Oct. 26, 1926. 1,604,918

O. A. KING

TOOTHBRUSH CASE

Filed May 23, 1925

Fig. 1.

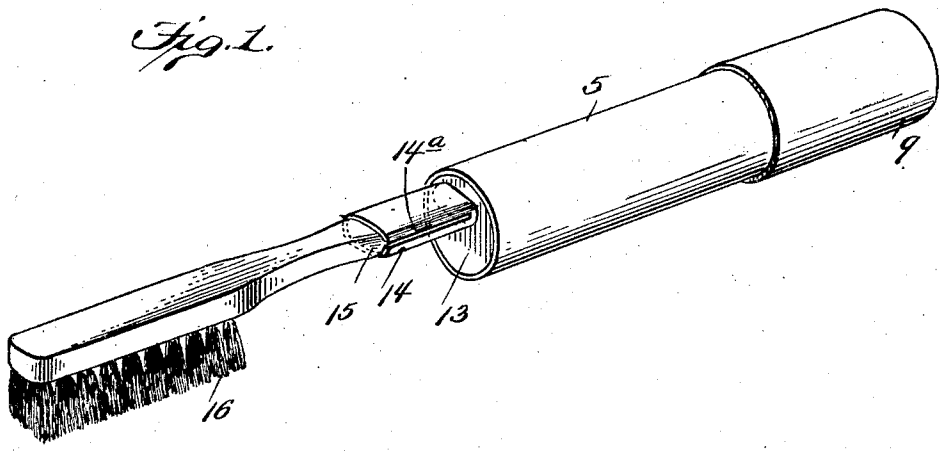


Fig. 3.

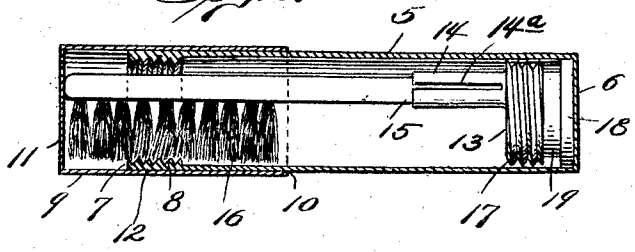


Fig. 2.

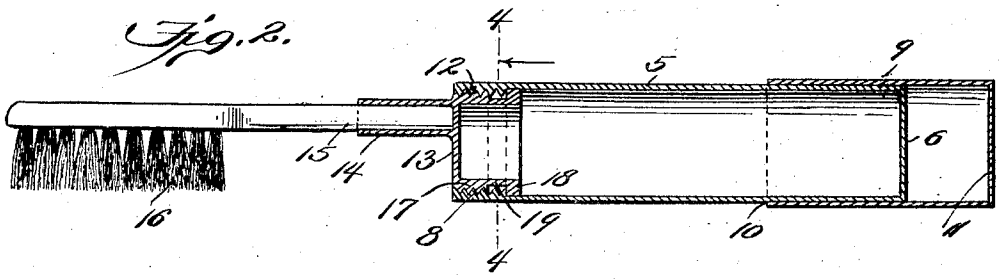
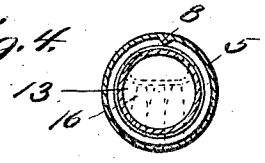


Fig. 4.



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Patented Oct. 26, 1926. 1,604,918

UNITED STATES PATENT OFFICE.

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TOOTHBRUSH CASE.

Application filed May 23, 1925. Serial No. 32,422.

This invention relates to improvements in toilet cases more particularly adapted for use in connection with a tooth brush, the main object of the invention being to provide a novel and improved device of this general character that may be readily carried in the pocket of the user.

A further object of the invention is to provide novel means for holding a tooth brush in a tubular enclosure when not in use, with advantages from a sanitary standpoint, and to facilitate projection of the brush for use without separating the same from any part of the holder.

A further object of the invention is to simplify the construction and arrangement of parts of the enclosing means for a tooth brush adapted to be carried in the pocket of the user, and to maintain the brush in such position at all times that it may be quickly projected for use or moved telescopically with relation to the main portion of the holder to shield the same, and also provide in connection with the main part of the holder a covering cap or tubular member that may also serve to extend the main part of the holder and render the latter usable as a handle or grip when the brush is projected for application to the teeth.

With the foregoing and other objects and advantages in view, the invention consists in the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawing:

Fig. 1 is a perspective view of a tooth brush organization embodying the features of the invention and showing the brush projected for use.

Fig. 2 is a longitudinal vertical section through the improved tooth brush organization as shown arranged in Fig. 1.

Fig. 3 is a longitudinal vertical section of the improved tooth brush organization showing the brush enclosed and fully sealed within the main tubular casing and tubular cover fitted to the latter.

Fig. 4 is a transverse vertical section on the line 4—4, Fig. 2.

The essential elements of the improved tooth brush case or organization consist of a main tubular casing 5 having one end closed, as at 6, and the opposite end 7 open and formed with interior screw threads 8. Cooperating with the main tubular enclosure 5 is a tubular cover 9, fully open at its one end 10 and having the opposite end closed as at 11. At the open end 7 of the main tubular enclosure 5 the material of the said enclosure is slightly thickened, as at 12, to provide for the formation of the screw threads 8, the said thickened portion and screw threads extending only a comparatively short distance from the open terminal of the said main tubular enclosure. The improved tooth brush organization also includes a brush-carrying head 13 having a socket 14 projecting eccentrically therefrom to tightly receive a handle 15 of a tooth brush 16, the handle 15 in this instance being shorter than the handles of tooth brushes as ordinarily constructed, and moreover, the socket 14 is flattened and properly shaped to receive the extremity of the handle 15. The socket 14 is yieldable or resilient and has a longitudinal slot 14ª extending the full length thereof, to permit the said socket to expand when the handle 15 is inserted therein and thereby increase the gripping action of the socket on the handle. The tooth brush and socket remain intact under ordinary usage of the improved device, but the handle 15, by sufficiently forceful pulling action, may be withdrawn from the socket and the tooth brush 16 replaced by another brush in the event the brush becomes worn and unfit for further service. The outer side of the head 13 from which the socket 14 projects is smooth and adjacent to the socket is formed with a run of screw threads 17, to engage the threads 8 at the open end of the main tubular casing 5. The inner end of the head has a stop collar 18 integrally formed therewith, and between this collar and the inner limit or termination of the threads 17 a circumferential groove 19 is formed in the head, and by this means separation of the head 13 from the main tubular casing 5 is prevented after the latter parts are assembled, it being understood that in the original assemblage of these parts any suitable means may be used to permit the insertion of the head 13 in operative relation within the main casing 5, and subsequently the screw-threaded open end 7 of the said member may be brought into close engaging relation with respect to the threads 17 of the head. However, the manner of assembling these parts is immaterial as a number of methods could be used for

accomplishing this result. The head 13 is tubular to lighten the structure, and again referring to the manner of assemblage, the closure 6 of the main casing 5 may be formed of a disk set in the head and secured by well known mechanical operations.

When the improved tooth brush organization is prepared for insertion in the pocket of the user, the threads 17 of the head 13 are released from the threads 8 of the open end 7 of the main tubular casing 5, and the said head and brush carried thereby are pushed inwardly into the main casing, and the sealing of the brush is completed by applying the cover or cap 11 over the open end of the main casing 5 and the projecting portion of the brush 16 as shown by Fig. 3. When it is desired to use the brush, the cover or cap 11 is withdrawn from the open end 7 of the casing 5 and preferably applied over the closed end of the said casing as shown by Figs. 1 and 2, and the brush then pulled outwardly, drawing the head 13 therewith, and when the threads 17 reach the threads 8 by suitably revolving the brush, the said threads 17 are caused to engage the threads 8, and become firmly and positively seated and hold the brush 16 in the position shown by Figs. 1 and 2, the collar 18 then bearing against the inner rear terminal of the threads 8 and preventing further egress of the head 13, as clearly shown by Fig. 2. Owing to the formation of the groove 19, which is deep enough to be out of contact with the rear portions of the threads 8, the collar 18 is rendered effective as a stop means to prevent movement of the head 13 outwardly beyond a predetermined distance. When the collar 18 bears against the rear terminal of the threads 8, the outer side of the said head 13 is flush with the edge of the open end 7 of the main casing 5.

The improved tooth brush holding means as just described is very simple in its operation and may be quickly adjusted to project the tooth brush 16 or store or enclose the latter and shield the same, and it is proposed to form the several parts of the improved device with such dimensions and general proportions that it may be easily carried in the pocket of the user. Through the medium of the enclosing means, or the main casing 5 and cover or cap 11, the tooth brush will be preserved in a sanitary condition when not in use, and it is also intended that such materials be used in the formation of the main casing 5, cover or cap 11 and the head 13 with its several structures as hereinbefore noted, as are suitable for the purpose and preferably as to prevent corrosion from dampness of the brush bristles.

What is claimed as new is:

1. A tooth brush organization of the class specified, comprising a tubular casing of equal diameter throughout its length and closed at one end and fully open at the opposite end and having internal screw-threads adjacent the said open end, a cover removably fitted over the open end of the casing, a head having outer screw-threads to engage the screw-threads of the casing and separable from the said casing screw-threads to permit the head to be moved inwardly the full length of the casing and be located adjacent to the closed end of the said casing when the tooth brush organization is not sealed, the head having a circumferential groove at the extremity thereof opposite that provided with the screw-threads and having a circumferential shoulder to abut against the inner limit of the screw-threads in the open end of the casing to prevent the head from being moved outwardly beyond the end of the casing, and a tooth brush held by and movable with said head for partial insertion in the casing to permit application of the cover and thereby fully enclose the tooth brush.

2. A tooth brush organization of the class specified, comprising a tubular casing open at one end and provided with interior screw threads in said open end, a head provided with cooperating screw threads on the forward portion thereof to separably engage the screw threads within the end of the casing and having a circumferential groove and stop shoulder at the end thereof opposite the screw threads thereon to permit the said head to be detached from the screw threads of the casing and moved longitudinally the full length thereof into the latter, the head at its outer end having an eccentrically positioned, longitudinally projecting flat socket with a longitudinal slot formed in one side edge portion thereof, and a tooth brush having a handle frictionally fitted in the said flat socket, the slotted socket permitting the insertion and withdrawal of the tooth brush handle and the latter and a part of the brush together with the head being movable lengthwise into the casing, a cover removably fitted over the screw-threaded open end of the casing to fully enclose the brush when not in use, the head and brush being unitedly movable inwardly and outwardly and maintained in connection through the medium of the socket.

In testimony whereof I have hereunto set my hand.

ORAL A. KING.