Nov. 26, 1929. A. G. DALMAS 1,736,996

TOOTHBRUSH

Filed Jan. 9, 1928

FIG. 1.

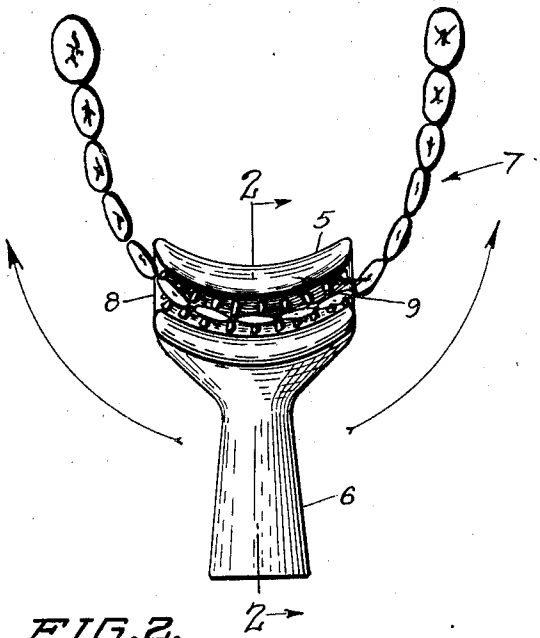


FIG. 2.

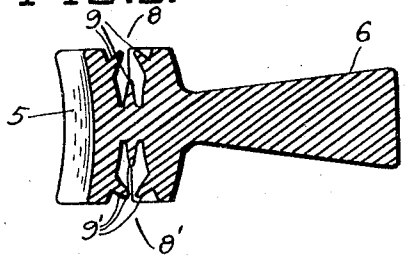


FIG. 3.

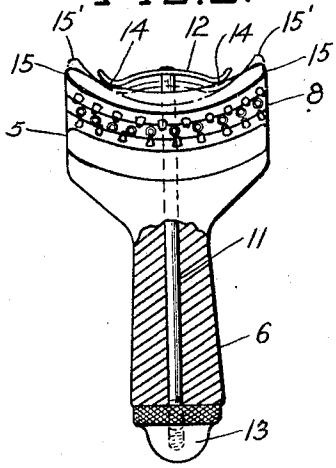
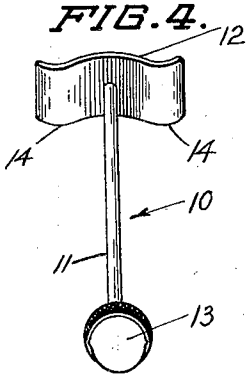


FIG. 4.



INVENTOR.
Amadeus G. Dalmas
BY M. C. Frank
ATTORNEY

Patented Nov. 26, 1929 1,736,996

UNITED STATES PATENT OFFICE

AMEDEUS G. DALMAS, OF OAKLAND, CALIFORNIA

TOOTHBRUSH

Application filed January 9, 1928. Serial No. 245,409.

My invention relates to toothbrushes and more particularly to brushes of this character for the cleaning of the upper and lower sets of teeth simultaneously.

Among the objects of my invention are the provision of a toothbrush adapted to frictionally engage the front and back sides of the two sets of teeth simultaneously, and in addition, to engage the edges and crevices about the teeth and between them.

Another object of the invention is the provision of a brush of the character described which may be bitten into and moved laterally to accomplish the cleaning of the teeth.

A further object is to provide an improved brush of the character set forth having a mouth member with a configuration which will assume the curvature of the teeth when bitten into.

The invention possesses other advantageous features, some of which, with the foregoing, will be set forth at length in the following description where I shall outline in full that form of the invention which I have selected for illustration in the drawings accompanying and forming part of the present specification. In said drawings I have shown one form of my invention, but it is to be understood that I do not limit myself to such form, since the invention, as expressed in the claims, may be embodied in a plurality of forms.

Referring to said drawings:

Figure 1 is a plan of my invention diagrammatically imbedded in a set of teeth.

Fig. 2 is a central longitudinal section through the toothbrush per se.

Fig. 3 is a plan, partly in section, of the toothbrush having an adjusting element therethrough to change the curvature of the mouth member; and

Fig. 4 is a perspective view of the adjusting element shown in Fig. 3.

Referring in detail to the drawings of the invention, the toothbrush preferably consists of a unitary structure of yieldable flexible material such as molded rubber, for example, having a mouth member indicated by the numeral 5 and a handle or operating member 6.

The mouth member is of a configuration and design adapted to be bitten into to imbed the teeth 7 therein. Provision is made for the imbedment of the teeth in the said mouth member by, preferably, a pair of opposed channels or bifurcations 8 and 8′, of a curvature and depth to substantially approximate the curvature and length of a normal set of teeth 7. I prefer that the teeth shall be snugly imbedded in the channels and in addition, for greater efficiency, I provide a series of homogeneous studs 9 and 9′ projecting angularly from the side and bottom walls of the channels in staggered relation. These studs 9 and 9′ assure a more intimate contact of the mouth member 5 with the crevices, edges and spaces about the teeth.

The handle 6 preferably is formed integral with the mouth member and projects therefrom perpendicularly with respect to the plane passing through the center of the opposed channels 8 and 8′. The said channels are preferably alike in all respects except being opposed one to the other.

In some cases I may wish to mechanically change the curvature of the mouth member to accommodate sets of teeth of abnormal curvature; this I accomplish by the provision of an adjusting element 10, preferably of metal material, having a shank 11 to which is secured at one end a plate 12 and at the other end is threadedly attached a tightening or loosening device such as the knurled cap 13. The plate may contact the inner surface of the mouth member along its spaced ridges 14, the effect being that when the cap is turned to tighten the assembled element in the toothbrush, the outer edges 15 of the mouth member will flare inwardly as indicated at 15′ in Fig. 3, thus changing the normal curvature of the mouth member as well as narrowing the width of the channels.

It is obvious that the operation of the invention is most simple—simply bite into the toothbrush to any degree desired and move it to and fro laterally to accomplish the cleaning and polishing of the teeth and gums, any chosen dentifrice being used as an aid in the operation.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains, and while I have described the principle of operation, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made, when desired, as fall within the scope of the appended claim.

Having thus described my invention, I claim as new and desire to secure by Letters Patent of the United States the following:

A toothbrush comprising an arcuate mouth member of resilient material normally providing a curved channel for the reception of the teeth of a set, a handle member for said mouth member secured medially thereto and extending transversely of said channel and of the axis of curvature thereof, an adjusting element extending longitudinally through said handle and transversely through the mouth member, one end of said element engaging said mouth member at points thereof radially opposite spaced points in the arc of curvature of the channel, and means engageable with the other end of said element and the free end of said handle for effecting the engagement of said element with the mouth member at said points with an adjustably variable degree of force.

In testimony whereof, I affix my signature.

AMEDEUS G. DALMAS.