

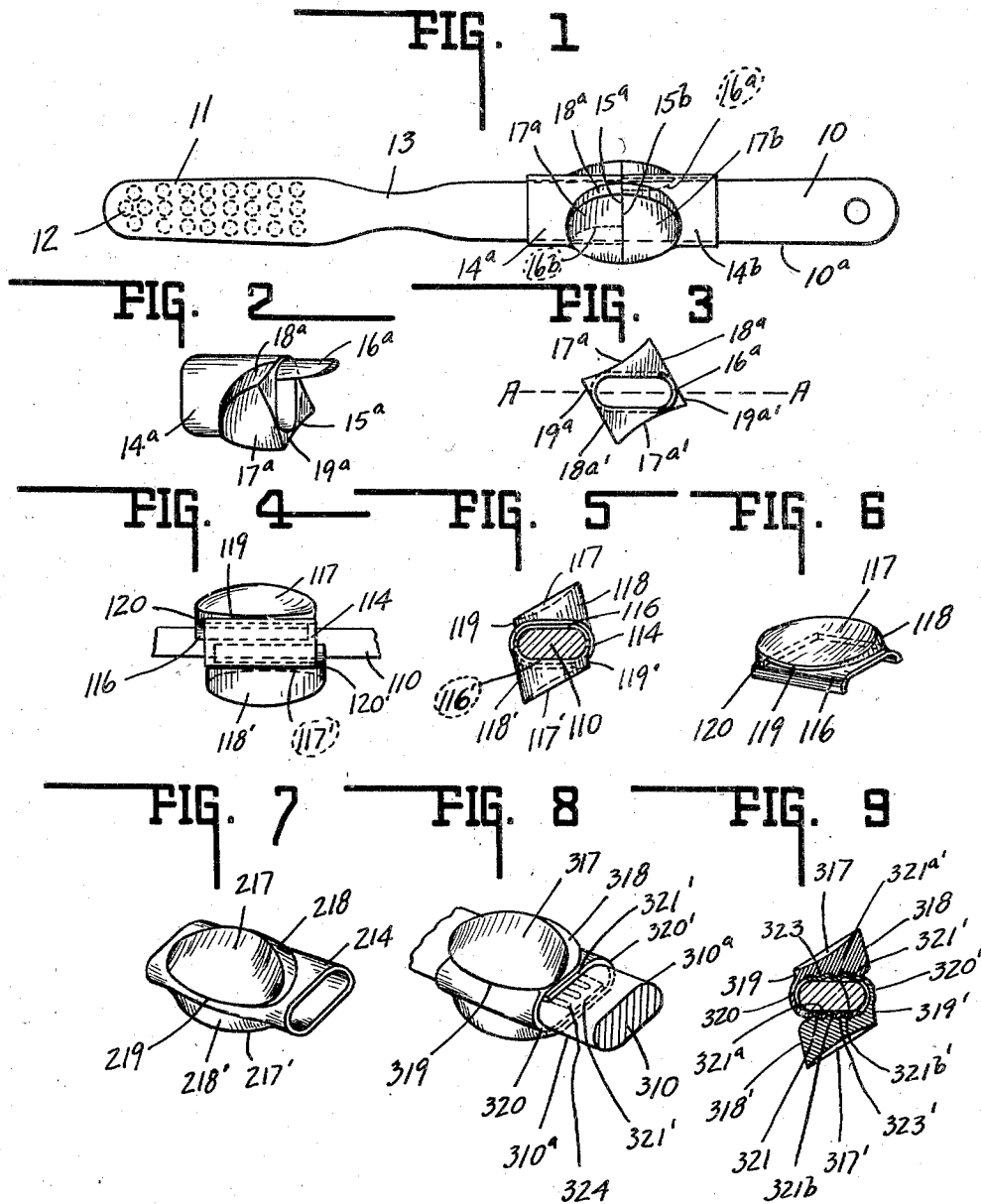
Nov. 7, 1939.

E. D. LUKENBILL

2,179,266

GRIP ATTACHMENT FOR BRUSH HANDLES

Filed Oct. 8, 1937



INVENTOR.

EMERY D. LUKENBILL.

BY

Lockwood Goldsmith & Galt

ATTORNEYS.

UNITED STATES PATENT OFFICE

2,179,266

GRIP ATTACHMENT FOR BRUSH HANDLES

Emery D. Lukenbill, Indianapolis, Ind.

Application October 8, 1937, Serial No. 167,953

6 Claims. (Cl. 15-145)

This invention relates to a gripping attachment for toothbrushes and the like.

The chief object of this invention is to provide an attachment which may be readily applied to a toothbrush so that the person using the brush has not only a better grip upon the same but will hold the brush in a predetermined manner so that proper brushing of the teeth will be effected.

10 The chief feature of the invention consists in providing an attachment which includes a bearing portion to facilitate gripping, which bearing portion has an inclined relation to the plane of the handle and which attachment is detachably associated with the handle and may be adjusted longitudinally thereof to the individual user's requirements.

Another feature of the invention consists in providing an attachment of this character with dual bearing portions which are positioned substantially in parallel relation or diametrically opposed with respect to the longitudinal axis of the brush handle so that both bearing portions may be engaged by the thumb and index finger of either hand for toothbrushing purposes.

The full nature of the invention will be understood from the accompanying drawing and the following description and claims:

Fig. 1 is a top plan view of the back of a toothbrush with one form of the invention applied thereto.

Fig. 2 is a perspective view of one of the complementary half sections comprising the attachment shown in Fig. 1.

Fig. 3 is an end view thereof.

Fig. 4 is a side view of a portion of the brush handle with a modified form of the invention mounted thereon, which form includes three parts.

Fig. 5 is an end view of the three parts in assembled relation.

Fig. 6 is a perspective view of one of the parts, to-wit, that including one of the bearing portions.

Fig. 7 is a perspective view of a one-piece embodiment of the invention.

Fig. 8 is a perspective view of a two-piece embodiment of the invention and a portion of the handle upon which the same is mounted, this embodiment as distinguished from that shown in Fig. 1 being of longitudinal separable character whereas that shown in Fig. 1 is of transverse separable character.

Fig. 9 is a transverse sectional view through

the invention shown in Fig. 8 and brush handle, with the former mounted on the latter.

In Figs. 1 to 3 of the drawing, 10 indicates the handle of a brush such as a toothbrush having a head portion 11 provided with bristle clumps, or the like 12, and connected by a reduced neck portion 13. Longitudinally slidable on the handle is a pair of complementary members of which portions 14a and 14b constitute continuations of each other when abuttingly aligned on the handle and which peripherally envelop the handle. Projecting from the adjacent edge 15a and 15b of each of the semi-attachment portions, are the tongues 16a and 16b, the tongues being telescopically mounted within and concealed by the adjacent peripheral portion and frictionally engaging the side portions 16a of the handle 10. This type of juncture and detachable connection not only permits separation between the semi-attachment portions but also permits adjustable mounting upon and ready separation from the handle.

Herein the attachment is provided with a bearing means and more or less in the shape of a butter-bean in outline and each portion of the attachment carries a complementary portion of the bearing portion. 17a indicates one half and 17b indicates the other half carried by the portions 14a and 14b, respectively. The bearing portion 17a includes one wall 18a and an opposite wall 19a. The bearing surface of portion 17a is positioned in inclined and offset relation relative to the central plane of the handle and designated by the letters AA and indicated by the dotted lines so designated in Fig. 3.

The attachment, diametrically opposite the bearing portion just previously described, is provided with a corresponding bearing portion but reversely positioned and the parts thereof are designated by prime numerals. The two planes of the two bearing surfaces of portions 17a and 17a'—see Fig. 3—are substantially parallel.

A modified form of the invention is illustrated in Figs. 4 to 6, inclusive. In these figures, 110 indicates the brush handle, 114 indicates the elongated sleeve which is of a flattened elliptical character, as shown clearly in Fig. 5, and which has a central bore or passage therethrough that is slightly greater than the cross sectional area of the handle 110. The bearing portion is indicated as having the bearing surface 117 and the adjacent surface 118 at one side and a smaller surface 119 at the opposite side.

Herein the bearing portion includes an extension 116 that is channel shaped and its exterior

corresponds to the interior surface of the tubular sleeve 114 and its interior more or less generally corresponds to the exterior surface of the brush handle 110. This portion 116 is connected to the bearing portion, indicated by 117, 118 and 119, at one end as indicated at 120. A pair of similar members such as illustrated in Fig. 6, is provided and these members are interposed between the handle 110 and the sleeve 114 from opposite ends and opposite sides of the latter, as shown in Fig. 4. In this figure, the upper bearing structure has its parts indicated by numerals of the one hundred series, while the lower bearing portion is indicated by similar numerals of prime character.

It will be apparent that when the two bearing portions with their anchoring channels are telescoped into the tubular sleeve mounted on the brush handle, the resultant arrangement is that all of the parts are readily associated together and are frictionally retained on the handle and may be readily detached therefrom by moving the bearing portions from the sleeve connection longitudinally of the handle and then removing the sleeve from the handle.

In Fig. 7 a modified form of the invention is illustrated. This form is entirely integral and numerals of the two hundred series indicate like or similar parts. For example, 214 indicates the elliptical like sleeve from which projects at opposite sides the bearing portions, the upper portion having the bearing surface 217, the adjacent larger surface 218 and the opposite smaller surface 219. Prime numbers indicate the opposed and similar bearing portion arrangement. This form of the invention may be made of rubber-like material, for example, so as to be resilient so that the same when telescoped upon the handle will frictionally retain itself in the adjusted position.

All of the forms of the invention shown in Figs. 1 to 6 as well as Figs. 8 and 9, to which reference will be had hereinafter, may be made of relatively rigid material, as distinguished from rubber material, although it is to be understood that the device shown in Fig. 7 may be formed of rigid material provided it is formed for a predetermined brush handle.

In Figs. 8 and 9 is illustrated a two-piece form of the invention distinguished from that illustrated in Figs. 1 to 3, inclusive, by the separation being of longitudinal character with respect to the attachment, whereas that shown in Figs. 1 to 3, inclusive, is of transverse character. Numerals of the three hundred series indicate like or similar parts. Herein 310 indicates the brush handle, 317 the bearing surface, 318 the enlarged surface adjacent thereto and 319 the opposed smaller surface. Oppositely positioned and opposed with respect thereto is the bearing surface 317' having the adjacent surfaces 318' and 319'.

There is provided as an extension from each of the surfaces 319 or 319', the somewhat angularly arranged portion having the curved shape 320 from which projects laterally the extension 321, the latter being herein shown corrugated as at 321a and 321b, both internally and externally corrugated, respectively.

The opposed bearing portion indicated by 317'—318'—319' includes a curved extension 320' similar to that shown at 320 and an extension 321' therefrom which is provided with internally and externally corrugated faces 321b' and 321a', respectively. It is to be understood that the inner surface 323 and 323' of the upper and lower

bearing portions is similarly corrugated. To adjust the device to the brush handle all that is required is to move each of the two members toward each other from opposite sides of the handle 310 so that each curved portion 320 or 320' engages the adjacent side edges 310a of the brush handle. When an approximate engagement is obtained, the corrugated extensions will so cooperate with the corrugated interior portions of the bearing portions that the two sections will be frictionally locked together and the attachment will be frictionally locked upon the handle. Separation of the attachment from the handle is effected by sliding the same longitudinally—see Fig. 1—from the handle portion 10 toward and into registration with the neck portion 13, whereupon the two portions may be readily disassociated by lateral separation in directions opposite that of the initial application.

As shown clearly in Fig. 8, the corrugations in the preferred form of this embodiment of the invention do not extend the full width of the extensions 321 and 321' but terminate short thereof, as indicated at 324.

Each embodiment of the invention herein illustrated has certain advantages over the others. However, each includes an enveloping arrangement which substantially envelopes the brush handle and in diametrical opposed relation there is provided bearing portions of approximate butternut or flattened oval outline, which bearing portions are substantially parallel to each other and which are inclined in the relationship indicated with respect to the plane A—A shown in Fig. 3, this being what may be termed the longitudinal plane of the handle.

While the invention has been described and illustrated in great detail in the foregoing description and drawing, respectively, the same is to be considered as illustrative only and not restrictive in character. These various modifications herein illustrated and described as well as others which will readily suggest themselves to persons skilled in this art, all are considered to be within the scope of the broad invention, reference being had to the appended claims.

The invention claimed is:

1. A gripping attachment for toothbrushes and the like having a substantially co-planar brush head and elongated flat-like handle, the bristles extending approximately transverse to the common plane, said attachment including a handle enveloping arrangement for detachable mounting thereon remote from the head and a thumb bearing portion providing a bearing area of a width greater than that of the handle and inclined relative to the common plane.

2. An attachment as defined by claim 1, characterized by the same including a plurality of separable portions.

3. An attachment as defined by claim 1, characterized by the enveloping arrangement and the thumb bearing portion having a detachable connection therebetween.

4. An attachment as defined by claim 1, characterized by a portion of the thumb bearing portion and a portion of the enveloping arrangement being integral in section, and the sections having a detachable connection therebetween.

5. A gripping attachment for toothbrushes and the like, having a substantially coplanar brush head and elongated flat-like handle, the bristles extending approximately transverse to the common plane, said attachment including a handle enveloping arrangement for detachable mount-

ing thereon remote from the head, a thumb bearing portion providing a bearing area of a width greater than that of the handle and inclined relative to the common plane, and another similar bearing portion and diametrically positioned relative to the first mentioned portion and similarly inclined, a portion of each thumb bearing and a portion of the enveloping arrangement being an integral section, the sections having a detachable connection therebetween.

10 6. A gripping attachment for toothbrushes and the like having a substantially coplanar brush head and elongated flat-like handle, the bristles extending approximately transverse to the com-

mon plane, said attachment including handle enveloping arrangement for detachable mounting thereon remote from the head, a thumb bearing portion providing a bearing area of a width greater than that of the handle and inclined relative to the common plane, and another similar bearing portion and diametrically positioned relative to the first mentioned portion and similarly inclined, said attachment being longitudinally divided into sections, such sections having a detachable connection therebetween.

EMERY D. LUKENBILL.