E. R. ELLIOTT.

TOOTHBRUSH.

APPLICATION FILED JUNE 14, 1920.

1,417,811. Patented May 30, 1922.

Fig. 1.

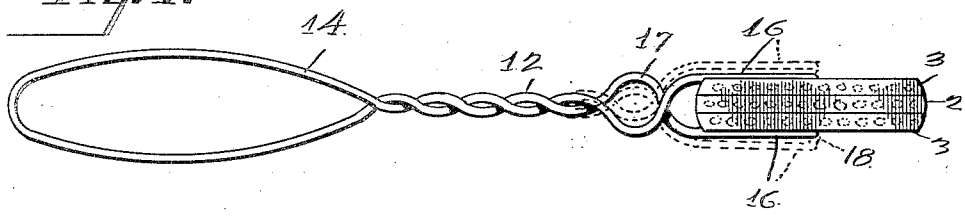


Fig. 2.

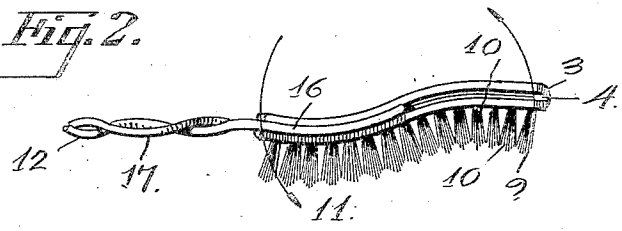


Fig. 3.

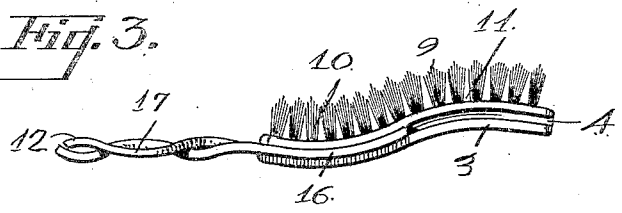
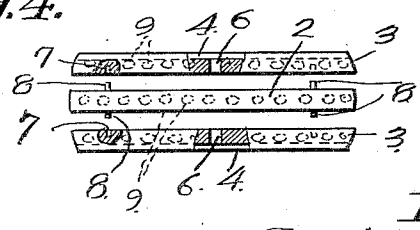


Fig. 4.



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UNITED STATES PATENT OFFICE.

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TOOTHBRUSH.

1,417,811. Specification of Letters Patent. Patented May 30, 1922.

Application filed June 14, 1920. Serial No. 389,763.

To all whom it may concern:

Be it known that I, EDWARD R. ELLIOTT, a subject of Great Britain, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in a Toothbrush, of which the following is a specification.

My invention relates to improvements in tooth brushes, wherein a sectional body portion is rotatably and detachably mounted upon a handle whereby said brush portion may be reversed end for end to present or expose an unworn portion of the tooth brush after the opposite end has been worn.

The primary object of the invention is to provide an improved tooth brush having improved means for reversing the brush portion end for end to present a new portion containing unworn bristles.

A further object of the invention is to provide a new and improved tooth brush of the character described having a sectional brush portion whereby rows of bristles may be disassembled for cleansing purposes.

A still further object is to provide a new and improved tooth brush of the character described having reversed arcuate portions whereby the inner concaved as well as the outer convexed portion or sides of the teeth may be effectively reached.

I accomplish these and other objects by means of the improved device disclosed in the drawings forming a part of the present specification wherein like characters of reference are used to designate similar parts throughout the said specification and drawings, and in which—

Fig. 1, is a plan view of the brush, disclosing the manner in which the handle is pivotally and detachably connected thereto;

Fig. 2, is a view disclosing the reversed arcuate form of the brush in one position; and

Fig. 3, is a similar view disclosing the reversed position of said brush; and

Fig. 4, is a broken detailed view of the brush showing the sections thereof separated, and the means for retaining alignment of said sections.

Referring to the drawings the numeral 1, is used to designate a tooth brush body composed of longitudinally disposed inner and outer sections 2 and 3 respectively.

The outer sections 3, are each provided with longitudinally disposed grooves 4, in the sides thereof and transverse apertures 6, arranged approximately midway within the grooves 4, the purpose of which will hereinafter be more fully set forth.

Apertures 7, are arranged adjacent the ends of the outer sections 3, and in the inner surfaces of said sections.

Dowel pins 8, or the like are arranged transversely on the central section 2, and arranged to engage the apertures 7, of the outer sections to align said sections when assembled.

Each section is provided with a row of bristles 9, so that when the sections are separated each row of bristles is rendered accessible for clamping purposes.

The brush portion may be composed of reversed arcuate sections 10, and 11, respectively as best disclosed in Figs. 2, and 3, of the drawings, the purpose of which will hereinafter be more fully set forth.

A suitable twisted wire handle 12, has an enlarged portion 14, adapted to provide a convenient hand grip and spring forked members 16, terminating in inwardly extending lateral projections 18, arranged to normally rotatably engage the apertures 6, within the grooves 4, in the sides of the outer sections 3, of the brush portion of said tooth brush, the longitudinal portions of said forked members 18, engaging said grooves 4, to retain alignment of the brush with the handle when in operation.

The handle 12, is provided with reversed or overlapping portions 17 which, when pressed together, operate to separate the forked members 18, and thereby disengage the forked members 18, from the grooves 4, and the lateral extensions 18, from the apertures 4.

In operation the tension of the spring forks 16, operating in conjunction with the dowel pins 8, and apertures 7, therefore operates to normally retain assemblage of the several sections 2, and 3, of the brush, and also to retain said forked members 16, within the grooves 4, to normally retain operative alignment of the brush portion with the handle 12.

The concaved arcuate portion or end if the brush is used to brush the outer convexed portion of the teeth after which the overlapping portions 17, of the handle 12, are pressed together a sufficient degree to disengage the members 16, from the grooves 4,

but retaining rotatable engagement of the lateral extensions 18, with the apertures 6, whereby said brush may be rotated end for end to bring the convexed portion 11, of the bristles 9, outermost which end may then be used to brush the inner or concaved portion or sides of the teeth.

To disassemble the several sections the overlapping portions 17, of the handle 12, are pressed together to entirely disengage the forked members 16, and lateral extensions 18, thereof from the grooves 4, and apertures 6, therein thereby removing the handle from the brush.

The several sections may then be easily disassembled and cleaned and again assembled and replaced between the forked spring members 16, of the handle 12, the tension of said members 16, operating to normally retain assemblage of said sections.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

A tooth brush comprising a brush portion having reversed arcuate portions; and a handle rotatably connected to the brush portion and arranged to permit end for end rotation of said brush on said handle, said brush and handle having means for normally retaining said brush in fixed position relatively to said handle.

In witness whereof I hereunto set my signature.

EDWARD R. ELLIOTT.