

J. J. FITZ-GIBBON.
TOOTHBRUSH.
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1,346,536.

Patented July 13, 1920.

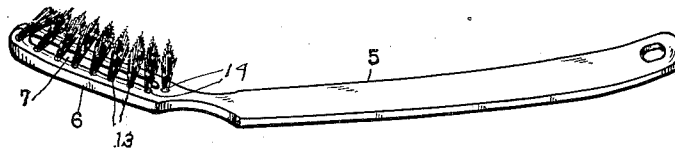


FIG. I

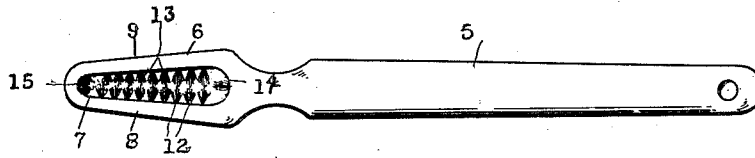


FIG. II

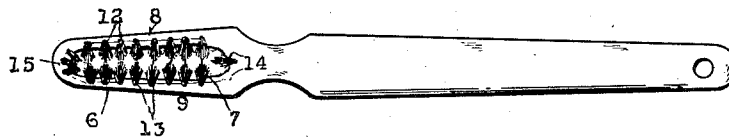


FIG. III



FIG. IV

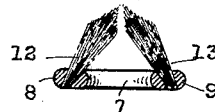


FIG. V

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TOOTHBRUSH.

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To all whom it may concern:

Be it known that I, JOHN J. FITZ-GIBBON, a citizen of the United States of America, and resident of Holyoke, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Toothbrushes, of which the following is a full, clear, and exact description.

10 This invention relates to improvements in tooth brushes, and its leading object is to provide a tooth brush having bristles facing in the direction of movement or the line of force of the brush against the teeth, whereby a scaling action will be produced upon the surfaces of the teeth by the ends of the bristles or tufts.

Another object of the invention is to provide a brush with a relatively large opening formed in the brush back or head and bristles associated therewith to provide a pocket for holding the dentifrice or sterilizing medium employed.

25 A still further object of the invention is to provide a brush which will clean the spaces between the teeth the surfaces facing the tongue, the surfaces adjacent the cheeks and permit of the convenient application of a dry dentifrice for the treatment of pyorrhea.

30 With the above and other objects in view the invention relates to certain new and useful combinations, constructions and arrangements of parts, clearly described in the following specification, and fully illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of my improved tooth brush.

40 Fig. 2 is a rear view showing the filler opening in the brush back or head.

Fig. 3 is a face view showing the arrangement of the converging bristles.

Fig. 4 is a detail transverse sectional view.

45 Fig. 5 is a sectional view taken across the brush-head.

Referring to the accompanying drawings illustrating my invention, 5 designates a handle of suitable construction which is provided at its forward end with a brush head or back 6. This brush head or back 6 is formed with a relatively large oblong filler opening 7 disposed longitudinally thereof and extending through said head or back.

55 The brush head or back 6 is thus provided with similar side portions 8 and 9 and end

portions 10 and 11 in which the bristles or cleansing elements are embedded. In the side portion 8 a series of brush tufts or clusters 12 are arranged with their inner ends suitably embedded or anchored to the portion 8 while a series of brush tufts or clusters of bristles 13 are embedded or suitably anchored in the side portion 9. The series 12 and the series 13 converge inwardly so that their tips are but slightly spaced from each other. On the portion 10 a brush tuft 14 is embedded at its inner end and extends inwardly toward the tips of the series 12 and 13 and are sharply inclined relative thereto so that the tips of said tufts 14 will engage the lingual surfaces of the teeth. On the portion 11 a cluster of tufts are embedded at their inner ends or otherwise anchored in place and said tufts project toward the outer end of the brush head and are preferably of the same length as the tufts of the series 12 and 13.

The bristles are so disposed on the brush head as to provide a dentifrice holding chamber or pocket and the opening 7 permits of the deposition of the dentifrice in said chamber or pocket through the back of the brush head. This feature is found exceedingly valuable in the treatment of pyorrhea, in which the use of a dry dentifrice is recommended.

In using my improved brush the tips of the various tufts or clusters of bristles project against the surfaces of the teeth in such manner that a thorough cleansing of the various surfaces of the teeth is accomplished.

After a person has cleaned his or her teeth it is important that the bristles be sterilized immediately and by depositing a small amount of the dentifrice in the filler opening the bristles and the brush head can be rendered sterile and hot water can be applied from the bases or roots of the tufts to displace any particles of food or decayed matter accumulated thereon.

It is seen, therefore, that my improved brush insures a more efficient cleansing action and a more satisfactory distribution of the dentifrice against the teeth during the cleansing action as the dentifrice will naturally flow against the tips of the bristles when the same are brushed against the teeth, whereby a self-feeding action results.

Having described my invention I claim:

1. A tooth brush having a head formed with a longitudinal opening extending

transversely thereof and provided on each side of said opening with a longitudinal row of brush tufts, each row being inclined toward the longitudinal median line of the
5 brush head, the ends of the brush tufts being disposed adjacent to each other and of V-shaped formation.

2. A tooth brush having a head provided on each side with a longitudinal row of
10 brush tufts, each row being inclined toward the longitudinal median line of the brush head, the ends of the brush tufts being disposed adjacent to each other and having end

portions of V-shaped formation, there being no tufts between the inclined longitudinal
15 rows of tufts, said head being formed with a longitudinal opening located between the rows of tufts and said head being provided with a tuft located near the opposite ends of said opening and inclined toward each
20 other.

Signed by me in presence of a subscribing witness.

JOHN J. FITZ-GIBBON.

Witness:

F. J. McKAY.