

April 19, 1927.

F. L. GULLICKSON

1,625,537

TOOTHBRUSH

Filed May 25, 1926

Fig. 1.

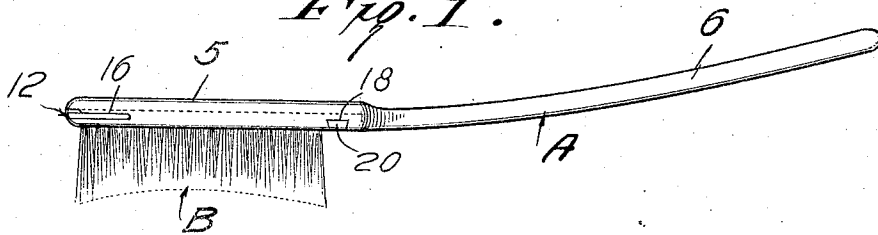


Fig. 2.

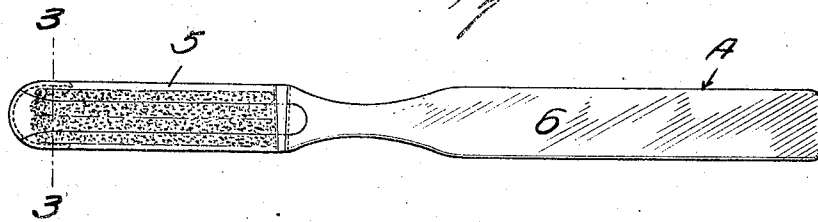


Fig. 3.

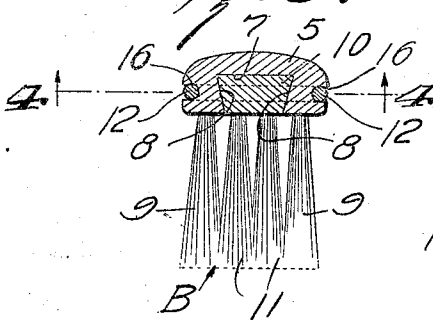


Fig. 4.

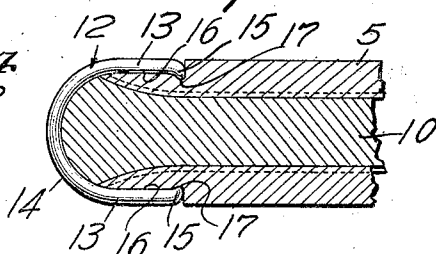
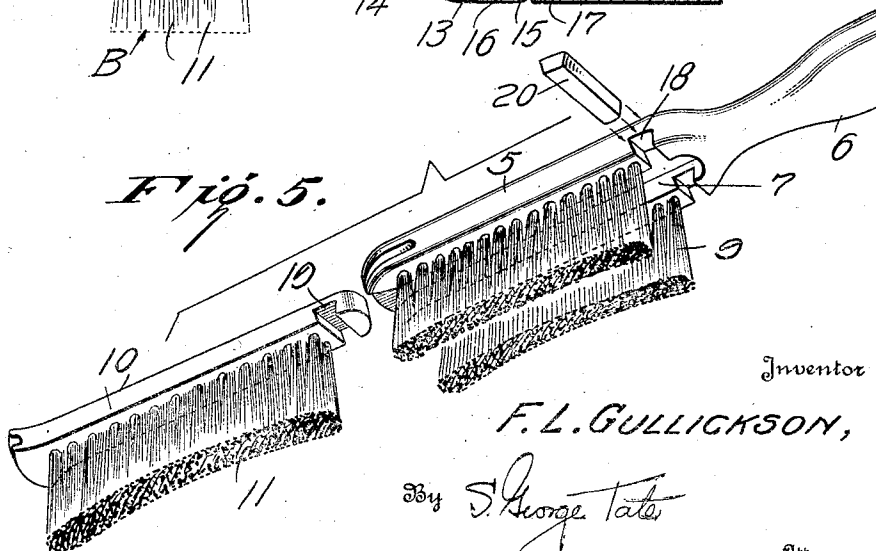


Fig. 5.



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TOOTHBRUSH.

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This invention relates to new and useful improvements in tooth brushes particularly, although my invention may from certain aspects be employed in connection with other types of brushes.

It is a well known fact that a tooth brush which is used regularly accumulates unused paste and debris at the base of the bristles. This condition shortens the period of usefulness of the brush and necessitates the brush being discarded before the bristles are worn to any depreciable extent.

The principal object of this invention is to provide a tooth brush which is so constructed that it may be readily and thoroughly cleaned.

Another object of my invention is the provision of a readily removable intermediate bristle carrying section whereby the bristles may be thoroughly cleaned each time after the brush has been used.

A further object of my invention is to provide the brush head with a removable bristle carrying section and to provide means for maintaining the section in its assembled relation and without any danger whatsoever of resulting in injury to the user.

With these and other objects in view which will more fully appear and the nature of the invention will be more clearly understood by following the description, the appended claims, and the several views illustrated in the accompanying drawings, in which

Figure 1 is a side elevation of a brush constructed in accordance with my invention,

Figure 2 is a bottom plan view thereof,

Figure 3 is a cross-sectional view taken on the line 3—3 of Figure 2,

Figure 4 is a detailed sectional view taken on the line 4—4 of Figure 3, and

Figure 5 is a perspective view showing the brush parts in disassembled relation.

Like numerals designate corresponding parts throughout the several figures of the drawings.

Referring to the drawings in detail, I have shown a tooth brush A which consists of a head 5 and a rearwardly extending and upwardly curved handle 6. Attached to the head 5 is a brush B and formed in the under face of the head 5 is a longitudinally extending seat 7 having undercut side walls 8—8. This seat

is disposed intermediate longitudinal rows of bristles 9—9 which are secured to the head. The seat extends rearwardly towards the handle but terminates short thereof.

Removably fitted within the seat 7 is a head-section 10 having inclined side walls for engagement with the side walls 8—8 of the seat 7. The removable section 10 carries one or more longitudinal rows of bristles 11.

In order to provide means for frictionally retaining the section 10 in its assembled position in the seat 7, I have provided a U-shaped spring metal clip 12 having spaced legs 13—13 and a connecting portion 14, the ends of the legs being intumed as at 15—15 to form anchoring feet. The clip 12 is seated in a groove 16 which is located at the forward end of the brush and is conjointly formed in the side walls of the head and in the forward end of the removable section 10, the rear ends of the groove being formed with seats 17—17 for receiving the seat 15. The diameter of the groove 16 is substantially equal to although preferably a little greater than the diameter of the clip 12 so as to insure the clip from projecting beyond the side faces of the head and beyond the end of the section. Thus the clip will not interfere or injure the mouth of the user of the brush. The clip will be frictionally retained in position by reason of the frictional engagement between the seat 15 and the walls of the seat 17, and consequently the removable section 10 will be firmly held in its assembled relation. When, however, it is desirable to remove this section 10, the clip 12 may be easily withdrawn by the fingers of the user and the section subsequently removed. This construction permits of the bristles 9 and 11 being readily cleaned and all accumulations which have been deposited around the bristles adjacent the head removed therefrom.

In order to provide a positive locking means for the removable section 10, I may employ a transversely disposed locking pin which has interlocking engagement between the head and the section. To this end, I have provided the under face of the head, at a point in rear of the bristles, with a transverse seat 18 which intersects the longitudinal seat 7. The side walls of the seat 18 are undercut and this seat registers

with a seat 19 of corresponding shape formed in the under face of the rear end of the removable section 10. A locking pin 20 having a cross-sectional shape corresponding to the grooves 18 and 19 is adapted to be slidably positioned and frictionally held within the grooves 18 and 19, thereby positively locking the section 10 against relative longitudinal movements.

It will be understood that the U-shaped clip 12 may be used without the transverse locking pin 20, or the transverse pin 20 may be used without the U-shaped clip 12, or both the U-shaped clip 12 and the transverse locking pin 20 may be used together.

It is of course to be understood that the details of structure and arrangements of parts may be variously changed and modified without departing from the spirit and scope of my invention.

I claim:

1. In a tooth brush, the combination with a head and a handle extending therefrom, the head being formed in its under face with a centrally disposed longitudinal seat having undercut side walls, rows of bristles secured to the head on opposite sides of the seat, and a removable head section slidably mounted in said seat for longitudinal movement and provided with a row of bristles extending longitudinally of said section, the side walls of the outer end of the head and the outer end of the head-section being conjointly formed with a groove, and a U-shaped clip frictionally seated in said groove to retain said section in its assembled position in said seat.

2. In a tooth brush, the combination with a head and a handle extending therefrom, the head being formed in its under face with a centrally disposed longitudinal seat having undercut side walls, rows of bristles secured to the head on opposite sides of the seat, and a removable head section slidably mounted in said seat for longitudinal movement and provided with a row of bristles extending longitudinally of said sections, the side walls of the outer end of the head being respectively formed with seats, and a U-shaped clip positioned around the outer end of the head and having inturned feet for frictionally engaging in said seats to retain said section in its assembled position.

3. In a tooth brush, the combination with a head and a handle extending therefrom, the head being formed in its under face with a centrally disposed longitudinal seat having undercut side walls, rows of bristles secured to the head on opposite sides of the seat, and a removable head section slidably mounted in said seat for longitudinal movement and provided with a row of bristles extending longitudinally of said section, the side walls of the outer end of the head and the outer end of the head-section being conjointly formed with a groove, said side walls being also formed with seats and a U-shaped clip seated in said groove and having inturned feet for frictionally engaging with said seats to retain said section in its assembled position.

In testimony whereof I hereunto affix my signature.

FRANCIS L. GULLICKSON.