Sept. 1, 1942. E. A. W. HABECK ET AL 2,294,747

TOOTHBRUSH

Original Filed July 17, 1939

Fig. 1.

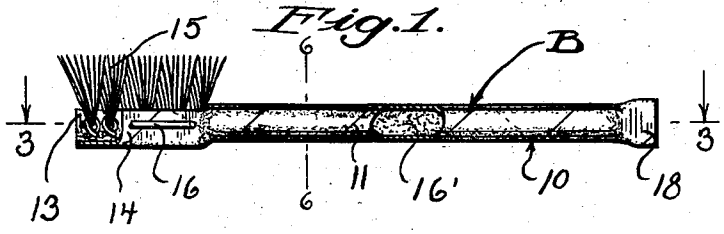


Fig. 2.

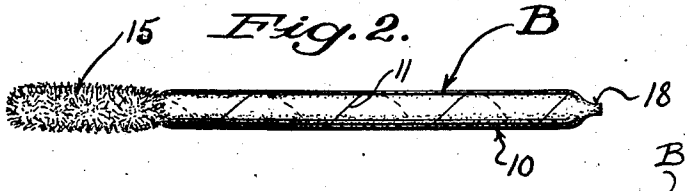


Fig. 6.

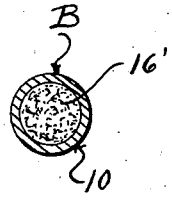


Fig. 3.

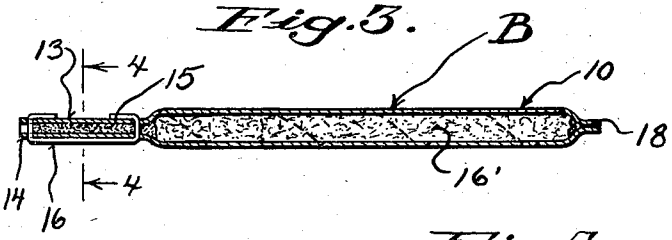


Fig. 5.

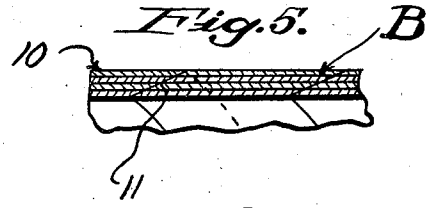
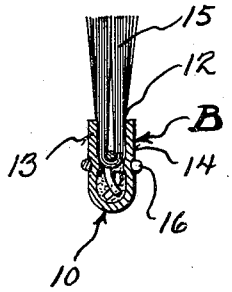


Fig. 4.



Inventors
and E.A.W. Habeck
E.T. Bessler
By
Attorneys

Patented Sept. 1, 1942 2,294,747

UNITED STATES PATENT OFFICE

2,294,747

TOOTHBRUSH

Edgar A. W. Habeck and Edward T. Bessler,
Milwaukee, Wis.

Substituted for abandoned application Serial No. 284,898, July 17, 1939. This application May 4, 1942, Serial No. 441,680

5 Claims. (Cl. 300—21)

This invention appertains to brushes, and more particularly to tooth or like brushes.

One of the primary objects of our invention is to provide a tooth brush which can be manufactured and placed upon the market at a very small cost, whereby the brushes can be disposed of after one or two uses without placing an undue burden on the user.

Another salient object of our invention is to provide a tooth brush which can be sold from coin-controlled dispensing machines placed at convenient points, whereby persons away from home can easily obtain and use the brushes.

A further important object of our invention is to provide a novel tooth brush having a waterproof hollow handle for the reception of a dentifrice, whereby the brush and dentifrice can be sold as a single article of commerce.

A still further object of our invention is to provide an economical tooth brush embodying a tubular handle formed from a waterproofed rolled or spirally wound coil of paper, with means for securing brush bristles thereto and a dentifrice therein.

With these and other objects in view, the invention consists in the novel constuction, arrangement, and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawing, in which drawing:

Figure 1 is a side elevational view of our brush, parts of the view being shown broken away and in section.

Figure 2 is a top plan view of our improved brush.

Figure 3 is a longitudinal sectional view through the brush, taken on the line 3—3 of Figure 1, looking in the direction of the arrows.

Figure 4 is an enlarged, detail, transverse, sectional view taken on the line 4—4 of Figure 3, looking in the direction of the arrows.

Figure 5 is a highly enlarged, detail, fragmentary, sectional view illustrating the coiled tubular paper handle.

Figure 6 is a transverse, sectional view taken on the line 6—6 of Figure 1, looking in the direction of the arrows.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter B generally indicates our novel brush, and the same includes a tubular handle 10.

In order to form an economical brush, the handle 10 is of a tubular construction and is formed from a rolled, spirally coiled piece of paper or cardboard. Thus, the paper can be rolled in long sections and then cut into the desired handle lengths. In lieu of winding the paper spirally (as illustrated), the paper can be rolled similar to a cigarette, as can be readily understood by those skilled in the art.

In order to form a rigid structure, the edge of the paper is beveled, as at 11, so that a scarf joint will be had. The forward end of the tubular handle is slotted, as at 12, and the handle is compressed to form wings 13 and 14, between which are positioned the brush bristles 15. The brush bristles 15 can be secured between the wings 13 and 14 in any preferred manner, such as by one or more wire staples 16, or one or more rivets. Use of the wire staple forms a convenient, quick, and economical method of securing the bristles to the handle.

As is clearly shown in Figures 1 and 3, the handle is adapted to receive dentifrice 16. The handle, in rear of the bristles is sealed, so as to prevent the leaking of the dentifrice out of the forward end of the handle and to prevent seeping of water into the handle. If preferred, an adhesive can be employed for securing the compressed part in position. The outer end of the handle can be closed by the use of a suitable stopper, or by compressing the handle, as at 18. Glue or other adhesive can be used for sealing the compressed part 18, as shown.

It is manifest that the dentifrice may be supplied in any form; as, for example, a loose powder may be charged into the handle and sealed, or the dentifrice may be in the form of a cartridge or pencil and inserted into the hollow handle, it being understood that after it is inserted, the outer end of the handle is sealed. When the brush is to be used, the seal at the outer end of the handle is broken, and the dentifrice can then be poured into the palm of the hand and then applied to the brush bristles.

It is essential that the hollow handle be waterproofed, so that the same will withstand the action of the water. This will prevent rapid deterioration of the handle during use and will, likewise, keep the dentifrice dry. Obviously, the hollow handle can be waterproofed in various manners, as is well understood by paper manufacturers. Thus, the fibers of the paper can be waterproofed during the making thereof, or the paper can be waterproofed by being impregnated with suitable material, or the paper can be coated with desirable substances, such as wax and the like. Naturally, after the paper is rolled into the

desired shape, the same can be waterproofed in any desired way.

Changes in details may be made without departing from the spirit or the scope of our invention, but what we claim as new is:

1. The method of forming a tooth brush, which consists in first forming a section of paper into a tube; second, cutting the tube into desired lengths to form handles; third, slotting the forward ends of the tubular handles; fourth, placing brush bristles in the slot; and, fifth, compressing the sides of the slotted portion into contact with the bristles and extending a fastening member through the handles and bristles.

2. The method of forming a tooth brush, which consists in, first, spirally coiling a section of paper into a tube; second, cutting the tube into desired lengths to form handles; third, slotting the forward ends of the handles; fourth, placing brush bristles in the slot; fifth, compressing the sides of the slotted portion into contact with the bristles and extending a fastening member through the handle and bristles; and, sixth, sealing the handle in rear of the bristles to strengthen the handle and to define a chamber of the desired size therein.

3. The method of forming a tooth brush, which consists in, first, rolling a section of paper into a tube having waterproof qualities; second, cutting the tube into desired lengths to form handles; third, slotting the forward ends of the handles; fourth, placing brush bristles in the slot; and, fifth, extending a fastening member through the slotted portion of the handle and bristles and compressing the sides of the slotted portion into engagement with the bristles; and, sixth, compressing and sealing the handle to form a chamber.

4. A tooth brush comprising, a waterproof, hollow, tubular handle having its forward end slotted longitudinally on one side, spaced parallel wings on the forward end of said handle on opposite sides of the slot, brush bristles disposed in the slot between said wings against the walls of the slot, a fastening element extending through the wings and the bristles clamping the wings together and the bristles in the handle, and compressed ribs on the tubular handle directly in rear of the wings, disposed in contacting relation, whereby to reinforce the handle and seal the handle from the bristle end of the brush.

5. A tooth brush comprising, a waterproof, hollow, tubular handle having its forward end slotted longitudinally on one side, spaced parallel wings on the forward end of said handle on opposite sides of the slot, brush bristles disposed in the slot between said wings against the walls of the slot, a fastening element extending through the wings and the bristles clamping the wings together and the bristles in the handle, compressed ribs on the tubular handle directly in rear of the wings, disposed in contacting relation, whereby to reinforce the handle and seal the handle from the bristle end of the brush and form a chamber in said handle, a dentifrice in said chamber, and means sealing the outer end of the handle to close said chamber.

EDGAR A. W. HABECK.
EDWARD T. BESSLER.