

E. F. HOFFMAN.
TOOTH BRUSH.
APPLICATION FILED AUG. 6, 1913.

1,103,879.

Patented July 14, 1914.

Fig. 1.

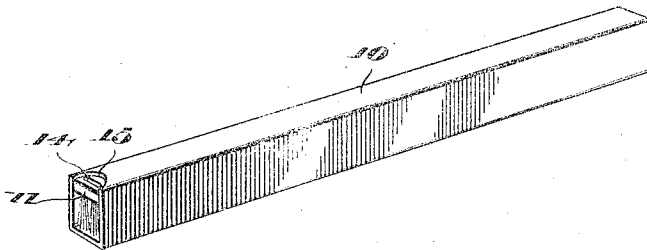


Fig. 2.

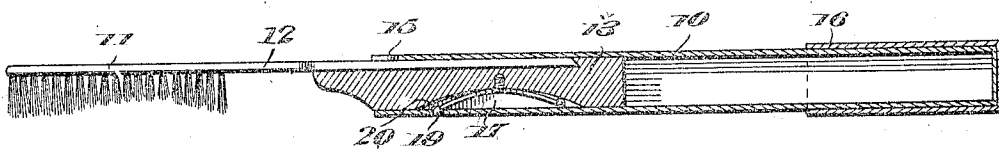


Fig. 3.

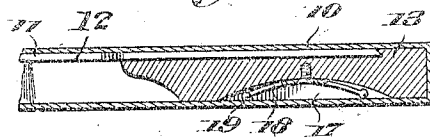
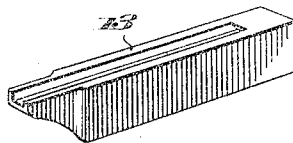


Fig. 4.



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TOOTH-BRUSH.

1,103,879.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD F. HOFFMAN, a citizen of the United States, residing at Glandorf, in the county of Putnam and State of Ohio, have invented new and useful Improvements in Tooth-Brushes, of which the following is a specification.

The invention relates to tooth brushes, and has for an object to provide a tooth brush of the collapsible type and which can be conveniently carried in the pocket in the same manner as a fountain pen or conveniently packed in a grip, the tooth brush being constructed so that the brush body is normally inclosed in a casing to retain the same in a sanitary and clean condition.

The invention embodies, among other features, the provision of a tooth brush which can be cheaply manufactured and which includes a casing containing a brush body arranged to slide into and out of the casing and whereby the casing will constitute a handle for the brush body when the same is in use, the object being to provide a sanitary tooth brush wherein the brush body when not in use will not come in contact with foreign matter which would tend to be harmful to the teeth when the brush is applied thereto or make the brush unsanitary and unfit for use.

In the further disclosure of the invention reference is to be had to the accompanying drawings, constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which:

Figure 1 is a perspective view of the tooth brush, the brush body being shown in closed position and the cap being shown removed from the casing; Fig. 2 is a vertical longitudinal sectional view showing the brush body in open position and ready for use; Fig. 3 is a fragmentary vertical sectional view, showing the position of the locking head within the casing when the brush is in closed position with respect to the casing; and Fig. 4 is a perspective view of the locking head.

Referring more particularly to the views, I provide a casing 10 adapted to constitute a suitable handle, the said casing being open at one end and of a size substantially similar to the size of a fountain pen body. A brush body 11 is carried on a shank 12 terminating in a locking head 13 adapted to slide within the casing 10 and which, when in innermost position in the casing, will abut

against the inner end of the casing so that the brush body will lie wholly within the casing as shown, the shank 12 adjacent the outer end of the brush body 11 being provided with a notch 14 which is adapted to be exposed when the brush body is in closed position by cutting away a portion 15 of the casing 10 as shown in Fig. 1; so that the user can insert a finger nail into the notch 14 and withdraw the brush body from the casing, as will be readily understood.

A cap 16 normally closes the casing 10 when the brush body 11 is contained therein, the said cap being adapted to be placed upon the closed end of the casing when the brush body is in open position. The under side of the locking head 13 is provided with an arc-like recess 17 and secured in the recess at the medial portion thereof is a spring-like member 18 terminating at its ends in knobs 19 which ride on one of the inner faces of the casing 10 when the brush body is withdrawn from closed position with respect to the casing, one of the said knobs 19 being adapted to spring into an opening 20 formed in the casing when the brush body is withdrawn for use so as to lock the brush body in open position with respect to the casing, as shown in Fig. 2.

It will be understood that the brush body 11 when in normal position lies wholly within the casing 10 as shown in Fig. 1 and that the cap 16 normally closes the open end of the casing 10, thus entirely inclosing the brush body and preventing any dirt or dust from entering the casing. When it is desired to use the brush body the cap 16 is first removed from the casing 10 and placed on the other end thereof so that the casing and cap will constitute a suitable handle. The operator now inserts a finger nail into the notch 14 and withdraws the brush body from the casing, thus sliding the locking head 13 within the casing until one of the knobs 19 of the spring-like member 18 springs into the opening 20, thus rigidly locking the brush body in open position with respect to the casing. When the user has completed the operation of brushing his teeth he presses against the outer end of the brush body, thus causing the knob projecting through the opening 20 to be removed therefrom and the brush body 11 will then slide back into the casing, after which the cap 16 is removed from the closed end of the casing and placed upon the open end thereof

to entirely inclose the brush body within the casing.

The casing and cap can be preferably made of aluminum or any other suitable metal which will not rust and which will present a neat appearance and the locking head and shank carrying the brush body can also be made of aluminum or any other suitable material.

10 The device described can be readily carried in the pocket in the same manner as the ordinary fountain pen and will not take up much room in a grip or satchel.

By having the brush body normally inclosed by the casing any dust or dirt will be prevented from adhering to the brush body when the same is not in use and the brush body will not come in contact with foreign substances if the same is placed in a grip or satchel or in the pocket of the user.

20 Having thus described my invention, I claim:

As a new article of manufacture, a tooth brush comprising a casing having one end open and partially cut away, a brush body,

a shank carrying the brush body, a locking head slidable within the casing and having the shank connected thereto, a notch formed in one end of the shank and adapted to project through the cut away portion of the casing when the brush body is within the casing, and a spring member including a plurality of arms and carried by the locking head, with the said spring member movable therewith to slide along one of the walls of the casing, one of the arms of the spring member being adapted to have an end project into a depression in the casing to lock the brush body in extended position and the other arm being adapted to abut against the wall of the casing to hold the locking head against sidewise movement within the casing.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD F. HOFFMAN.

Witnesses:

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L. F. HOFFMAN.