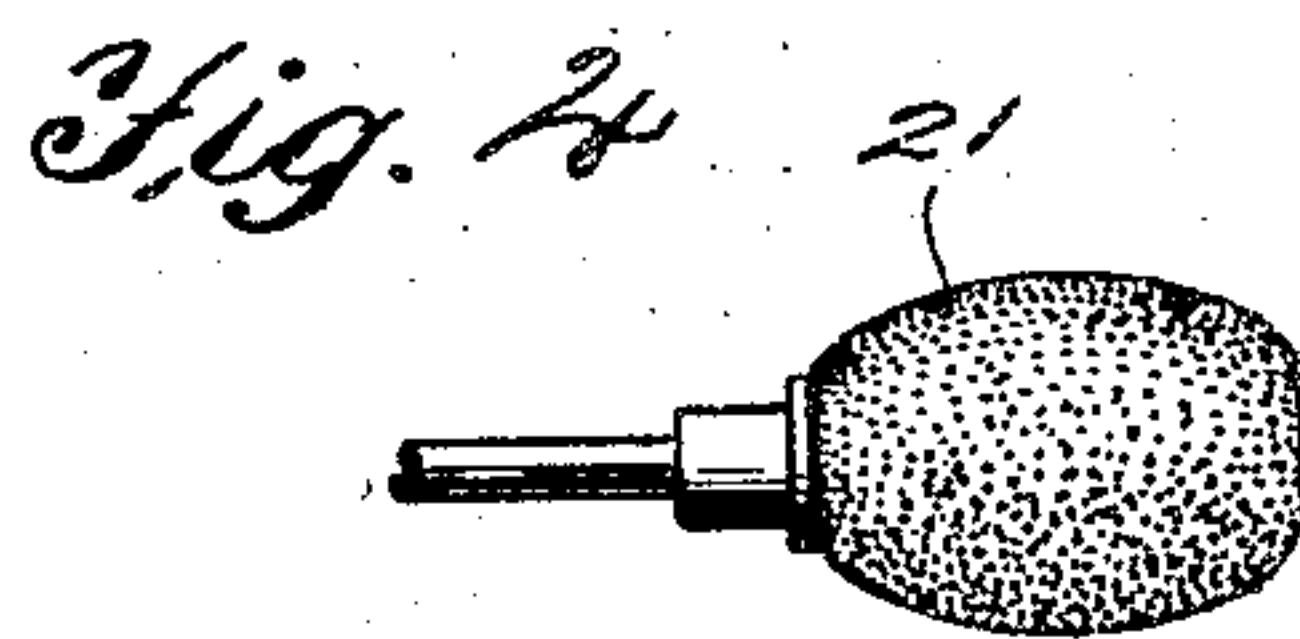
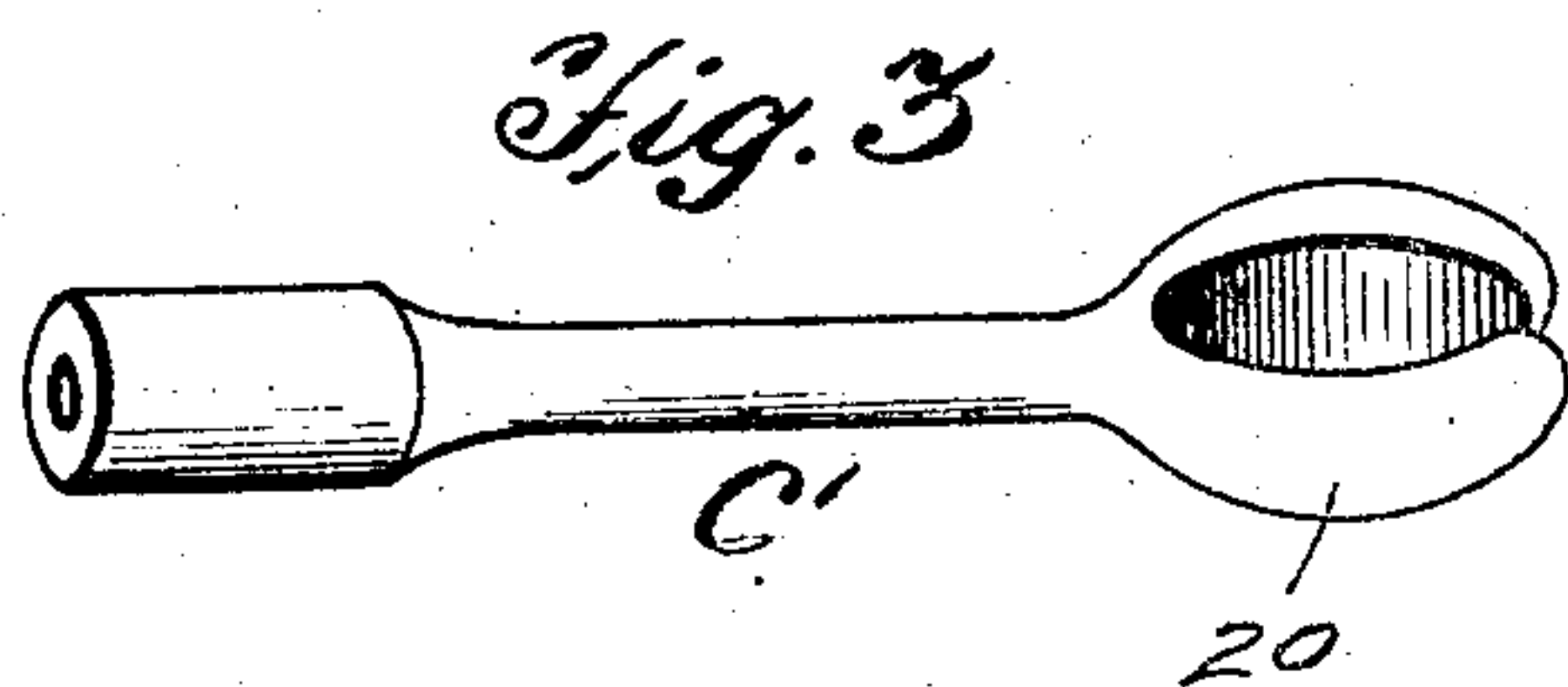
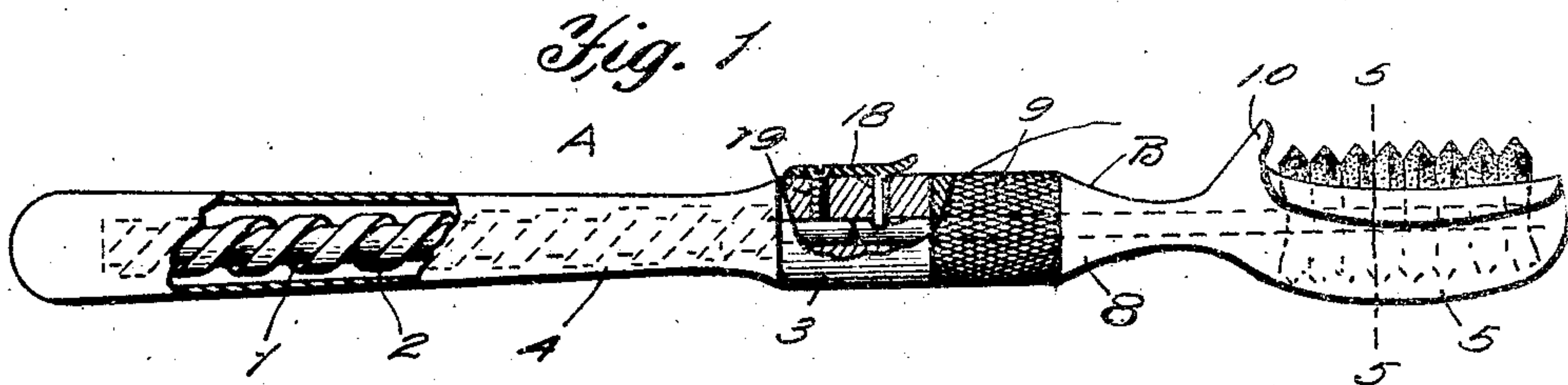


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PATENTED FEB. 25, 1908.

O. H. CHANDLER.
TOOTH BRUSH.
APPLICATION FILED MAR. 6, 1907.



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Witnesses

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TOOTH-BRUSH.

No. 880,277.

Specification of Letters Patent.

Patented Feb. 25, 1908.

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To all whom it may concern:

Be it known that I, ORVIN H. CHANDLER, a citizen of the United States, residing at Clinton, in the county of Laurens and State of South Carolina, have invented new and useful Improvements in Tooth-Brushes, of which the following is a specification.

This invention relates to tooth brushes and it has for its object to present a tooth brush including a cylindrical brush member and means for imparting a rotary or oscillatory motion to the same in a simple and efficient manner.

A further object of the invention is to provide a shield of improved form for guarding the lips and gums of the person using the brush.

A further object of the invention is to provide improved means for steadying the brush while it is being used.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing, Figure 1 is a side view, partly in section, of a tooth brush embodying the invention. Fig. 2 is a side view showing the brush member detached, partly in section. Fig. 3 is a perspective view illustrating a slightly modified form of a shield member. Fig. 4 is a side view illustrating a modified form of the brush member. Fig. 5 is a transverse sectional view taken on the plane indicated by the line 5—5 in Fig. 1.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved brush includes a handle and operating member A, a shield member B and a brush member C which are adapted to be associated together for operation in such a manner that they may be readily separated for cleaning or other purposes.

The handle member surrounds a stem or shaft 1 having a worm or spiral 2 formed

thereon in any suitable manner, and provided at one end with a sleeve or collar 3. The handle proper 4 is mounted for longitudinally slidable movement upon the worm shaft, 1 which it engages in any suitable manner to impart rotary or oscillatory movement thereto.

The shield member B includes a cup shaped shield 5 having a longitudinal recess 6 and preferably provided with laterally extending side flanges 7; said shield is also provided with a longitudinally extending tubular shank or socket 8 which may be circumferentially milled, as shown at 9 or otherwise fitted to form a convenient grasp for the fingers of the person using the brush; the shield may also be provided with an outwardly extending lug 10 adapted to be grasped between the teeth of the person using the brush for the purpose of steadying the movement of the latter.

The brush member C includes a stem or shank 11 having a cylindrical brush 12 which may be of any desired size and shape and which may be manufactured in any suitable and convenient manner. The shank 11 is provided at its inner end which is the end opposite to that carrying the brush with a cylindrical portion 16 adapted for insertion into the tubular sleeve or collar 3 carried by the shaft 1, and having a notch 17 adapted to be engaged by a catch or fastening member 18 suitably connected with the sleeve 3; for example, by means of the screw 19 which serves to secure the sleeve 3 upon the worm carrying shaft 1.

The shield member and the brush member may be readily assembled by inserting the shank 11 of the brush member endwise through the tubular shank 8 of the shield member; when thus assembled, the cylindrical brush will be partly accommodated in the recess 5 of the shield, while the notched end of the shank 11 will extend a sufficient distance beyond the tubular shank to enable it to be readily introduced into the sleeve 3 where it is engaged and held by the catch 18. The latter thus serves to lock the parts together in operative relation when, after placing the desired tooth wash or detergent material upon the brush within the shield, the device is applied to the teeth where it may be held and grasped securely by inserting the lug 10 between the teeth. The shield may also be grasped by the tubular shank 8

by the fingers of one hand of the operator who, with the other hand reciprocates the handle member 4 longitudinally, thus imparting a rotary or oscillatory motion to the worm shaft and the brush member which is connected therewith, which is thoroughly efficient in cleansing the teeth.

In Fig. 3 of the drawings there has been shown a shield member C' of slightly modified form in that the shield proper, here designated 20, is made relatively short and rounded, and unprovided with the lug 10 to be engaged by the teeth; this form of shield will be found preferable for operating upon the back teeth and upon the backs of the front teeth. This form of shield involves the use of a modified form of brush which will be seen at 21 in Fig. 4 of the drawings. In practice, it will be preferred to put up the improved tooth brushes in sets including several shield members and brush members of different sizes and shapes in connection with a single operating handle with which they may be used interchangeably.

It will be readily understood that no limitation is made to the precise forms of shields and brush members herein shown, as the same may be varied indefinitely for particular uses. These and other structural details are capable of being widely modified within the scope of the invention.

Having thus fully described the invention, what I claim as new is:—

1. In a device of the class described, a cup-shaped shield having a tubular shank, a brush disposed in said shield, a stem integral at one end with the brush and fitted for rotation in the tubular shank, said stem being of greater length than the shank with its opposite end projecting beyond the rear end of said shank and formed to provide a locking

member, a worm shaft having at its forward end a sleeve receiving said locking member and provided with a coacting locking member, and a worm-engaging reciprocating handle.

2. In a device of the class described, a worm shaft having a terminal sleeve, a catch operating through the sleeve, a fastening member securing the catch upon the sleeve and the latter upon the worm shaft, a cup-shaped shield having a tubular shank, a brush disposed in said shield, a stem integral at one end with the brush core and extending through and beyond the shank, the opposite projecting end of said stem fitting in said sleeve and being provided with a keeper member engaged by said catch, and a handle member slidably engaging the worm shaft to impart oscillatory movement to the latter.

3. In a device of the class described, a shield member having a tubular shank, laterally extending flanges, and an outward extending tooth engaging lug disposed intermediate the flanges, in combination with a cylindrical brush mounted in the shield and having a stem fitted for rotation in the tubular shank, a worm shaft having a terminal sleeve equipped with a catch engaging the portion of the brush stem which extends through the tubular sleeve, thus assembling the shield member, the brush member and the worm shaft; and a handle slidably engaging the worm shaft to impart oscillatory motion thereto.

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

ORVIN H. CHANDLER.

Witnesses:

W. E. DILLARD,
J. A. BAILEY.