April 1, 1930. R. E. RAWSON 1,752,393

TOOTHBRUSH

Filed May 26, 1928

Fig. 1.

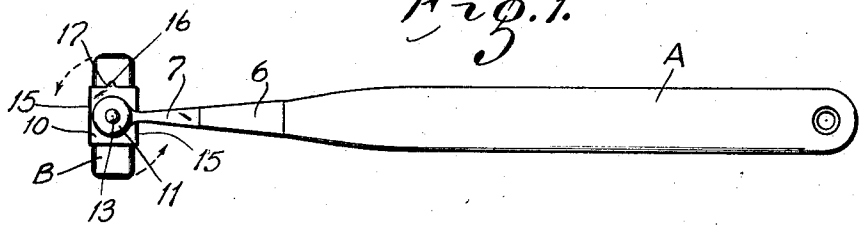


Fig. 2.

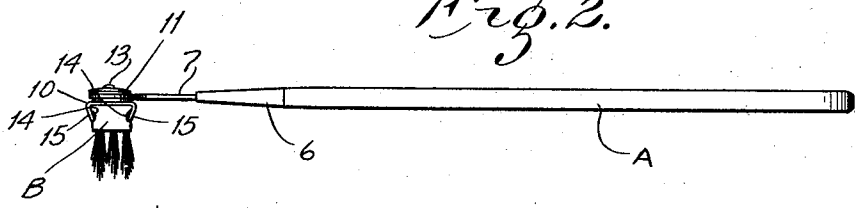


Fig. 3.

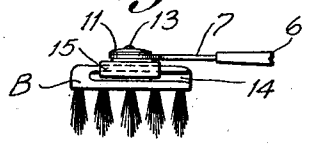


Fig. 4.

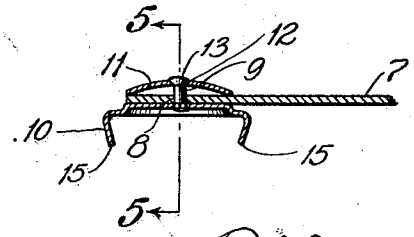


Fig. 6.

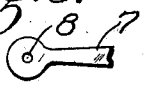


Fig. 5.

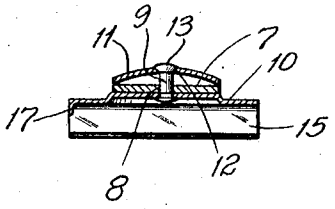
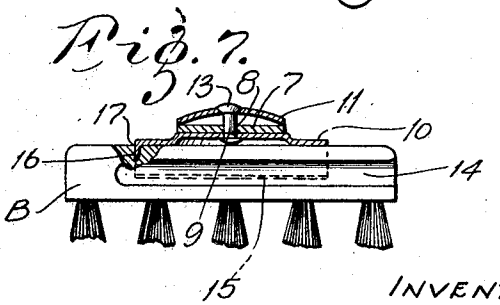


Fig. 7.



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UNITED STATES PATENT OFFICE

RALPH E. RAWSON, OF ST. LOUIS, MISSOURI

TOOTHBRUSH

Application filed May 26, 1928. Serial No. 280,689.

My invention relates to improvements in tooth brushes and has for its object to provide a clamp-carrying handle, in the clamp of which brushes or pads of various kinds and degrees of stiffness or resiliency may be interchangeably mounted. Said clamp is provided with a friction mounting, to adjust the pad or brush carried thereby at any desired angle with relation to the handle. The mounting of said clamp is so effected as to hold said clamp with sufficient rigidity to avoid accidental change of its angulation while in use.

An object of my invention is to reduce the cost of manufacture of the pad or brush to a minimum by so conforming the clamp and the back of the pad or brush that no extraneous mounting means need be mounted on or secured to such backs: thus reducing the cost of re-fills (either pads or brushes) to the minimum.

Drawings

In the drawings—

Fig. 1 is a rear plan view of a tooth brush embodying my invention.

Fig. 2 is a side elevation of the same.

Fig. 3 is a fragmental side elevation thereof, the brush being turned into alinement with the handle.

Fig. 4 is an enlarged longitudinal midsectional view of the clamp employed, with its friction mounting.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a plan view of the looped terminal 7.

Fig. 7 is the view shown in Fig. 5 with the block B in place.

Description

As illustrated, the handle A is provided with a ferrule 6 from which the looped terminal 7 extends, provided with the eye 8 for the reception of the pin 9.

A channeled clamp 10 is centrally and rigidly mounted on the base of the pin 9, and rests snugly upon one face of the looped terminal 7.

Upon the opposite face of said looped terminal 7 is the convex spring disk member 11, having at its center the countersunk aperture 12 for the reception of the head 13 of the pin 9. By this construction the clamp 10 is given a friction mounting by which it is held firmly at any desired angle to the handle A, until the user wished to alter that angle, when such alteration is effected by manually twisting the clamp 10, or the block B held thereby.

The block B is the back of either a pad or brush, and may be provided with grooves 14—14 on its sides, for engagement with the pair of jaws 15—15 of the clamp 10. The block B is provided with an indentation 16 which is adapted to receive a depending tooth 17 formed in the clamp 10, thus holding the block B against slipping from its proper position in the clamp 10.

Various modifications of the structure shown may be accomplished without departure from my actual invention as defined in the appended claims.

I claim—

1. A tooth brush comprising a handle having a flat terminal loop; a brush-holding clamp mounted upon one face of said loop; a spring-washer mounted upon the opposite face of said loop; and a pin having a head resting upon the outer face of said washer, said pin extending through said washer and loop, and fixedly mounted in said clamp.

2. A tooth brush comprising a handle having a relatively flat terminal end, a spring clamp on the end formed substantially U-shaped in cross-section to provide edge flanges directed from the under side of the end, a pin extending through the end and engaging the body of the clamp to swivelly support the same, a convex spring washer carried by the pin on the other side of the terminal end for drawing the clamp into positive frictional engagement with the end to resist swiveling movement thereof, and a brush detachably mounted in the clamp, and means for positively retaining said brush on the clamp to prevent accidental removal or displacement thereof.

3. A tooth brush comprising a handle having a relatively flat terminal end formed with an opening therein, a clamp on the end

formed substantially U-shaped in cross section and having an elongated body, the edge flanges directed from the under side of the end and slightly bent inwardly toward each other, a pin extending through the opening in the end and engaging the body of the clamp intermediate its ends to pivotally support the same on the end, a convex spring washer carried and normally retained under sustained tension by the pin on the other side of the terminal end and having a countersunk portion receiving the head of the pin for drawing the body of the clamp into frictional positive engagement directly with the under side of the end to resist pivotal movement thereof irrespective of reasonable wear, and a brush having a back portion slidable to position between the flanges of the clamp and frictionally engaged thereby to resist displacement, and means for positively retaining said brush in the clamp to prevent accidental removal or displacement thereof.

In testimony whereof I have hereunto affixed my signature.

RALPH E. RAWSON.