

July 13, 1926.

P. C. P. BOOTY

1,592,292

TOOTHBRUSH

Filed Dec. 15, 1924

Fig. 1.

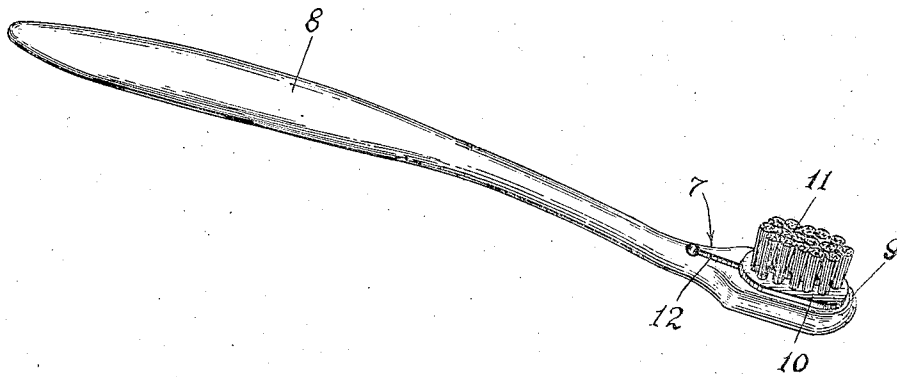


Fig. 2.

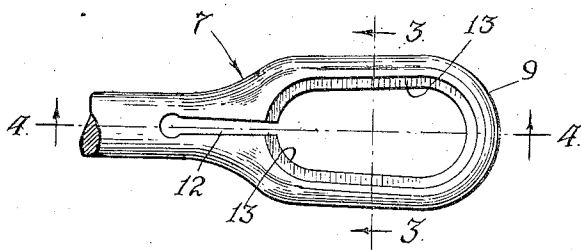


Fig. 3.

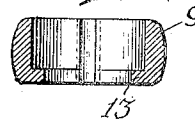


Fig. 4.

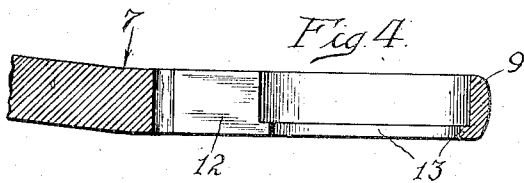
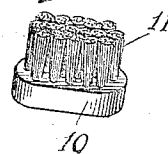


Fig. 5.



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UNITED STATES PATENT OFFICE.

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TOOTHBRUSH.

Application filed December 15, 1924. Serial No. 755,881.

My invention relates to improvements in a toothbrush of the type wherein the brush is made separable from the handle or holding member therefor whereby upon the brush wearing down so that it is no longer effective or becoming soiled, it may be discarded and a new one substituted.

One object of my invention is to provide an improved one piece holding member for the brush of such construction that it may be manufactured expeditiously at low cost and entirely, if desired, from a relatively inexpensive moldable material such as celluloid, pyralin or the like.

Another object of my invention is the provision of a holding member for the brush of such construction that the member will take a frictional grip upon the edges of the back of the brush, which will be ample to hold the brush properly when handled or in use when the latter is inserted thereinto, without the necessity of employing any special fastening devices for that purpose.

The invention consists in the novel constructions and arrangements to be hereinafter described and claimed for carrying out the above-stated objects and such other objects as will appear from the following description of a certain preferred embodiment illustrated in the accompanying drawings, wherein—

Fig. 1 is a perspective view of a toothbrush construction embodying the principles of my invention;

Fig. 2 is a top plan view, on an enlarged scale, of a fragmentary portion of the brush holding member;

Figs. 3 and 4 are sectional views taken on the lines 3—3 and 4—4, respectively, of Fig. 2; and

Fig. 5 is a perspective view of a brush adapted to be inserted in my improved brush holding member.

Like characters of reference designate like parts in the several views.

Referring now to the drawings, the brush holding member 7 is preferably integrally formed with and on one end of a handle member 8. The brush holding member is formed with a loop 9 which is arranged to surround the edge portions of both sides and one end and also a substantial portion of the other end of the back 10 of the brush 11. The loop is formed so that the

opening therein is somewhat smaller than the back of the brush; consequently the loop has to be sprung, opened or made larger when the back of the brush is pressed into it. To permit of the necessary expansion of the loop to receive the back of the brush, the end of the loop adjacent the shank of the holding member is interrupted which is preferably accomplished by providing the holding member 7 with a longitudinally extending slot 12 which opens into the adjacent end of the loop. The loop at its bottom side is preferably formed with an inwardly projecting perimetrical shoulder 13 to form a seat for the back of the brush and serving also for strengthening the loop transversely thereof. The brush holding member 7 and its handle 8 may be formed of any suitable material having sufficient strength and elasticity; the parts are preferably formed, however, of a moldable material such, for example, as celluloid, pyralin or the like. The tufted back member may be of any preferred construction.

In order to give the requisite strength to the handle portions at opposite sides of the slot 12 so as to enable them to grip the back effectively, I have made the slot 12 substantially equal in length to the width of the loop and the handle portions at the open end of the slot are comparatively wide and heavy relative to the other parts thereof whereby the handle portions do not require any external reinforcement for enabling them to function as described.

The brush is readily pressed into the loop against the shoulder 13. The inherent tendency of the loop to spring back into its initial shape results in the inner sides of the loop taking a reliable frictional grip on the edges of the back of the brush which is ample to hold the brush securely when the device is handled and when the brush is in use on the teeth. When a brush becomes unfit for further use, it may be removed readily by pressing on the back of it and a new one may then be substituted. It will be apparent to those skilled in the art that the construction of my improved brush holding member is such that it may be expeditiously manufactured with a minimum of forming and finishing operations and of a material such as celluloid, pyralin or the like. Such materials are highly desirable because they are relatively inex-

pensive, readily obtainable on the market, possess sufficient strength and elasticity for the purpose, and are easy to handle in carrying out the manufactured operations.

5 Furthermore, the finished article is, light in weight, attractive in appearance, requires no special treatment or care to maintain it in a sanitary condition and produces no unpleasant sensation should it strike the
10 teeth while they are being brushed.

I do not intend to limit my invention to the details of construction shown and described, except only in so far as certain of the appended claims are specifically so
15 limited, as it will be obvious that modifications may be made without departing from the principles of my invention.

I claim:

1. A toothbrush comprising a handle pro-
20 vided at one end with a non-metallic socket member in the form of a closed resilient loop, said socket member being further provided with a slot opening into the loop to render the loop expansible, a tufted back
25 member adapted to enter the loop at one face thereof and being slightly larger than said loop to tension the loop when pressed into operative position therein, and stop

means for limiting the movement of the back member into the loop, the loop when
30 placed under tension by the insertion of the tufted back being adapted by itself to frictionally hold the tufted back firmly in position therein.

2. A toothbrush comprising a handle pro-
35 vided at one end with a non-metallic socket member in the form of a closed resilient loop, said socket member being further provided with a slot opening into the loop to render the loop expansible, a tufted back
40 member adapted to enter the loop at one face thereof and being slightly larger than said loop to tension the loop when pressed into operative position therein, and stop
45 means in the form of an inwardly projecting perimetrical shoulder extending continuously along the sides and the closed end of the loop for limiting the movement of the back member into the loop and reinforcing the loop, the loop when placed un-
50 der tension by the insertion of the tufted back being adapted by itself to frictionally hold the tufted back firmly in position therein.

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