March 4, 1924.

1,485,519

R. O. NELSON

ATTACHMENT FOR TOOTHBRUSHES

Filed July 30, 1923.

Fig. 1.

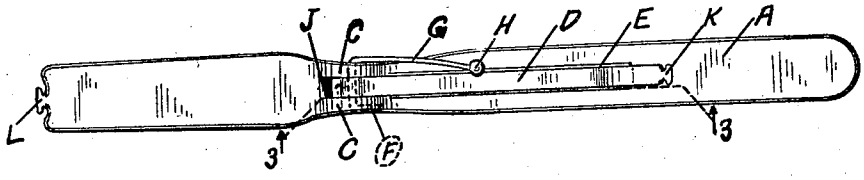


Fig. 2.

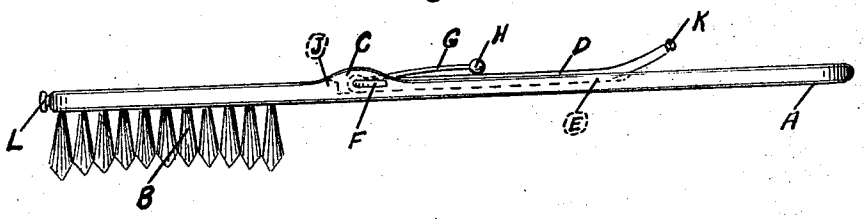
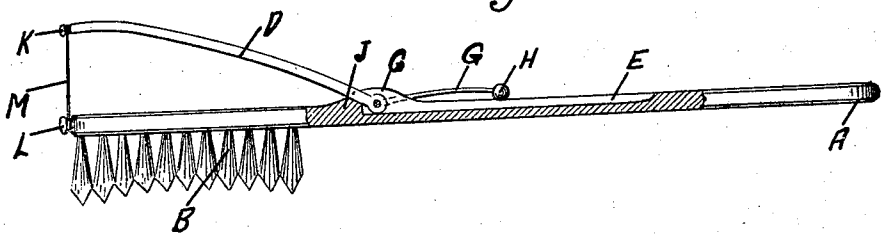


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT O. NELSON, OF SAN FRANCISCO, CALIFORNIA.

ATTACHMENT FOR TOOTHBRUSHES.

Application filed July 30, 1923. Serial No. 654,788.

To all whom it may concern:

Be it known that I, ROBERT O. NELSON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Attachments for Toothbrushes, of which the following is a specification.

This invention relates to attachments for tooth brushes, and the main object is to provide a simple, efficient and practical device upon the back of a tooth brush for holding a short span of dental floss, and which device is so constructed as not to interfere with the tooth brush, when the latter is used as such. Further objects will be disclosed in the course of the following specification, the invention being illustrated in the accompanying drawing, in which:

Fig. 1 is a top view of a tooth brush in which is embodied my invention.

Fig. 2 is a side elevation of the brush, as shown in Fig. 1.

Fig. 3 is a partly sectional elevation of the device as seen substantially on the line 3—3 in Fig. 1, and showing the floss stretching arm in its forward or operative position.

Referring to the drawing more specifically and by reference characters A designates the handle or body portion of a tooth brush having bristles B. The body member A is provided with a pair of integrally formed humps C, between which is pivotally secured the end of a lever arm D which lever arm normally rests in a shallow channel E in the back of the body member A. The pivoting pin of the lever arm consists of a spring wire having a short angular end F imbedded in one of the humps C and a spring arm G. The end of the arm G is curved or formed with a ball portion H so that the lever arm D will snap into the channel E, and retains it in this position, when not in use, so that it cannot interfere with the brushing of the teeth.

When a dental floss or thread is to be used to clean out between the teeth, the arm D is slipped out from under the ball H and is swung forward until it stops against a shoulder J of the member A, in which position its outer end is spaced about an inch or so from the adjacent end of the brush body. Said ends of the arm D and brush body A are preferably formed with cleats K and L, respectively, to which is tied or hitched a span of dental floss M. The floss can be tied or stretched as tight as desired, and will of course resist the backward tendency of the arm D (caused by its contact with the shoulder J), until it is united or cut loose therefrom.

It will readily be understood that with a span of floss retained in the position shown in Fig. 3, it may be manipulated very conveniently to the end for which it is intended.

It is further understood that suitable modifications may be made in the invention, as herein disclosed and described, provided, however, that such modifications come within the spirit and scope of the appended claims. Having now therefore fully shown and described my invention, what I claim to be new and desire to protect by Letters Patent is:

1. The combination with the body member of a tooth brush, of a cleat formed at one end thereof, an arm pivotally secured at one end to an intermediate portion of the body member and having a cleat at its other end adapted to be spaced laterally from the first mentioned cleat, said cleats being adapted to connect the ends of a span of dental floss, which span will assume a transverse position to the body member.

2. The combination with an elongated body member, of an arm pivotally secured at one end to the body member, at an intermediate point between its ends, and normally lying thereagainst, said arm being adapted to swing over with its outer end in a laterally spaced position with respect to the adjacent end of the body member, so that a span of dental floss stretched between said adjacent ends will lie in a transverse or perpendicular direction with respect to the body member.

3. The combination with a tooth brush, of a lever arm pivotally secured thereto and normally resting against the handle thereof, means for stopping the arm when it is swung over to the bristle end of the brush so that its swinging end will be spaced from said bristled end and means for securing a span of floss between said arm and brush.

4. The combination with a tooth brush, of an arm pivotally secured at one end to an intermediate portion of the brush and resting against the handle thereof when in-

active, said arm being adapted to swing over the back of the bristle end of the brush with its swinging end spaced therefrom, and means at the outer end of the arm and the bristle end of the brush to secure a span of dental floss.

5. The combination with a tooth brush, of an arm pivotally secured upon the back thereof and normally resting, when inactive, against the handle of the brush, means at the bristle end side of the pivot to stop the arm when it is swung over the back of the bristle end of the brush, to space the end of the arm from the adjacent end of the brush, and means at said adjacent arm and brush ends to secure a span of dental floss therebetween.

6. In a device of the character described, an elongated body member, an arm pivoted thereto and adapted to swing back thereagainst when in inoperative position, spring means for releasably retaining the arm in said inoperative position, and means for stopping the lever arm, when swung forward, to space its swinging end with respect to the adjacent end of the body member, when in operative position, so that a span of dental floss may be secured between said adjacent ends.

7. In a device of the character described, an elongated body member, a lever arm pivoted thereto and adapted to swing back against the same when in inoperative position, and a shoulder formed integrally with the body member to stop the lever arm when the same is swung forward, whereby a span of dental floss can be stretched between the outer end of the lever and the corresponding end of the body member.

8. In a device of the class described, an elongated body member, a lever arm pivoted thereto and adapted to swing back thereagainst when in inoperative position, a wire member forming a pivot pin at one end, for pivoting said lever, and being formed at its other end in a spring clip, to releasably engage the lever arm, said lever arm co-operating with the body member to form means for securing the ends of a span of dental floss when the arm is swung into a forward operative position.

In testimony whereof I affix my signature.

ROBERT O. NELSON.