

(No Model.)

D. W. TOWER.
TOOTH BRUSH.

No. 570,573.

Patented Nov. 3, 1896.

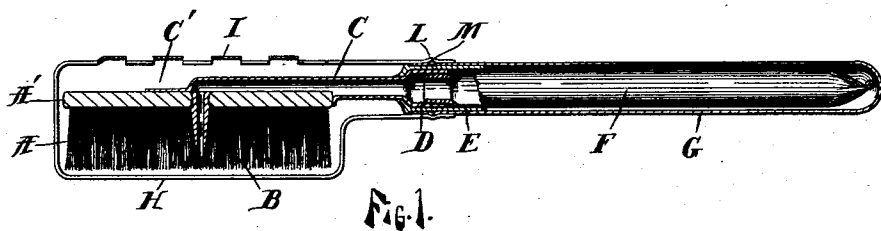


Fig. 1.

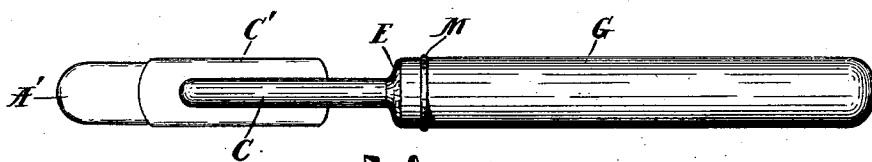


Fig. 2.

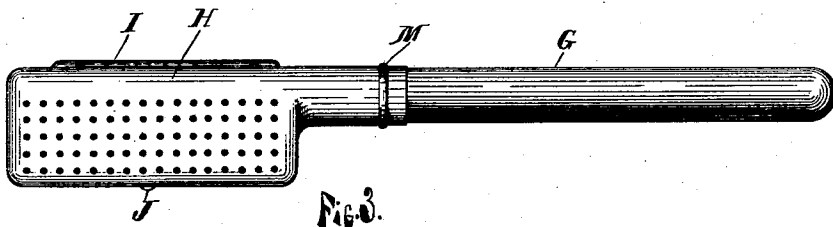


Fig. 3.

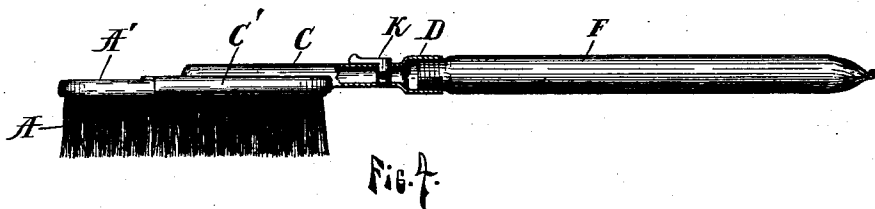


Fig. 4.

Witnesses

Lewis E. Clauser
Lois Moulton

Inventor

Daniel W. Tower.

By Attorney

Luther V. Moulton

UNITED STATES PATENT OFFICE.

DANIEL W. TOWER, OF GRAND RAPIDS, MICHIGAN.

TOOTH-BRUSH.

SPECIFICATION forming part of Letters Patent No. 570,573, dated November 3, 1896.

Application filed September 19, 1895. Serial No. 562,946. (No model.)

To all whom it may concern:

Be it known that I, DANIEL W. TOWER, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Tooth-Brushes and Casings Therefor; 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 has relation to improvements in tooth-brushes and casings therefor; and it consists in certain peculiarities in the construction, arrangement, and combination of the several parts thereof, substantially as hereinafter described, and particularly pointed out in the subjoined claims.

The object of the invention is to provide a casing especially useful for fountain tooth-brushes having a collapsible tube for containing the dentifrice, which may be quickly and easily applied and removed and when applied to the brush will permit evaporation of the dentifrice, and thereby prevent the brush fibers from being gummed or stuck together, and in which, furthermore, the part of the casing inclosing the brush proper is independent of the part inclosing the stem or tube, whereby the latter may be replaced after the brush fibers have been supplied with dentifrice to protect the collapsible tube and serve as a handle for the device. This object is accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a central longitudinal section of a device embodying my invention; Fig. 2, a back view of the same with the brush-case removed; Fig. 3, a side view of the device entire, and Fig. 4 the same with the entire case removed and showing a stop-valve in the stem.

Like letters refer to like parts in all of the figures.

A is the brush proper, attached to a suitable back A', and provided with a central flexible nipple B to discharge the paste and having each of its ends of the same form.

C is a hollow stem, which may or may not have a stop-cock K near the middle to stop the flow of paste, and is provided with a flange

C' at one end, having downwardly and inwardly turned edges to engage the sides and inner end of the brush-back A' and secure the same to the stem C. The downwardly and inwardly turned edges of flange C' are at the side and rear end only thereof, whereby the front will be left open to permit the brush-head to be introduced longitudinally through the same, and the brush-head is of the same construction at both of its ends. It will thus be seen that the brush-head may be removed and replaced in reversed position end for end, thus greatly prolonging the life of the fibers. C is also provided with a screw-socket D to engage the screw-threaded end of a collapsible tube F, which tube contains the supply of dentifrice or paste, and said stem is also provided with a sleeve E outside said screw-threaded socket to engage the open end of a handle-case G and detachably secure the same in place outside of and inclosing the tube F. Said case and sleeve are preferably oval in cross-section to accommodate the collapsed outer end of said tube.

H is a case to inclose the brush. Said case is divided longitudinally and provided with a hinge I and catch J at its respective sides and when closed is connected to the handle-case G by overlapping the end of the same, being provided with a circumferential groove M, engaged by a corresponding bead L on said handle-case. Case H is also formed with a number of perforations to permit evaporation of the dentifrice from the fibers, and thereby prevent gumming of the latter.

In the operation of the device the cases G and H are removed and a portion of the contents of the tube F forced through the stem C and nipple B and into the brush. As the cases G and H are formed of separate sections, the former may now be replaced, so as to provide a rigid handle to be grasped by the operator, and thereby protect the collapsible tube and prevent the waste of dentifrice that might occur if said collapsible tube were used as the handle. The stop-cock K is then closed to prevent further flow of the paste. The stop-cock K may be omitted, as in Fig. 1, and the device will operate, especially if the tube F is made somewhat heavier than usual. The socket D and end of the tube F may also be plain instead of screw-threaded.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

- 5 1. A casing for tooth-brushes, consisting of a part to inclose the stem and a separate part to inclose the brush proper, said latter part being formed of hinged sections, whereby the brush proper may be uncovered without uncovering the stem, as specified.
- 10 2. A casing for tooth-brushes, consisting of a part to inclose the stem and a separate part to inclose the brush proper, said latter part being constructed of hinged sections having perforations.
- 15 3. In a tooth-brush, the combination with the tubular stem having a brush at one end, and a collapsible tube attached to the other end of said stem, of a sleeve encircling the latter end of the stem, and a casing inclosing

said tube and detachably secured to said sleeve, substantially as described. 20

4. The combination with a fountain tooth-brush, having a tube to contain the dentifrice and provided with a sleeve, of a detachable casing for said tube, engaging said sleeve and 25 provided with a bead, and a detachable casing for the brush proper, said latter casing having a groove to receive said bead and being formed of sections hinged together at one side and provided with a catch at the other 30 side of the casing.

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

DANIEL W. TOWER.

Witnesses:

LUTHER V. MOULTON,
LEWIS E. FLANDERS.