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1,688,581

N. GLASSMAN

TOOTHBRUSH

Filed Sept. 9, 1927

Fig. 1.

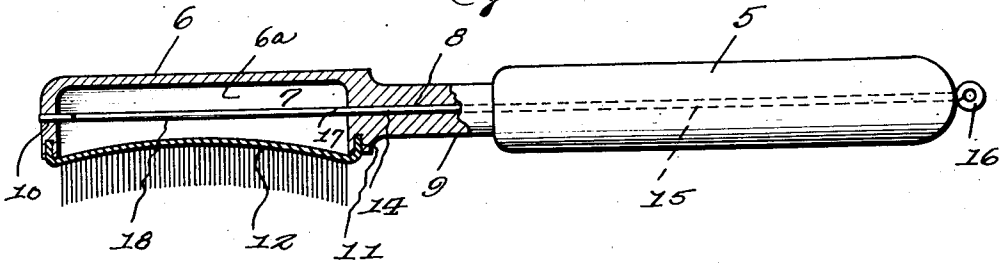


Fig. 2.

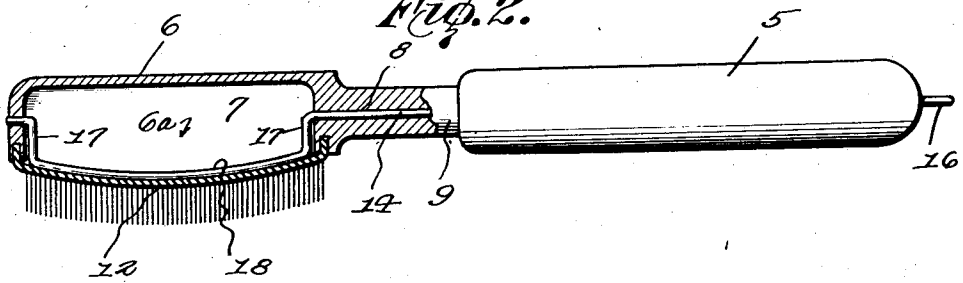


Fig. 3.

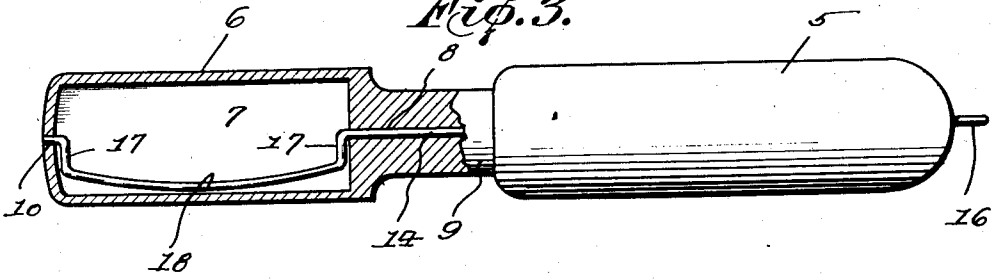
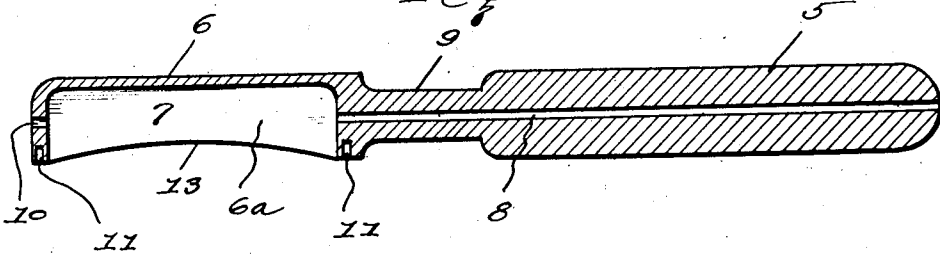


Fig. 4.



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TOOTHBRUSH.

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This invention relates generally to cleaning implements, but specifically has to do with improvements in toothbrushes.

An essential object of the instant invention is to provide an implement of the above-mentioned character which is adapted to conform to the exterior and interior formation of the structure of the teeth-setting in the oral cavity of an individual, in order that ordinarily inaccessible parts may be reached during the cleansing operation and further that the gums themselves may be generously massaged in order to bring out a good circulation of blood therein; all of which resulting in a healthy condition of the teeth and the oral cavity as a whole.

Another object of the invention resides in the provision of means for positioning the bristles in arcuate formation prior to the entry of the brush into the mouth, and for further varying the arcuate formation from substantially convex to concave, as desired.

With these general objects in view, together with others which will appear as the description proceeds, the invention resides in the novel formation and arrangement of parts, all as will be described more fully hereinafter, illustrated in the drawings, and particularly pointed out in the claims.

In said drawings:

Figure 1 is an elevation of my improved toothbrush, the head portion and bristle-carrying member being shown in section.

Fig. 2 is a similar view thereof, but illustrating the bristle-carrying member disposed in a different position.

Fig. 3 is a plan view thereof, partly in section; and

Fig. 4 is a longitudinal, central sectional view of the brush with the bristle-carrying member and its operating means removed.

As previously pointed out, I hope to develop a novel and unique brush for cleaning the teeth, which may be preformed at its working area to conform to the general positioning of the teeth in the mouth of an individual. To this end, I have designed the working part of the brush so that it may be arcuately disposed to form a concavity when the exterior portions of the teeth are to be cleansed, and within the structure I further provide means for altering the position of the bristles so that the same may be convexed in order to conform to the interior arrangement of the teeth. The advantages derived are obviously apparent, since remote portions of the

several teeth and similarly the gums may be reached and acted upon in order to promote a healthy condition of the mouth.

In one of the exemplary forms of my invention, depicted in the drawings, the numeral 5 designates the handle portion of the brush, which may be integrally joined by the head portion 6, or separately formed as practice may determine.

As clearly shown in the drawings, said head portion 6 is hollow to define a cavity 7 closed upon all sides but open at the bottom, for a purpose presently to be described, and further that said handle portion 5 is provided with a central longitudinal channel 8, which extends through the shank portion 9 of said head portion 6 where it enters the cavity 7. In addition to this channel I also provide an opening 10 in the front wall of the head portion, the same being aligned with said channel 8. The construction just described will be readily understood upon inspection of Fig. 4, wherein it will also be observed that the bottom portion of said head 6, surrounding said cavity 7 is recessed, as indicated at 11, to receive the bristle-carrying member 12, having a flexible body portion, thus closing the cavity 7.

The construction shown in Fig. 4 also illustrates that the depending sides 6* of said head portion 6 are arcuately disposed, as indicated at 13, and it is apparent that the affixing of the marginal edges of said bristle-carrying member 12 in the recesses 11, as by cementing for instance, will cause said member to assume the concave position noted in Fig. 1. Thus the bristles are in a position to operate on the exterior lay-out of the teeth and gums. However, my invention proceeds one step farther in that I have provided means for altering the position of said bristles from the concave disposition shown in Fig. 1 to the convex form shown in Fig. 2 and this means comprises a wire member 14 having one of its extremities loosely engaged in said opening 10 and its other outer portion 15 extending through said channel 8 where it emerges and carries a thumb-piece 16, the intermediate portion of said wire member being laterally bent as indicated at 17, to present an outwardly bowed portion 18, between said lateral bends.

When the bristle-carrying member 12 is in the position shown in Fig. 1, said bowed portion 18 is disposed horizontally, but when it is desired to change the position of said mem-

ber 12 said bowed portion 18 is partially rotated downwardly by operating the thumb-piece 16 and through this movement said member 12 is pressed outwardly to assume the position shown in Fig. 2. And conversely said member 12 may be restored to the position depicted in Fig. 1, by a partial rotation of said bowed portion 18. It thus appears that through an exceedingly simple expedient I may double the working value of a brush.

In view of the resiliency of the bristle-carrying member 12, a gentle yet satisfactory massaging may be imparted to the teeth or gums, and this feature is especially valuable in cases wherein tender or sore gums are to be treated.

While the present is a disclosure of the preferred embodiment of the invention, it is to be understood that the invention is not limited thereto, as various changes in the minor details of construction, proportion and arrangement of parts may be resorted to without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. A brush of the character described comprising a head portion, a handle associated with said head portion, presenting concave side portions, a resilient bristle-carrying member secured to said head portion and assuming the concave disposition of said side portions and manually operable means rotatably borne by said handle for changing said member from its concave position to a convex position.

2. A brush of the character described comprising a handle having a longitudinal bore, a head portion associated with said handle, said head portion being hollow to present an open portion and having an opening aligned with said bore, in its front wall, a flexible bristle-carrying member secured to the open portion of said head portion and being normally concaved and means rotatably mounted in said bore of said handle and having a bowed portion for flexing with said member.

In testimony whereof I affix my signature.

NATHAN GLASSMAN.