

(No Model.)

L. T. FOSS.
TOOTH BRUSH.

No. 479,796.

Patented Aug. 2, 1892.

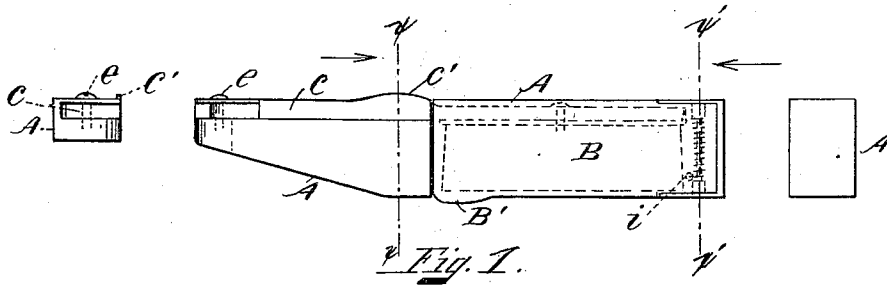


Fig. 1.

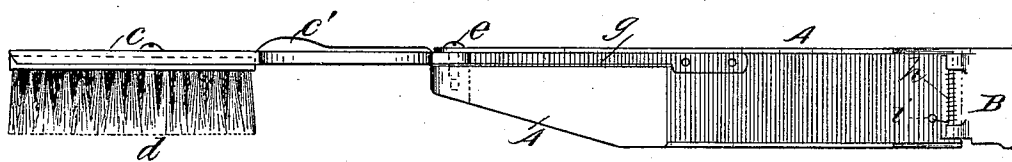


Fig. 2.



Fig. 3.

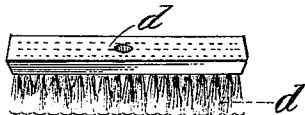


Fig. 4.

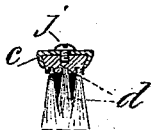


Fig. 5.

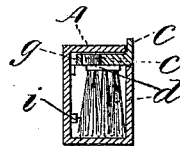


Fig. 6.

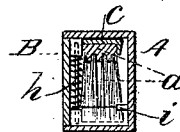


Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS T. FOSS, OF BOSTON, MASSACHUSETTS.

TOOTH-BRUSH.

SPECIFICATION forming part of Letters Patent No. 479,796, dated August 2, 1892.

Application filed September 19, 1891. Serial No. 406,234. (No model.)

To all whom it may concern:

Be it known that I, LEWIS T. FOSS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful
5 Improvement in Tooth-Brushes, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to tooth-brushes; and it consists of a combination handle and case
10 so constructed as to afford complete protection to the brush when carried in the pocket.

The object of my invention is to furnish a device by means of which a tooth-brush may, without reducing its efficiency when in use,
15 be made a convenient size and shape to be carried in the pocket, to completely protect the brush from dirt and the pocket from moisture when so carried, and to make it possible to renew the brush at slight cost.

With these ends in view my invention consists of the device shown in the accompanying drawings, referring to which—

Figure 1 is a front elevation of my device when closed, the location of the brush being
25 indicated by dotted lines. The figure at the left of Fig. 1 is a side elevation of the smaller end of the device, and the figure at the right of Fig. 1 is a side elevation of the larger end of the device, both showing the same closed.
30 Fig. 2 is a front elevation of the device when open and shows the door which covers the brush when closed also open. Fig. 3 is a perspective view of the blade of my device and shows dovetail flanges on the same designed
35 to receive and hold the brush. Fig. 4 is a perspective view of the brush when not attached to the blade. Fig. 5 is a transverse section of the brush and blade, showing the manner of securing the brush to the blade. Fig. 6 is
40 a transverse section of the device when closed. (See line *x x*, Fig. 1.) Fig. 7 is another transverse section of the device when closed. (See line *x' x'*, Fig. 1.)

Corresponding letters in the several figures
45 of the drawings designate like parts, referring to which—

A is a box-handle or case. B is a door to the same, opening outward.

C is the blade, to which the brush is secured.
50 One end of this blade is pivoted to the box-handle or case A by means of the screw *e*, which passes through the opening *f*.

d is the brush, the back of which is dovetailed to fit between the dovetail flanges of the blade C. The back of the brush slides into
55 the blade from the outer end between the dovetail flanges in the manner indicated in Fig. 5, and is held in position by means of a screw.

e is a screw by means of which the blade C
60 is jointed or pivoted to the box-handle or case A.

f is the hole in the end of the blade, through which the screw *e* passes.

g is a spring, which is riveted to the inside
65 of the box-handle or case A and is designed to hold the blade in position either open or shut. Its operation is similar to that of the spring in an ordinary pocket-knife.

h is a retaining-spring conveniently ar-
70 ranged for keeping the door B closed and for closing it when open.

i is a stop to which one end of the spring *h* is secured.

j is a screw, which retains the brush in po-
75 sition in the blade C.

It will be seen in Fig. 1 that there is a small flange on the lower edge of the door B (marked B') and a similar one on the upper side of the blade C, (marked C'.) These flanges are to
80 assist in preparing the device for use.

The method of use may be briefly described as follows: The device being closed, as seen in Fig. 1, to prepare it for use, open the door B, using the flange B'. This operation ex-
85 poses the brush within the handle A. Then open the blade outward, using the flange C'. This carries with it the brush. The device is now as shown in Fig. 2. Next release the hold on the door B, and the same is closed by the
90 spring *h*. The device is now ready for use. The case A, it will be readily seen, forms a convenient handle, and the brush can be used to advantage.

To close the device, open the door B, using
95 the flange B', and close the blade, thus inserting the brush in the handle or case. Then release the hold on the door B, and the door closes over and covers the brush. The brush is now fully
100 protected, and the whole is a convenient size and shape for carrying in the pocket.

Should it become necessary to replace the brush *d* on account of wear or for any other reason, remove the screw *j* and slide the brush

out of the blade. Then slide the new brush into the blade and replace the screw *j*.

The handle and blade are practically indestructible and can be used indefinitely; and as new brushes can be provided at a much less cost than the ordinary tooth-brush, owing to the absence of the usual handle, it will be seen that my device is economical as well as convenient.

10 The method of preparing the brush for use may be thus briefly described. Raise the door B, open the blade C, (as in opening a pocket-knife,) release the door B, which is then returned to its former position by the spring *h*.

15 It is my intention to construct the handle and blade of metal, though it may be made of other suitable material, and it may be plated or otherwise decorated to suit the taste of the owner.

20 Apart from its economy, it will be a great convenience to travelers, first, because it com-

pletely protects the brush, and, second, because when closed it is a convenient length for carrying in the pocket.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of a tooth-brush and blade held together by means of a dovetail and screw, a back spring *g*, hollow handle-case, door, and retention-spring *h*, all as shown, and 30 for the purposes set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 16th day of September, A. D. 1891.

LEWIS T. FOSS.

Witnesses:

HENRY EMERSON MACDONALD.

CHAS. A. MAYNARD.