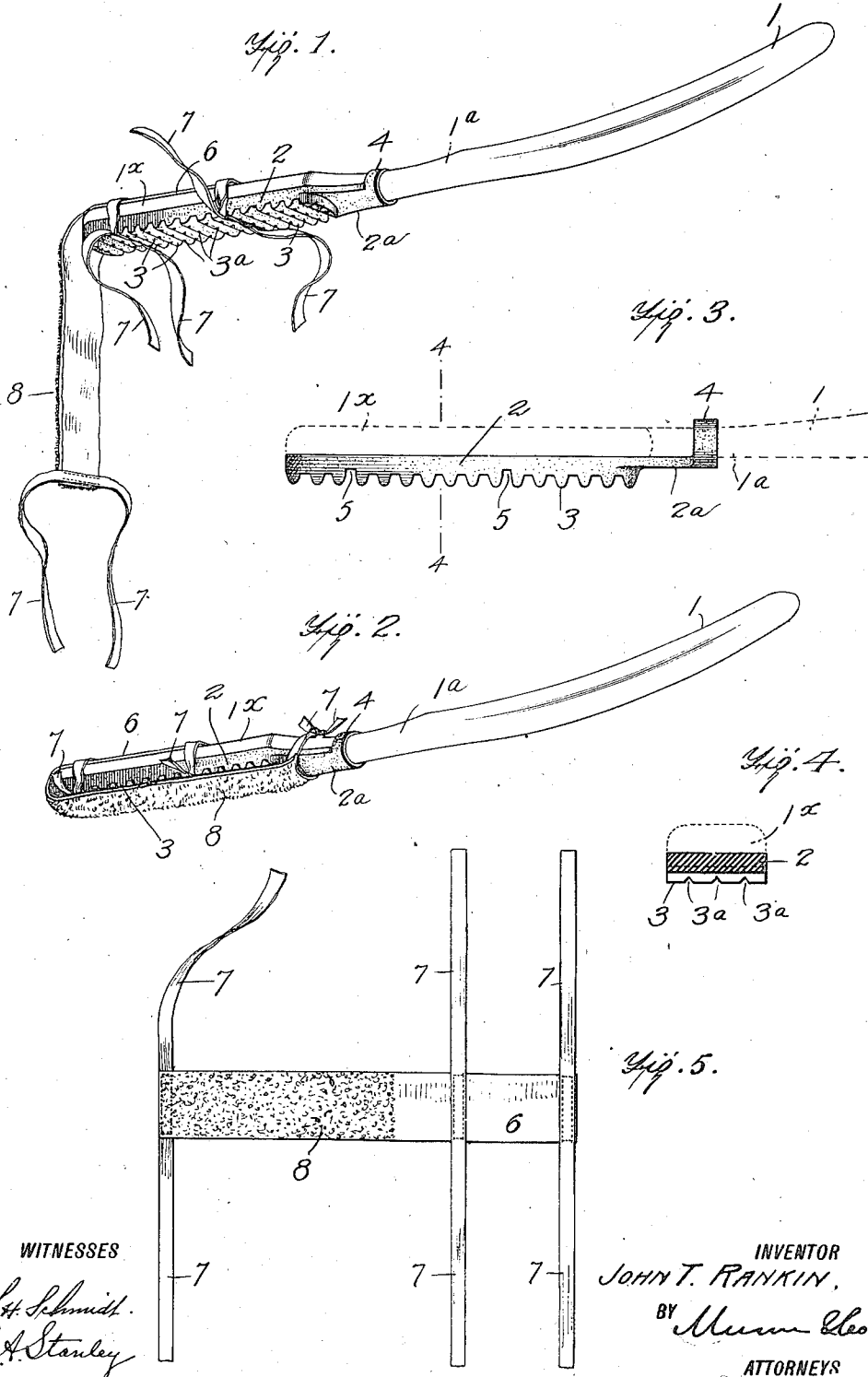


J. T. RANKIN.
TOOTH BRUSH.
APPLICATION FILED JUNE 13, 1912.

1,063,214.

Patented June 3, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

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TOOTH-BRUSH.

1,063,214.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed June 13, 1912. Serial No. 703,467.

To all whom it may concern:

Be it known that I, JOHN T. RANKIN, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have made certain new and useful Improvements in Tooth-Brushes, of which the following is a specification.

My invention relates to improvements in tooth brushes, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide a device which may be attached to a handle of any brush whose bristles have become worn by merely cutting off the bristles and securing the attachment in the manner hereinafter described.

A further object of my invention is to provide a removable attachment which may be frequently changed if necessary, thereby providing a brush which is desirable from a sanitary standpoint.

A further object of my invention is to provide a brush which may be used in circumstances which would preclude the use of a fiber brush such as where the mouth or lips of the user are sore, or where he has tender or bleeding gums.

A further object of my invention is to provide a sanitary fabric brush attachment with a frictional surface differing from that of the bristle brush.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which—

Figure 1 is a perspective view of a handle showing the attachment partly secured thereto, Fig. 2 is a perspective view showing the attachment secured to the handle, Fig. 3 is a side view of the rubber base portion of the attachment, Fig. 4 is a section along the line 4—4 of Fig. 3, and Fig. 5 is a plan view of the fabric band, which forms the outer portion of the attachment.

In carrying out my invention I make use of a handle 1 such as the handle of an ordinary bristle brush in which the bristles have become worn or have pulled out. The remaining bristles are cut off flush with the

surface of the handle, and it is now ready for receiving the attachment which forms the subject of the present invention.

The base portion of the attachment consists preferably of a rubber strip 2, which is formed with transverse ridges 3 on its under side. These ridges may be provided with longitudinal grooves 3^a (see Fig. 4). The base portion is provided with an extended portion 2^a which terminates in an integral band or ring 4. The side opposite the ribbed side is smooth and is arranged to fit against the handle in the manner shown in Fig. 1. The band 4 is resilient and may be stretched so as to slip over the end of the handle and to encircle the reduced portion 1^a of the handle. On the ribbed side of the base portion 2 are grooves 5.

The fabric portion of the attachment consists of a tape or webbing 6 of a width to conform to the width of the rubber base over which it is to be used and of sufficient length to extend from the front of head 1^x at the reduced portion of the handle around the end of the head and partly back on the opposite side of the head. The web 6 is provided with transverse cords or strings 7 by means of which it may be secured to the head. On the front surface of the web for a distance corresponding to the rubber base is woven or sewed a raised or tufted fabric 8, which constitutes the frictional or brush surface of the attachment.

The manner of securing the fabric is best shown in Fig. 1. The web or tape is first placed on the back of the head 1^x and the bands or strings 7 are tied around the rubber base 2, these bands passing through the grooves 5. The end of the web bearing the tufted fabric 8 is now brought around so as to lie adjacent to the base portion as shown in Fig. 2. The end string or band is then tied around the reduced portion of the head in the manner shown in Fig. 2.

From the foregoing description of the various parts of the device the operation thereof may be readily understood.

The brush is used in the ordinary manner, the fabric portion 8 serving to take the place of the bristles. The fabric does not irritate the gums as the bristles do, and yet is highly efficient for the purposes for which it is intended, being superior to the bristles for polishing the surfaces of teeth. The rubber

attachment acts as a retaining base to keep the fabric attachment from slipping. The transverse ridges give a degree of flexibility to the overlying fabric attachment, while at the same time they are very durable, since they have a comparatively heavy base. The spaces between the ridges as well as the longitudinal grooves 3^a provide means for a circulation of air and for the drainage of liquids, thus insuring rapid drying of the fabric brush attachment. This is highly desirable from a sanitary standpoint. The fabric portion may be easily removed and quickly replaced with a fresh fabric portion, thus giving a practically new brush whenever desired.

I claim:—

1. The combination with a tooth brush handle having a head, of a resilient base portion arranged to lie next to the head, said base portion being transversely corrugated and being provided with longitudinal grooves crossing the corrugations on the side opposite the head, means for securing said base portion to said head, a fabric portion arranged to cover the corrugated base, and means for securing said fabric portion to said head.

2. The combination with a tooth brush handle having a head, a rubber base portion having a flat surface on one side arranged to abut the head and being provided with ridges and grooves on its opposite side, said base having an extended portion arranged to encircle the handle, a fabric strip arranged to lie adjacent to the corrugated side of the base portion, said fabric being tufted on the opposite side of the strip from said base portion, said strip having a portion arranged to extend around the end of the head and backwardly over a portion of the head,

and means for securing said strip and said base portion to said head.

3. The combination with a tooth brush handle having a head, a rubber base portion having a flat surface on one side arranged to abut the head and being provided with ridges and grooves on its opposite side, said base having an extended portion arranged to encircle the handle, a fabric strip arranged to lie adjacent to the corrugated side of the base portion, said fabric being tufted on the opposite side of the strip from said base portion, said strip having a portion arranged to extend around the end of the head and backwardly over a portion of the head, means for securing said strip and said base portion to said head, said means comprising a plurality of bands or strings secured to the strip and arranged to encircle the head and the base portion, and bands at one end of said tufted portion arranged to encircle the handle.

4. The combination with a tooth brush handle having a head, a rubber base portion having a flat surface on one side arranged to abut the head and being provided with transverse ridges and grooves on its opposite side and longitudinal grooves intersecting said transverse grooves, means for securing said base to said handle, a fabric strip arranged to lie adjacent to the corrugated side of the base portion, said fabric being tufted on the opposite side of the web from said base portion, said strip having a portion arranged to extend around the end of the head, and means for securing the end of said extended portion of the strip.

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Witnesses:

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