

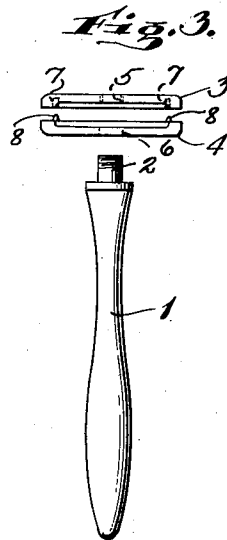
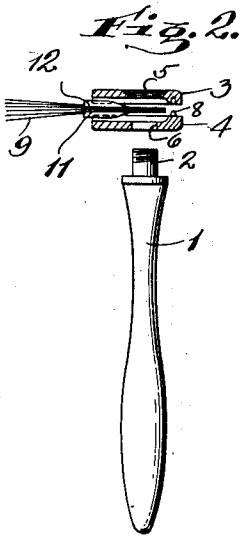
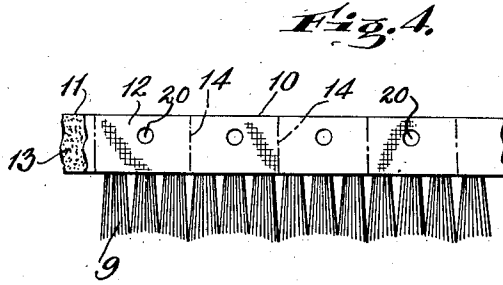
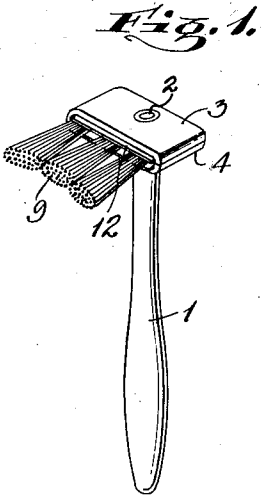
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BRUSH

Filed Feb. 19, 1931



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BRUSH

Application filed February 19, 1931. Serial No. 516,964.

This invention relates to an improvement in tooth brushes, and has for one of its objects the provision of a construction which is novel, sanitary and relatively inexpensive.

5 A further object of my invention is the provision of a tooth brush in which the bristles of the brush are removably secured in a flexible holder which in turn fits the handle, the bristles being set at such an angle to the
10 handle as to facilitate vertical movement of the brush in the action of cleaning the teeth, as distinguished from the horizontal movement employed with the usual brush.

A still further object of my invention is the provision of a structure having the characteristics above noted and additionally provides brushes and a holder therefor whereby
15 a brush after a single use is thrown away and may be readily substituted with another.

20 To improve the attachment of the brush to the handle and to reduce the cost of manufacture and hence price to the consumer my improved structure provides a strip of flexible material to which the bristles of the
25 brush are secured. Preferably this support for the bristles is capable of accommodating a plurality of brushes so that previous to insertion in the holder a brush and its support may be torn from the others and after use
30 may be thrown away. This, it will be appreciated, provides at very sanitary structure and if the brushes are furnished in strip form, that is, several brushes secured to the one strip, loss of the brushes is of course reduced to a minimum.

In the drawings accompanying this application:

Fig. 1 is a drawing illustrating an embodiment of my invention;

40 Fig. 2 is a side elevation of the device of Fig. 1;

Fig. 3 is a front view of the device of Fig. 1 with the brush removed; and

45 Fig. 4 is a view of the brush structure and support therefor.

Referring to the drawings in detail, my invention, as illustrated, takes the form of a handle designated 1 provided with a reduced threaded portion 2 at its upper end.

50 Cooperating with this handle is a flexible

clamping head composed of upper and lower sections designated 3 and 4, respectively. This clamping head is for the purpose of clamping the brush in place as will be presently explained. The upper section 3 of the
55 clamping head is provided with a threaded hole 5, while the lower section is provided with a hole 6; the threaded reduced end 2 of the handle is screwed into these holes. As
60 will be seen from Fig. 3, for instance, the upper section of the clamping head may be provided with holes 7 and the lower section with pins 8 to prevent relative rotation of the two sections of the clamping head.

The bristles 9 of my improved brush are
65 carried in a flexible support 10. This support conveniently comprises two strips of suitable flexible material such as paper or cloth, designated 11 and 12, or one piece of material simply folded over. The inner face
70 of either or both of these strips of material is provided with a suitable adhesive shown at 13 and which may be a rubber cement, for instance. The bristles 9 are interposed between the strips 11 and 12 and when pressure
75 is applied to the support 10 it will be obvious that the bristles will be held in place. If desired the cement may be vulcanized.

This arrangement or construction provides a flexible carrier or support for a plurality of
80 sets of bristles 9, a brush, for instance, comprising three sets of the bristles as illustrated, although of course the number may be varied as desired depending a good deal upon the width of the end of the holder for the brush.
85

In use the required number of bristles 9, for instance the three sets of the bristles as illustrated in Fig. 4, may be torn from the support 10 along the line 14 for instance of
90 Fig. 4 and the severed support with the bristles attached thereto placed in the holder substantially as shown in Fig. 2, the upper and lower sections of the holder then being clamped upon the bristle support and when the handle 1 is screwed up the threaded reduced end passing through the perforation 20
95 in the support it will be obvious that the brush will be securely held in position.

This provides a very inexpensive construction and permits of strips of spare brushes or
100

refills to be sold at a cost to the consumer which will enable the consumer to discard a set of bristles after a single use, thereby providing an extremely sanitary brush particularly as compared to the usual tooth brush which is one-piece and may be, and probably usually is, used until worn out.

It will be seen also that the bristles 9 are so arranged as to provide a fairly thin flat brush structure and that by disposing the clamping head transversely of the handle 1, as illustrated, the brushes are held in position with respect to the handle at such an angle as to facilitate vertical movement of the brush in cleaning the teeth which is the accepted modern practice.

It is to be understood that while I have shown the handle 1 as provided with a threaded stud 2 to engage the threaded hole 5 in the upper member 3 of the clamping head of this device, this construction may be reversed in that the upper member 3 may be provided with a threaded stud and the upper end of the handle 1 with a threaded hole to receive the stud.

What I claim is:—

1. An article of the class described comprising in combination a handle, a detachable brush-clamping head carried at the end of the handle, and a brush head comprising bristles with a flexible mount therefor removably clamped in said head and extending nearly at a right angle to the handle.

2. An article of the class described comprising in combination a handle, a brush-clamping head at the end of the handle, and a flat brush head comprising bristles mounted on a flexible support removably clamped in said head, the plane of the brush head being at an angle transverse of the longitudinal axis of the handle.

3. An article of the class described comprising in combination an elongated handle, a two-part clamping head affixed to the outer end of the handle, and a flat brush head comprising bristles detachably clamped between the two parts of the clamping head, the plane of the brush being at an angle transverse of the longitudinal axis of the handle.

4. An article of the class described comprising in combination an elongated handle, and a brush head comprising bristles mounted on a flexible support removably carried by the handle, the brush head extending nearly at right angles to the handle.

This specification signed this 17th day of February, 1931.

HENRY HERMAN.