

A. L. T. LOUGHLIN.
 TOILET BRUSH.
 APPLICATION FILED DEC. 9, 1913.

1,104,365.

Patented July 21, 1914.

Fig. 1.

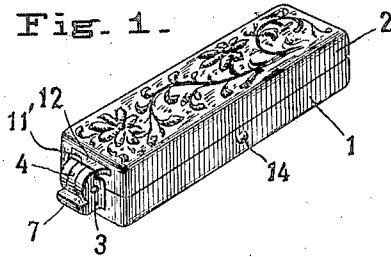


Fig. 2.

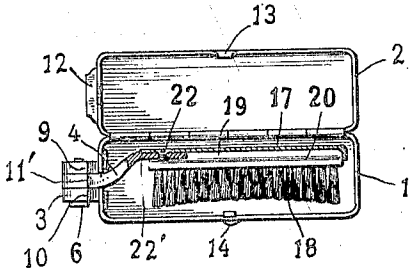


Fig. 3.

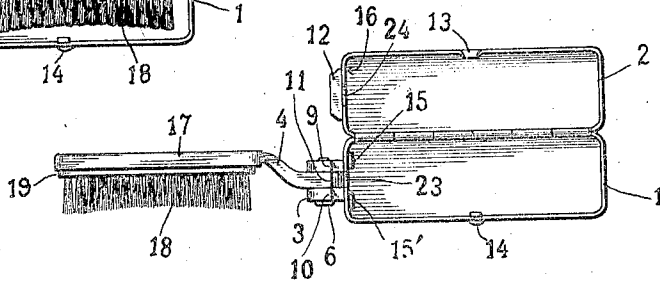


Fig. 4.

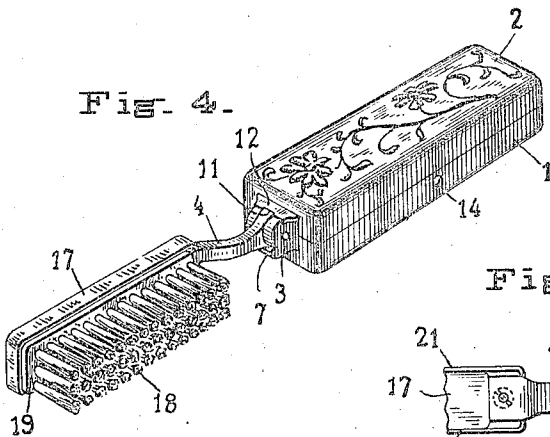
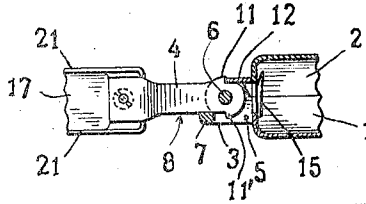


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALICE LOUISE T. LOUGHLIN, OF NEW YORK, N. Y.

TOILET-BRUSH.

1,104,365.

Specification of Letters Patent.

Patented July 21, 1914.

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To all whom it may concern:

Be it known that I, ALICE LOUISE T. LOUGHLIN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Toilet-Brushes, of which the following is a full, clear, and exact description, whereby any one skilled in the art may make and use the same.

The invention relates to toilet brushes and more particularly to a toilet brush of the folding type.

Although the drawings herein illustrate the invention as applied to a tooth-brush, it is obvious that it may likewise be utilized in conjunction with nail, hair, or other brushes wherein it is desired to provide a brush of the folding type.

One object of the invention is to provide for a folding brush in which the brush and its retaining member may be folded compactly within a casing which forms a complete closure therefor.

A further object is to provide a means in conjunction with the casing for firmly and positively locking the brush in extended position with the casing closed so that in use any strain placed upon the brush will not tend to open the casing and will not require any special pressure of the hand to maintain the parts in open position.

A still further object is to combine in a brush of the character described, features of removability and renewability of the brush portion in order that the same casing, which may be of a highly ornamental character suitable for travelers' use and toilet sets, may be used indefinitely with new brushes as desired.

Referring to the drawings Figure 1 is a perspective view of the device with the casing closed and containing the brush and supporting section. Fig. 2 is a top plan view with the box-like handle open, showing the brush folded into the handle. Fig. 3 is a similar view with the brush in extended position. Fig. 4 is a perspective view of the brush with the box closed and forming a handle. Fig. 5 is a detail view of the locking device intermediate the brush and hollow box-like cover.

It is not new in the art to provide hollow handles for toilet articles such as tooth-brushes into which the brush may be inserted and retained either by folding said brush

into the sections of the hollow handle or by insertion through the end thereof and it has become a common practice to form folding tooth-brushes and the like having interchangeable brush sections which may be conveniently inserted in and locked with reference to the back or handle section. In such devices, so far as known, the hollow handle or casing into which the brush section is folded or inserted is opened to withdraw the brush section and when in closed position must be held firmly in the hand to prevent separation of the parts when strains are placed upon the brush in the ordinary methods of use.

It is one of the principal objects of the present invention to provide a means for positively holding the brush in extended position by utilizing the sections of the casing for locking the parts so that strains will not be transmitted in such manner as to tend to open the sections of the casing. By this arrangement, the hollow handle or casing may be held lightly in the hand, as would the handle of an ordinary tooth-brush and need not be forcibly gripped to clamp and hold the brush in extended position.

Referring to the drawings, the numeral 1 denotes the lower section of a hollow handle or casing which has hinged thereto a similarly formed section 2. At the forward end of the lower section 1 is a bifurcated member 3 which serves as a means for pivoting the handle-section 4 to the casing. The handle 4 extends into the opening 5 intermediate the bifurcations of the boss 3 and is pivoted therein upon a pin 6. The bifurcated pivot support 3 is of peculiar form and has an extension 7 which underlies the back side 8 of the handle section 4 forming a stop when the handle section and brush are in open position. It is also provided with shoulders 9, 10, which register with shoulders 11, 11' formed upon the pivotal section of the handle member 4. The pivotal section of the handle member 4, when the handle is in open position, lies between the bifurcations of the pivot support and its shoulder 11, together with the shoulders 9, and 10 form a continuous wall.

The upper casing section 2 has at its forward end an extended boss 12, the face of which, when the sections 1 and 2, are closed together, abuts against the shoulders 9, 10 and 11, and as the lower side of the handle 4 rests upon the ledge 7, the casing sections

when closed, positively lock the handle in its open position. No matter in what direction the brush is moved when in use, no sufficient strains will be transmitted to the sections 1, 2 of the casing to tend in any sense to open them. They are lightly secured together by a catch 13 which, as illustrated, has a pin 14 projecting through the casing so that it may be released to open the cover-section 2 with reference to the base-section 1. These sections 1, 2 are preferably hinged together as illustrated and form a complete closure for the brush and handle section 4.

Projecting upward from the inner face of the lower section 1 and on either side of the bifurcated pivot-support 3 are lugs 15, 15' against which the inner face 16 of the cover-section 2 abuts when the cover is closed. These permit of the casing being made of comparatively light thin material and form a direct stop in a longitudinal line with reference to the member 12. The lugs 15, 15' are preferably slightly beveled so that the casing 2 is firmly forced into position with the lug 12 pressed against the shoulders 9, 10 and 11 when the handle is open.

It is obvious that when the sections 1, 2 are separated along the line of the hinge, the brush and handle section 4 may be folded within the casing, the whole device providing a very compact, neat structure which may be formed of any desired material such as celluloid composition or any of the light materials employed in manufacturing toilet articles. It is preferred, however, to form the casing and handle section 4 of light metal so that the whole structure may be readily sterilized and will suffer no damage from immersion in hot water or sterilizing solutions.

As illustrated in the drawings, the brush is made removable with reference to the handle section 4 and the brush backing 17. The bristles 18 are preferably supported in a backing 19, the bristles and backing 19 forming a unit which may be inserted within or removed from the brush back 17. As a convenient means of holding the brush section with reference to the back, the bristle supporting member 19 is grooved as at 20 and this groove engages a slide-way 21 formed in the backing 17. The brush is locked in said slide-way by a catch 22 herein shown as a flush screw which projects through the backing 21 suitably engaged with the end 22' of the handle section 4. In lieu of a screw, any desired form of catch may be employed. This provides for a very hygienic form of folding brush and makes it particularly well adapted for use in conjunction with toilet sets and for the traveler. New brushes may be readily inserted in the holder 17 as the brush-sections become soiled or deteriorate and therefore, the purchaser may, with a single handle section, at a com-

paratively small expense, provide himself with an unlimited number of new brushes. If desired, of course, the bristles and backing may be made in one piece with reference to the handle section 4 and this handle section may be made renewable by removing the pivot 6 and inserting a new handle section in the device. In such a case, the handle-section 4 with its permanently arranged brush might be formed of celluloid composition, bone or any of the materials commonly used in brush making and these could be employed with a metallic casing. However, it is quite unnecessary to have the whole handle section 4 made renewable in as much as by forming the section 4 of the light metal, it may be readily cleansed and sterilized and will form an ample support for the brush section which consists of a suitable backing and the bristles.

By cutting away the front wall of the lower section 1 of the casing as at 23 and the front wall of the upper section 2 of the casing as at 24, a handle 4 of very substantial form may be employed without interfering with the beauty or appearance of the casing and when the casing is in closed position, these parts, in conjunction with the extended boss 12 and the lug 11' will firmly hold the brush within the casing and prevent movement and rattling thereof. It is, of course, to be presumed that the entire casing may be formed from sheet metal suitably stamped up to provide the bosses and pivot supports, etc., heretofore enumerated and when so stamped and formed up of thin metal, the casing may be embellished with any desired ornate design.

Obviously, the exact design or form of the casing is immaterial and various detail changes might be made in the construction and arrangement of the parts without departing from the spirit or intent of the invention which has as one of its principal objects a locking stop provided by the sections of the casing for taking any longitudinal thrust or strains intermediate the brush and casing which would tend to separate the sections of the casing.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a folding toilet brush a casing having a base section and a cover section hinged thereto, a boss extended from the base-section, a brush-handle pivoted thereto and provided with a locking shoulder and a lug on the cover section arranged to engage the locking shoulder of the handle section with the base and cover-section in closed position.
2. In a folding toilet brush, a casing comprising a base-section and a cover-section, a bifurcated boss extending from the base-section, a brush-handle pivoted thereto, a ledge on said boss to engage the handle section when in open position, shoulders on said

bifurcated member arranged to be engaged by the cover section and a lug on the handle section adapted to register with said shoulders and abut against the cover section when the cover and base of the casing are in closed position.

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10
15
3. In a folding toilet brush, a casing comprising a base section and a cover section, a bifurcated boss extending from one end of the base section, a brush-handle pivoted therein provided with a locking shoulder, shoulders upon the bifurcated boss registering with the locking shoulder of the handle member with the brush in extended position, a lug on the cover section forming a stop which abuts against the shoulders of the bifurcated boss and brush-handle and stop-lugs extending from the lower section of the

casing into the upper section of the casing opposite the shoulders of the bifurcated boss.

4. In a folding toilet brush, a casing having a base section and a cover section hinged thereto, a boss extending from the base section, a brush handle pivoted thereto and provided with a locking shoulder, a shoulder on the boss to limit the opening movement of the handle, and a lug on the cover section arranged to engage the locking shoulder of the handle section with the base and cover section in closed position.

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Witnesses:

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