

C. E. CARROLL.
TOOTH BRUSH.
APPLICATION FILED MAY 27, 1913.

1,133,930.

Patented Mar. 30, 1915.

Fig. 1.

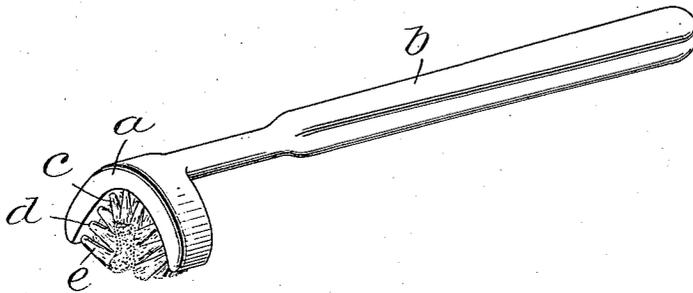
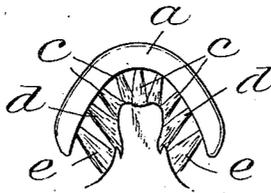


Fig. 2.



WITNESSES

Samuel E. Wade
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UNITED STATES PATENT OFFICE.

CHARLES E. CARROLL, OF NEWPORT, ARKANSAS.

TOOTH-BRUSH.

1,133,930.

Specification of Letters Patent. Patented Mar. 30, 1915.

Application filed May 27, 1913. Serial No. 770,113.

To all whom it may concern:

Be it known that I, CHARLES E. CARROLL, a citizen of the United States, and a resident of Newport, in the county of Jackson and State of Arkansas, have invented an Improvement in Tooth-Brushes, of which the following is a specification.

Much attention has been given to the prevention of diseases of the gums. Such diseases usually attack the gums at points subjected to comparatively little friction of mastication and where the ordinary tooth-brush is not effective for rubbing or massaging. Food and other foreign substances tend to lodge within the free margin of the gums at such points and cause at first a slight irritation, but when allowed to remain, inflammation may set in and certain chemical changes may take place, thus forming the hard scale known as tartar, which adheres to the neck of the tooth and becomes a permanent irritant to the gums. If the irritation be sufficiently prolonged, an ulcerated condition may result leading to destruction of the gums and the consequent loss of the teeth. It is therefore eminently desirable to provide a brush adapted to prevent such lodgment of foreign substances within the free margin of the gums, and to this end I have devised the brush hereinafter described and claimed.

The details of construction are illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of the brush, and Fig. 2 is a front view of the head thereof.

The head *a* is curved so that it is approximately semicircular in form and it is attached at the middle of its length to a handle *b* and arranged in a plane at right angles thereto. There are three groups of tufts of bristles, indicated, respectively, by letters *c*, *d*, and *e*. The tufts *c* are comparatively short and occupy the central portion of the brush-head *a*. The bristles *d*, which are adjacent laterally to the bristles *c*, are considerably longer, and their opposite points or edges are cut off on a slope so that they are almost parallel. The next or outer bristles *e* are preferably slightly shorter than the bristles *d*. The working ends of the outer bristles *e* are cut off upon a slight curve and at a considerable angle with the adjacent bristles *d*, so that said bristles *e* are

adapted to work upon the gums, cleaning and massaging them, while the other bristles work on the teeth alone.

It will be seen, particularly by observation of Fig. 2, that the bristles *c*, *d*, and *e* are so located and inclined as to be practically concentric, the central ones being so located as to work on the biting surfaces of the teeth, while the laterally adjacent bristles *d* are so arranged as to strike the surface of the teeth at an angle and to readily enter the free margin of the gum at a point between their inclined outer ends, while the outermost lateral bristles *e* work upon the lower portions of the gums, thus massaging and cleaning them. My improved brush is thus entirely effective for the object aimed at, namely, for the removal of foreign substances and the massaging of the gums at the point where it is most necessary to the end in view.

To sum up the matter, it may be said that by the arrangement of the tufts of bristles, the gums are massaged and their free margins are cleaned during the ordinary operation of brushing the teeth; also, that by the specific and described arrangement and angles of the tufts of bristles to each other and to the teeth, the roots of the latter and the adjacent portions of the gums are thoroughly scrubbed. Further, the tufts of bristles being of different lengths and the lateral ones being cut across angularly at their free ends, they pass over the teeth in such way as to protect the larger ones from undue friction and at the same time thoroughly clean the smaller ones.

I claim:—

The improved tooth-brush having an approximately semi-circular head and provided with tufts of bristles projecting inwardly toward each other and also downwardly, the outer ends of those tufts which are located at the extremities of the head being cut off upon a slight curve and at an angle to the working ends of the adjacent bristles, whereby they are adapted for cleaning and massaging the gums, while the other bristles work on the teeth, as shown and described.

CHARLES E. CARROLL.

Witnesses:

C. W. SPRIGG,
CLAY CHILDERS.