure 10 is similar

to that shown in Figure 8, but omits the indentations 48 and provides ridges 46 extending outwardly from the side portion of the head for a considerable distance.

The present invention provides a novel form of massaging device in which a substantial portion of the gums may be engaged and manipulated in the proper manner in order to stimulate circulation and promote the general healthfulness of the oral cavity. The action provided in devices made in accordance with the present invention is that of true massaging as compared with a brushing or other improvised action and results from the relatively flat, even pressure and adherence of the resilient massaging device to the portions of the gums just adjacent their edge where stimulation is known to be important.

While rubber in general may be used to provide the ridge portions, nevertheless it will be apparent that any suitable resilient and elastic plastic material may be employed.

Specifically the use of sponge rubber free from grit has been found preferable while the surfaces of the unit so formed may, if desired, be provided with a uniform coat of latex in the interest of impermeability.

Moreover, although the device is particularly useful in connection with a tooth brush, it may be employed separately upon other applicators or as a finger cot or stall. When used in the preferred manner in conjunction with a tooth brush, the movement thereof for massaging will be much the same as the usual movement of the brush in cleansing, thus expediting and simplifying the operation.

By the term "rubber" as used in the present specification and claims is meant yieldable or soft rubber both in natural and artificial form.

It is thought that the invention and numerous of its attendant advantages will be understood from the foregoing description and it is obvious that numerous changes may be made in the form, construction and arrangement of the several parts without departing from the spirit or scope of the invention, or sacrificing any of its attendant advantages, the form herein described being a preferred embodiment for the purpose of illustrating the invention.

The invention is hereby claimed as follows:

1. A massaging unit comprising a relatively rigid applicator having a flat rectangular head portion with generally parallel, longitudinally extending lateral margins, a yieldable rubber massaging member secured to said head and providing a pair of ridges disposed longitudinally of said lateral side margins along a substantial length thereof, said ridges extending from said margins and being of substantially the same elevation throughout their lengths, their crests being substantially continuous and unbroken.

2. A unit as defined in claim 1 wherein said ridges are substantially parallel for a substantial longitudinal distance and have end portions adjacent one extremity of the rectangular head portion which converge toward each other.

3. A unit as defined in claim 1 wherein said ridges have an elevation not substantially greater than half their mean lateral width to provide a firm, resilient gum engaging edge supported by said rigid head portion.

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