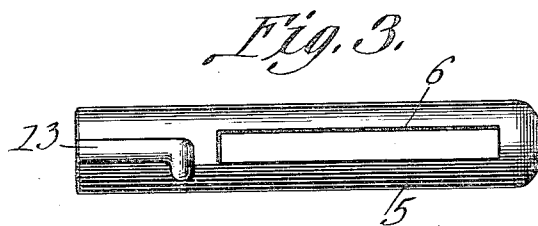
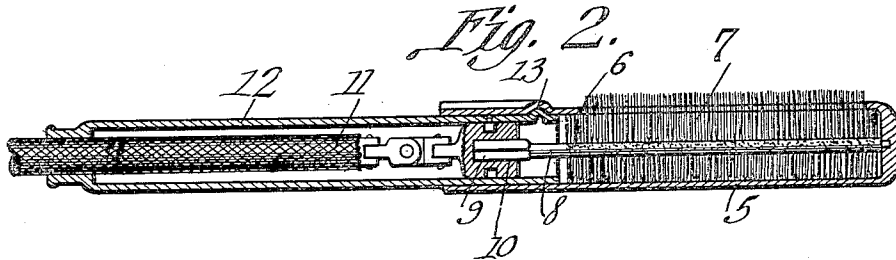
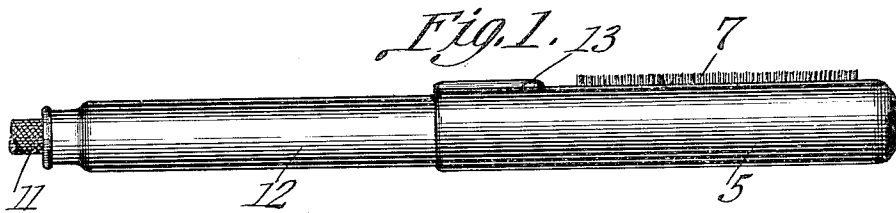


B. O. BATES.
TOOTH BRUSH.
APPLICATION FILED MAY 17, 1915.

1,243,579.

Patented Oct. 16, 1917.



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Inventor

By

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BURPEE OATES BATES, OF CAMPBELLTON, NEW BRUNSWICK, CANADA, ASSIGNOR OF TWO-THIRDS TO WILLIAM P. GRAY, OF CAMPBELLTON, NEW BRUNSWICK, CANADA.

TOOTH-BRUSH.

1,243,579.

Specification of Letters Patent.

Patented Oct. 16, 1917.

Application filed May 17, 1915. Serial No. 23,623.

To all whom it may concern:

Be it known that I, BURPEE OATES BATES, a subject of the King of Great Britain, residing at Campbellton, in the Province of New Brunswick and Dominion of Canada, have invented certain useful Improvements in Tooth-Brushes, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to tooth brushes, one object of the invention being the provision of a rotary tooth brush, so mounted that the bristles are exposed at one place through a protecting casing, and operable
15 so that the most natural and beneficial rubbing of the teeth may be performed.

A further object of the invention is the provision of a device of this character in which the handle and shank or stem of the
20 brush are detachably connected together, so that the brush may be renewed, and also of a casing which can be quickly connected to and released from the handle, to permit of the proper arrangement of the brush.

25 With the foregoing and other objects in view and which will appear as the description proceeds the invention resides in the features as particularly claimed, there being possible changes in the construction without
30 departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 is a side elevation of the complete device.

35 Fig. 2 is a longitudinal section through the same.

Fig. 3 is a detail view of the casing *per se*.

Fig. 4 is a detail view of the handle *per se*.

Referring to the drawings, the numeral 5 designates the casing, which is provided
40 with the longitudinal slot 6 through which the bristles of the brush 7 are adapted to be projected when the parts are assembled as shown in Figs. 1 and 2. The brush is carried by the shank or stem 8, which is pro-

vided with the squared end 9, for engagement with the socket 10, of the flexible shaft 11, the casing 5 being connected to the casing 12 of such shaft by the bayonet slot locking means 13, so that the parts may be easily and quickly assembled and disconnected. 50

In use the parts are connected as shown in Fig. 1, and the operator by gripping the casing 12 as a handle inserts the closed end of the casing 5 within the mouth, the shaft 11 being rotated mechanically through a motor, 55 or by hand, if desired, to impart the desired rotation to the brush, so that the portion thereof projected through the slot 6 will engage and clean the teeth. As the brush is rotated in one direction all the time, the 60 teeth are brushed or cleaned longitudinally, and no injurious effect is produced upon the gum.

It is also apparent with this arrangement that the brushes may be renewed, and that 65 the casing 5 and the flexible shaft 11 will out last many.

What I claim as new, is:—

A tooth brush comprising an outer tube closed at one end and having a long narrow 70 slot, an inner tube telescoped within the outer tube and having a bayonet slot connection therewith, a rotating socket member within that portion of the inner tube confined within the outer tube, a driving means 75 connected to the socket member and projecting through the other end of said tube, and a rotary brush having one end journaled in the closed end of the outer tube and the other end connected to the socket member, 80 the periphery of the brush projecting through the slot.

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

BURPEE OATES BATES.

Witnesses:

M. A. KELLY,
J. L. RYAN.