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2,190,277

DENTAL BRUSH

Filed April 10, 1937

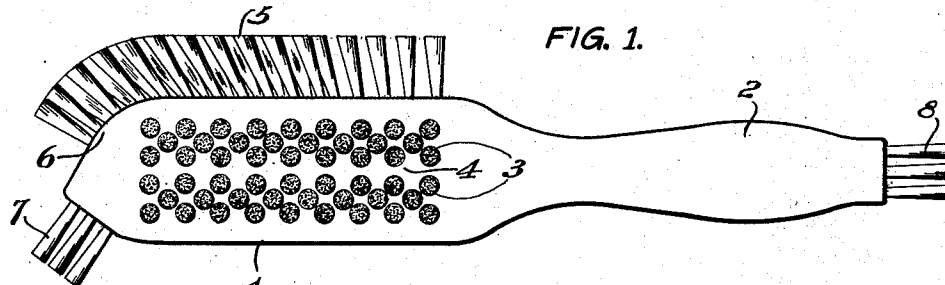


FIG. 1.

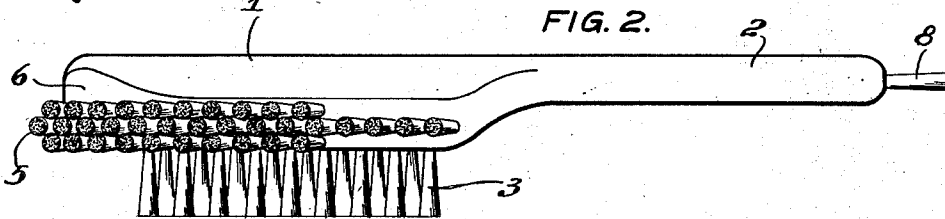


FIG. 2.

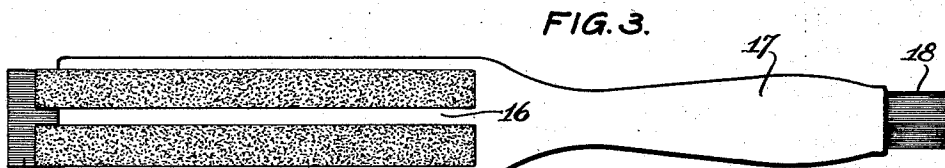


FIG. 3.

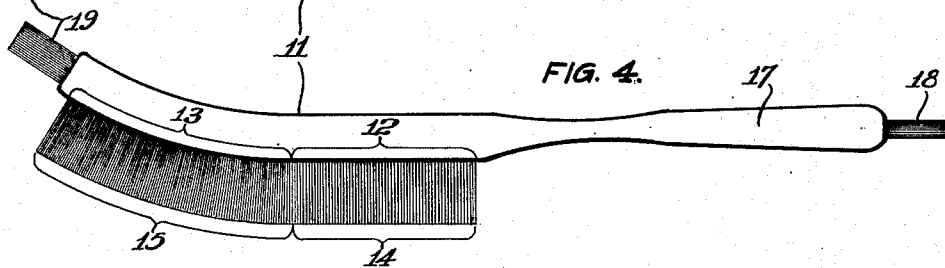


FIG. 4.

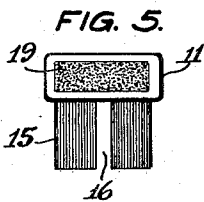


FIG. 5.

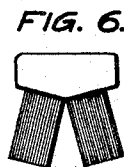


FIG. 6.

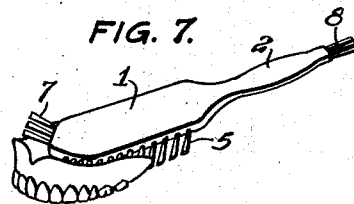


FIG. 7.

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UNITED STATES PATENT OFFICE

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DENTAL BRUSH

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Application April 10, 1937, Serial No. 136,123

6 Claims. (Cl. 15—167)

This invention relates to brushes of the bristle type and more particularly to a brush designed for use in cleaning and polishing dental plates and the like.

It is of the greatest importance, as is well known by all users thereof, that the utmost care be exercised in polishing and maintaining the cleanliness of dental plates in order to preserve the user's health and appearance. The accomplishment of this, however, is at best somewhat difficult due to the irregular and intricate designs of such plates.

With the foregoing in mind it is an object of this invention to provide a brush comprising a simple unitary structure of novel design which is capable of efficiently and effectively cleaning and polishing dental plates of various forms and shapes.

A more particular object is to provide a brush having a main rugged body of bristles which are more especially adapted for thoroughly cleaning the more exposed portions of a dental plate, a narrower body of bristles effectively arranged for cleaning the channels and side walls, and a still further body of bristles especially arranged for cleaning the more intricate crevices and interstices which can not be effectively reached by the first-mentioned bristles.

These and various other objects as well as the various other novel features and advantages of the invention will be apparent when the following detailed description is read in conjunction with the accompanying drawing of which Figs. 1 and 2 are plan and side views, respectively, of a recommended embodiment of the invention; Figs. 3 and 4 similar views of another embodiment; Fig. 5 an end view of the brush shown in Figs. 3 and 4; Fig. 6 an end view illustrating a modified form of mounting for the main body of bristles of the brushes shown in Fig. 1 and Fig. 3; and Fig. 7 a perspective view illustrating one of the ways of using the embodiment of the invention shown in Figs. 1 and 2.

Referring in detail to the drawing, and first more particularly to the embodiment of the invention illustrated in Figs. 1 and 2, the numeral 1 designates the main bristle block proper of the brush. Integral with this block and extending from one end thereof is an axially disposed handle 2, while on its lower face there is secured a main body of bristles 3 which are more especially adapted for brushing the teeth, the side walls of the plate, and other more prominently exposed areas, such bristles being both substantial and rugged to efficiently and effectively perform these

duties. To adapt these bristles to more effectively clean the teeth and the gum-engaging side walls of the plate, as well as the channels of the plate, they are divided into two axially disposed sections as shown, by a centrally extending spacing 4. This spacing, as is apparent, not only adapts these bristles to straddle the gum-engaging side walls of the plate, but also facilitates the cleaning thereof, as well as the cleaning of the channels of the plate, thus giving it somewhat the characteristics of two brushes.

For cleaning the channels of the plate and, in the case of narrow plates, the concave surface of the plate encircled by the teeth, a narrower body of bristles 5 is provided, being secured to one of the lateral sides of the bristle block and extended along a curved surface 6 constituting one face of the somewhat wedge-shaped end of the block opposite the handle. The latter portion of this bristle 5 is thus provided with a rounded exposure thereby more effectively adapting it for the cleaning of the curves and angles encountered in the aforementioned channels. The other end of the bristle 5 is made narrower as shown at 6a so as to adapt it to better reach the bottom of the channels of their ends where they are usually the narrowest. In addition to the latter body of bristles, a third and shorter row of bristles 7 is secured to the end of the bristle block opposite the handle in substantially the same plane as the last-mentioned bristles. This end of the bristle block as previously stated is formed in the shape of a wedge whereby these bristles are most effectively oriented for their efficient and advantageous use for the purposes intended. As will be observed, by making the bristles 7 narrow and the body thereof relatively short, they are very effectively adapted for cleaning the more concealed crevices and interstices of a plate, of which there are many, and which are difficult to clean.

A further set of bristles 8 similar to the bristles 7 may, as shown in this embodiment, be also provided and extended axially from the exposed end of the handle 2. While the purpose of such bristles is substantially the same as the bristles 7, they have an advantage thereover because they are more effectively located to permit the user to exercise greater pressure and more accurate application of the bristles due to his ability to grip the handle close to them.

Referring to the embodiment of the invention illustrated in Figs. 3, 4, 5 and 6, which constitutes a simplified form of the invention, the numeral 11 designates the bristle block of the brush which is provided on its lower face with a main hori-

zontally disposed bristle-supporting surface 12 and a curved bristle-supporting surface 13 which comprises a continuation thereof. On these adjoining surfaces there are mounted the main bristle sections 14 and 15, one for cleaning the more exposed surfaces and the other the curved surfaces and channels of the plate. As in the aforementioned embodiment, the bristle sections 14 and 15 are divided axially by a space 16 so as to more effectively adapt them to straddle the teeth and the gum-engaging side wall of a plate when they are used for cleaning those portions. Also in this embodiment of the invention, as in the one previously described, an axially disposed handle 17 is integrally secured to one end of the bristle block, and on its exposed end there is provided a narrow strip of bristles 18 for cleaning the more concealed crevices and interstices of a plate. It may also be provided with a short tuft of bristles 19 on its other end corresponding to the bristles 7.

To still more effectively adapt this latter form of the invention to the cleaning of the channels of a plate, the spaced parts of the main bristle sections 14 and 15 may be mounted as shown in Fig. 6 so that the two parts thereof flare outwardly at an angle to one another, giving them the effect of narrow individual brushes and so oriented as to permit them to be readily inserted in the channels of a plate. This alternate form of construction can be used for the main body of bristles 3 of the other embodiment shown in Figs. 1 and 2.

According to the provisions of the Patent Statutes, I have explained the principle and manner of practicing my invention, and have illustrated and described what I now consider to be its best embodiment. However, I desire to have it understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

I claim:

1. A tooth brush consisting of a bristle block having a handle integral therewith and projecting axially therefrom, a substantial bristle section on the lower face of said block presenting an exposed surface parallel with the longitudinal axis of the block and being divided into two laterally-spaced parts by a fully-visible centrally disposed longitudinally extending opening adapted to receive the teeth to be brushed, and another section of bristles in said block presenting a curved exposed surface.

2. A dental brush consisting of a bristle block having a handle integral therewith and projecting from one end and the other terminating in substantially the shape of a wedge the flared ends of which are rounded where they meet the lateral walls of the block, a major body of bristles presenting a substantially flat exposed surface on the bottom of said block, and a substantially nar-

rower body of bristles affixed to one of the lateral sides of said block and about the curved portion thereof and terminating in one of the tapered surfaces comprising the wedge-shaped end of the block, said narrower body of bristles decreasing in width adjacent its end on the side of said block.

3. A brush according to claim 2 having a third section of bristles secured to the tapered surface at the end of the block opposite the second-mentioned body of bristles and spaced therefrom.

4. A dental brush consisting of a bristle block having a handle integral therewith and projecting from one end and the other terminating in substantially the shape of a wedge the flared ends of which are rounded where they join the sides of the block, a main body of bristles consisting of two transversely spaced axially disposed sections on the bottom of said block adapted to straddle and receive the teeth, said transversely-spaced sections having a completely visible, relatively wide groove between them, a narrower body of bristles attached to one lateral side of said block and extending about the rounded surface at the end thereof opposite the handle, and a third body of bristles separated from the main and second-mentioned bodies of bristles and projecting at right angles from the tapered side wall comprising the end of the block opposite the second-mentioned body of bristles.

5. A dental brush comprising a flat bristle block, a handle integral with the block and projecting from one end thereof, a curved bristle block extension integral with the end of the block remote from the handle and curving away from the plane of the block surface, said curved bristle block extension being appreciably longer than said flat bristle block, and two longitudinally extending bristle sections of substantially the same height from the block surface secured to said flat bristle block and its curved extension whereby both flat and curved bristle surfaces are provided, said bristle sections being spaced apart transversely to form a tooth-straddling groove.

6. A dental brush comprising a flat bristle block having an integral handle projecting from one end thereof and an integral curved bristle block on the remaining end thereof and extending away from the plane of the first-named block surface, a tuft of bristles extending axially outwardly from the exposed end of said curved bristle block and forming a planar brush surface, two axially extending transversely spaced bristle sections carried by said flat bristle block to form a bristle surface parallel to said flat bristle block, and two bristle sections which are continuations of said first-mentioned bristle sections carried by said curved bristle block and presenting a curved bristle surface parallel to the curved bristle block.

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