

May 6, 1924.

J. R. FAIR

1,493,331

APPLIANCE FOR CLEANING TEETH

Filed Aug. 13, 1923

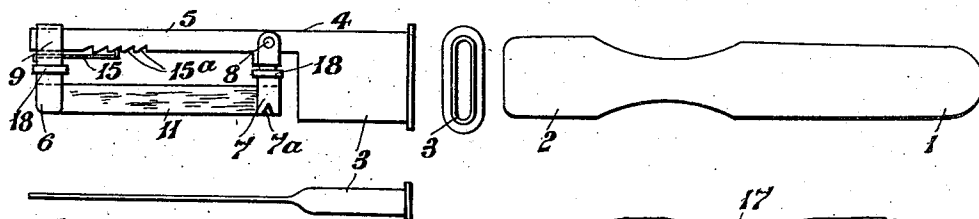


Fig. 1.

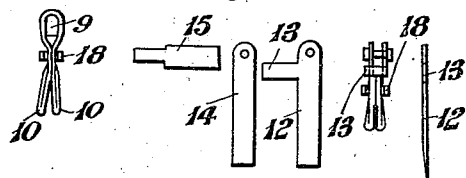


Fig. 2.

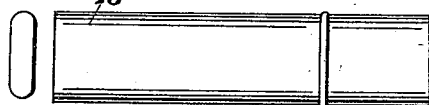


Fig. 3.

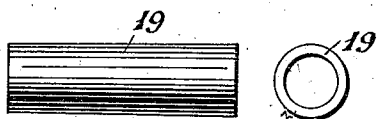


Fig. 4.

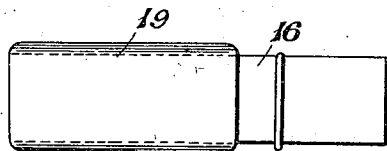


Fig. 5.

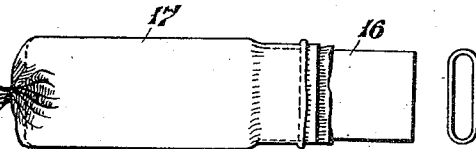


Fig. 6.

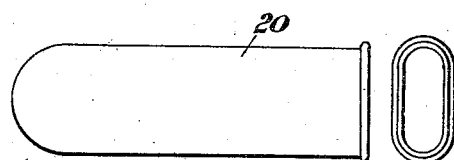


Fig. 7.

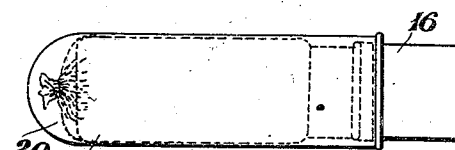


Fig. 8.

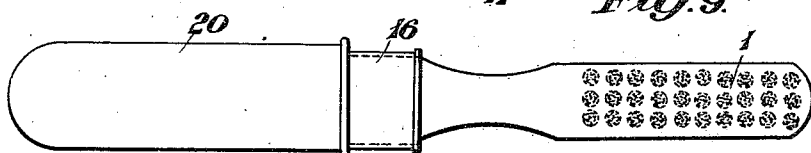


Fig. 9.



Fig. 10.

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UNITED STATES PATENT OFFICE.

JAMES ROBERT FAIR, OF DUBLIN, IRELAND.

APPLIANCE FOR CLEANING TEETH.

Application filed August 13, 1923. Serial No. 657,150.

To all whom it may concern:

Be it known that I, JAMES ROBERT FAIR, subject of the King of Great Britain, residing at 49 Pembroke Road, Dublin, Ireland, have invented new and useful Improvements in and Relating to Appliances for Cleaning Teeth; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in and relating to appliances for cleaning teeth and has for its object to provide means in addition to or as a substitute for the ordinary bristles of a tooth brush whereby the teeth may be more efficiently cleaned and polished.

Broadly the cleaning device for teeth according to the present invention comprises a handle member or an attachment which may be detached from an existing tooth brush having associated with it polishing or cleaning substance in the form of toweling, wash flannel, cotton dental floss or other suitable material.

The material may be used in conjunction with an ordinary tooth brush by being secured in any suitable manner to the back of a brush or a convenient part of the handle portion or to an apparatus which may be attached or detached permanently or otherwise, or such material may partially or wholly be adopted as an addition to or substitute for the ordinary bristles.

In order that my invention may be clearly understood and readily carried into effect I have appended hereto a sheet of drawings illustrating the preferred embodiment of same wherein:—

Fig. 1 is a view illustrating the chief elements of my tooth cleaning appliance detached from each other.

Fig. 2 is a view illustrating tape securing members which are shown in position in Fig. 1.

Fig. 3 is a view of a rigid cover for the tape carrying member.

Fig. 4 is a view of a tubular piece of rubber or other suitable material.

Fig. 5 is a view illustrating the attachment of the rubber tube in Fig. 4 to the cover in Fig. 3.

Fig. 6 is a view of a cover of tooth polishing substance such as toweling or the like.

Fig. 7 is a view of the cover in Fig. 6

secured over the assembled parts shown in Fig. 5 by means of an elastic band or other device.

Fig. 8 is a view of a rigid protector adapted to be placed over the toweling cover.

Fig. 9 is a view of the rigid cover in Fig. 8 in position and

Fig. 10 is a view of the completely assembled device.

Referring to the drawings my invention is shown as applied to an ordinary tooth brush 1 having a shortened handle 2 which is adapted to receive the rigid tubular end 3 of a tape carrying member 4, the inner configuration of the tubular end 3 being shaped to fit tightly on to the handle 2. The tape carrying member for the major portion of its length is relatively narrow as at 5 and to this are secured a pair of tape securing members 6 and 7 one of which 6 is slidable along the narrow portion 5 and the other of which 7 is pivoted, or the same may be hinged to said portion as at 8, and, if desired, provided at its free end with a notch 7^a for engagement by a finger nail of the operator to swing the member about its pivot to facilitate engagement and disengagement of a tape to and from the same. The securing member 6 is made from a single piece of flat metal or other suitable material bent at its median position to provide an eye 9 to slide over the extension 5, and to provide a pair of limbs 10 between which is adapted to be gripped one end of a tape 11. The other securing member 7 is made from two pieces of metal 12 and 14 one of which has a tongue 13 which is bent at right angles to the plane of the piece of metal 12 to provide a means of retaining the member in its rectangular position. Both the members 6 and 7 have collars 18 disposed thereon adapted to be slid a short distance over the limbs between which the tape 11 is gripped. The ends of these limbs are bent back upon themselves as shown to do away with dangerous sharp edges. To enable the tape 11 to be tautened the member 6 carries a tongue 15 turned up at its free end to engage serrations 15^a formed in the lower edge of the narrow extension 5.

The object of the tape 11 is to enable crevices between the teeth to be cleaned, and when this tape is not required for use it is covered by a cap 16 of metal, celluloid, or other suitable rigid material (Fig. 3). When it is desired to polish the teeth with

toweling or other suitable material a cap cord or tape 17 of the desired material (Fig. 6) is placed over the cap 16, preferably with an interposition of india-rubber or other suitable soft yielding material which may be in the form of either a cord, tape, series of rings, or a tube 19 (Figs. 4 and 5). Finally to provide a complete closure for the device and for a handle for the ordinary tooth brush 1 a cap 20 of rigid material (Figs. 8, 9 and 10) is placed over the toweling or like material 17.

From the foregoing it will be seen that a compact combination of elements is provided whereby a user of a tooth brush may have a self contained appliance which includes all the essential elements for thoroughly cleaning and polishing the teeth.

What I claim is:—

1. The combination with a tooth brush including a handle, of a cleaning device detachably associated with said handle, a cover for said cleaning device, a polishing substance associated with said cover, and a cap to enclose said polishing substance.

2. The combination with a tooth brush in-

cluding a handle, of a cleaning device associated with said handle, a cover for said cleaning device, polishing material detachably associated with the exterior of said cover, and a cap to enclose said polishing material.

3. The combination with a tooth brush including a handle, of a pad of yielding material carried by said handle and polishing material arranged over said pad.

4. In a device of the class described, a notched support, means for attaching one end of a cleaning element to said support, a securing member adjustable along the support for attaching the other end of the cleaning element thereto, and means co-operating with the notches in said support to retain said securing member in different adjusted positions along the support.

In witness whereof I have signed this specification in the presence of two witnesses.

JAMES ROBERT FAIR.

Witnesses:

H. ROWLES,
L. WELLS.