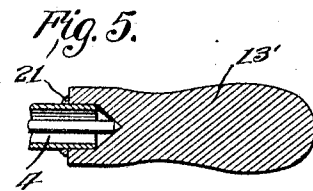
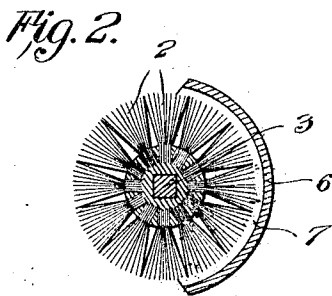
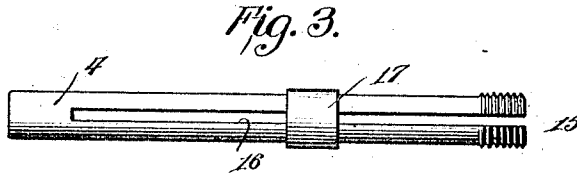
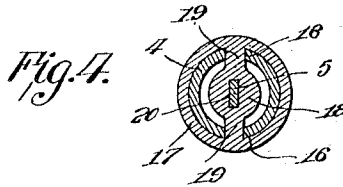
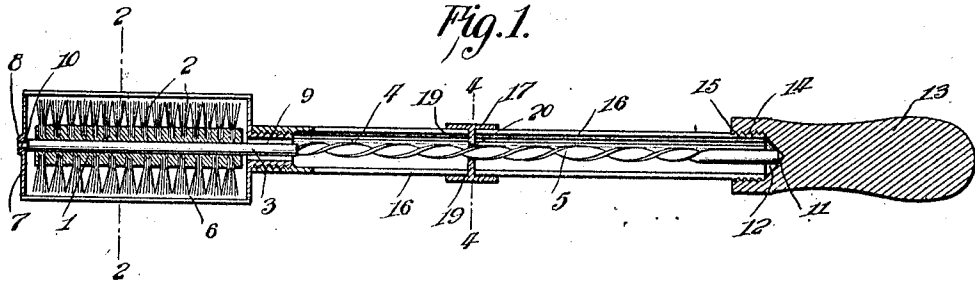


F. C. KUINDERS.
TOOTH BRUSH.
APPLICATION FILED FEB. 20, 1912.

1,040,959.

Patented Oct. 8, 1912.



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FERDINAND C. KUINDERS, OF SEATTLE, WASHINGTON.

TOOTH-BRUSH.

1,040,959.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed February 20, 1912. Serial No. 678,789.

To all whom it may concern:

Be it known that I, FERDINAND C. KUINDERS, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented new and useful Improvements in Tooth-Brushes, of which the following is a specification.

This invention relates to tooth brushes and has for an object to provide a rotary brush and means for rotating the brush against the teeth so as to effect a rapid and effective cleaning of the teeth.

Another object of the invention is to provide a brush which will include a plurality of sections which may be readily separated when desired whereby the parts may be thoroughly cleaned and maintained in a sanitary condition.

In the drawing forming a portion of this application and in which like letters of reference indicate similar parts in the several views: Figure 1 is a longitudinal section through the brush. Fig. 2 is a section on line 2-2 of Fig. 1. Fig. 3 is a side view of the casing. Fig. 4 is a section on line 4-4 of Fig. 1. Fig. 5 is a section through a part of the casing and through the handle showing a slightly modified form of the invention.

The tooth brush comprises a core 1 from which the radial bunches of bristles 2 extend. The core is secured to the shaft 3 adjacent to one end thereof. This shaft extends through a hollow casing 4 and within the casing the shaft is provided with a substantially screw or worm portion 5.

A guard 6 which is substantially of semi-cylindrical configuration in cross section partly embraces the bristles of the brush and at one end the guard is provided with a head 7 in which a bearing passage 8 is formed. The opposite end of the guard 6 is provided with an exteriorly threaded extension 9. At one end, the shaft 3 has a bearing portion 10 which is journaled in the passage 8. The shaft 3 extends through the extension 9 on the guard and through the casing 4 hereinbefore described and beyond the outer end of the casing the shaft is pointed as at 11 and journaled in a correspondingly formed socket 12 in the handle 13. The flared walls of the socket 12 are extended into the threaded walls 14, which latter receives the threaded end 15 of the

casing 4. This construction is such that the handle 13 can be adjusted longitudinally on the casing 4 whereby longitudinal adjustment of the shaft 3 can be made to insure therethrough, the positive seating of the portion 10 of the shaft in its bearing passage 8 in the guard.

The casing 4 is slotted on its opposite sides as at 16, the said slots opening onto the end of the casing at a point adjacent to the handle 13. A sleeve 17 is slidable longitudinally on the casing. This sleeve is connected therewith by means of diametrically opposed lugs 19, and a shaft actuated nut 18. The said nut 18 of the sleeve is provided with a rectangular passage 20 therein which receives the screw or worm like portion 5 of the shaft 3. Now it is evident, from the construction described, that the sleeve 17 may be manually reciprocated upon the casing 4 whereby to impart rotary movements in two directions to the shaft 3. The bristles 2 may be brought into engagement with the teeth whereby to permit of their being rapidly and thoroughly cleaned. All of the parts of the brush are detachable so as to permit them to be disconnected from each other where they may be subjected to a cleaning medium and maintained in a perfect sanitary condition. The guard 6 serves to protect the cheek of the user of the brush against injury as the brush is rotated.

In the modified form of the invention shown in Fig. 5 the handle 13' is soldered or otherwise suitably secured as at 21 to one end of the casing 4

I claim:—

A rotary tooth brush comprising a longitudinally slotted casing having one of its ends exteriorly threaded, a guard carried by the opposite end of said casing, a shaft extending through the casing, and through the guard and having one end journaled in one of the walls of the guard, bristles extending radially from the shaft, a sleeve slidably mounted on the casing and slidably embracing the exterior of said casing, said sleeve having connected therewith by means of diametrically opposed lugs a shaft actuated nut, said nut extending transversely throughout the interior of said sleeve, said lugs being integrally formed

with the inner face of said sleeve at a point intermediate the ends thereof and adapted to extend through the slots of the casing, said nut being operatively associated with
5 the shaft so as to revolve the same on the sliding movement of the sleeve upon the casing, and a handle detachably mounted on the exteriorly threaded end of the casing

and having a bearing passage receiving one end of the shaft. 10

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

FERDINAND C. KUINDERS.

Witnesses:

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LEROY L. TODD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."