

March 5, 1929.

S. B. FRIEDLAND

1,704,564

TOOTHBRUSH

Filed March 16, 1928



Fig. 1.

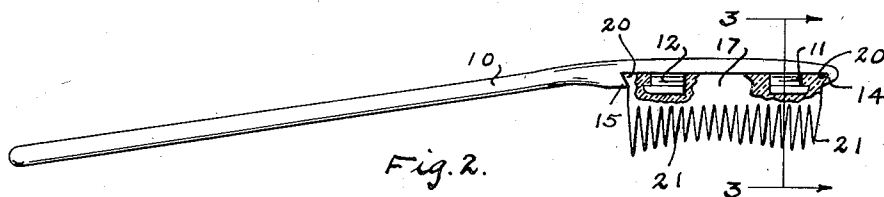


Fig. 2.

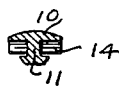


Fig. 3.

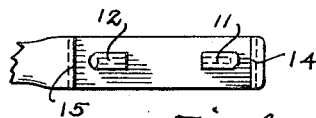


Fig. 4.

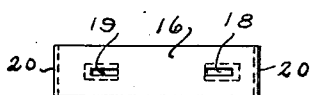


Fig. 5.

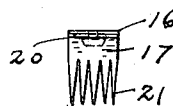


Fig. 6.

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TOOTHBRUSH.

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This invention relates to a toothbrush having a detachable head and particularly to the means for retaining the head on the brush handle.

5 I am aware that there are several forms of brushes having detachable heads, but I find in my practice that in such brushes heretofore made the head is easily pulled off in accidentally striking the end of the brush
10 against a tooth to the annoyance of the patient, and furthermore that there is not sufficient material through the center of the brush head to afford the proper resilience as well as stability of the head.

15 I overcome these faults by the structure as herein described in reference to the accompanying drawing, in which—

Fig. 1 is a top plan view of a toothbrush embodying my invention;

20 Fig. 2, a fragmentary side elevation of the brush;

Fig. 3, a vertical transverse section through the brush head back only on the line 3—3 in Fig. 2;

25 Fig. 4, an underside plan view of the brush head back;

Fig. 5, a top plan view of the brush head; and

Fig. 6, an end elevation of the head.

30 Like characters of reference indicate like parts throughout the several views in the drawing.

I form a handle 10 with a head end having a forward lug 11 and a rear lug 12 each
35 depended from the underside plane surface.

These lugs 11 and 12 are spaced apart and each has a shoulder formed therearound at its lower end. The shoulder on the lug 11 projects laterally from the lug from both
40 sides and from the front but does not project from the rear end of the lug. The shoulder on the rear lug 12 projects from both sides and the rear end but does not project from the front end. The lugs 11 and 12
45 therefore present smooth parallel faces toward each other.

Across the forward end of the head end is a downwardly and rearwardly extended projection 14 spaced ahead of the lug 11 and
50 terminating by its lower end substantially on the line of the shoulder on the lug. A similar projection 15 extends downwardly and forwardly from the rear end of the head end of the handle 10 toward the shoulder of
55 the rear lug 12.

A brush head 16 is formed of resilient rubber to have a body 17 in which is molded sockets 18 and 19 of substantially the shape of the lugs 11 and 12 and the shoulders thereon. A plurality of rubber teeth 21 depend
60 integrally from the body. A lip 20 extends from each end of the body from the top. The head 16 is attached to the handle 10 by pressing the body 17 against the lugs 11 and 12 to force the lugs down into the sockets 18
65 and 19 to permit the shoulders of the lugs to enter into the enlarged lower ends of the sockets in the head. At the same time, the lips 20 are entered and pressed under the projections 14 and 15.

70 The head 16 is then effectively retained on the handle and can not be removed until intentionally and forcibly pulled off.

It is to be noted that through the center of the body 17 there is a full cushion of
75 rubber behind the teeth 21 and between the lugs 11 and 12. The projections 14 and 15 aid materially in retaining the head 16 in place since they cooperate with the lug shoulders in gripping the ends of the head against
80 the handle surface.

While I have here described my invention in the form now best known to me, it is obvious that the structure may be varied without departing from the spirit of the invention and I, therefore, do not want to be limited to the precise form as shown and described nor any more than may be necessitated by the following claims.

I claim:

80 1. A tooth brush comprising a handle, a pair of lugs spaced apart thereon, shoulders laterally projected from the sides of the lugs, a projection extended from the handle toward the rear end of one of said lugs, an
85 elastic brush head having sockets formed therein to engage over said shoulders, and a lip from said head adapted to be received under said projection.

2. A tooth brush comprising a handle, a
100 pair of lugs spaced apart on one end of the handle, a shoulder extended laterally from the two sides and forward end of the forward lug of said pair, a shoulder extended laterally from the two sides and rear end
105 of the rear lug of said pair, a projection extended downwardly and forwardly toward the shoulder extending from the rear end of the rear lug having a space therebetween, a brush head having sockets therein to en- 110

gage over said shoulders, and a lip from the end of said head adapted to be received and retained under said projection.

3. A tooth brush comprising a handle, a
5 lug thereon, a shoulder extended forwardly from the outer end of the lug, a guard lip extending downwardly and rearwardly from the handle end toward said shoulder, a second lug spaced from the first lug, a shoulder
10 extended rearwardly from the rear end of

the second lug, a projection extended downwardly and forwardly toward the rear end of the second lug, an elastic brush head having sockets in its back to engage over said two lugs and shoulders, and a lip at each
15 end of the brush to be engaged under said guard lip and said projection respectively.

In testimony whereof I affix my signature.

SOLOMON B. FRIEDLAND.