L. W. BULLARD.

BRUSH.

APPLICATION FILED FEB. 25, 1914.

1,111,643. Patented Sept. 22, 1914.

Fig. 1.

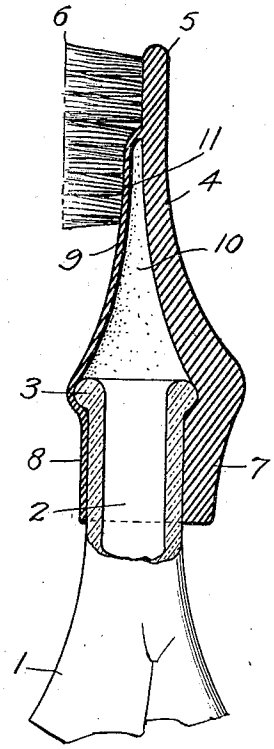


Fig. 2.

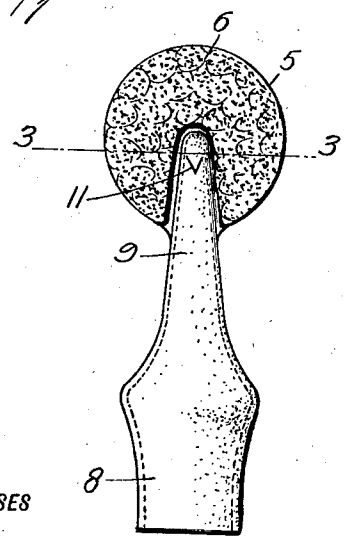
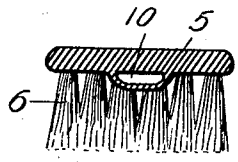


Fig. 3.



WITNESSES

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BRUSH.

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To all whom it may concern:

Be it known that I, LOUIS W. BULLARD, a citizen of the United States, and a resident of Cumberland, in the county of Allegany and State of Maryland, have invented a new and useful Improvement in Brushes, of which the following is a specification.

My invention is an improvement in brushes, and has for its object to provide a brush especially adapted for use in applying oils and other liquid lotions to the skin and for applying liquid polishes to shoes and other leather goods, wherein a brush is provided having means for engaging a bottle to connect the brush to the bottle in such manner that the contents of the bottle may pass out on to the operative face of the brush.

In the drawings:—Figure 1 is a longitudinal section of the improved brush in place on a bottle, Fig. 2 is a front view of the improved brush, and Fig. 3 is a section on the line 3—3 of Fig. 2, looking in the direction of the arrows.

The present embodiment of the invention is shown in connection with a body 1, having a neck 2, provided at the outer end thereof with the usual bead or annular enlargement 3.

The brush consists of a body or back 4, having at its outer end a semi-circular plane or disk like enlargement 5, to one face of which is secured the bristles 6. The back is shaped as shown in Fig. 1, and is of semi-rigid material, as for instance, hard rubber, and at the end remote from the enlargement 5, the said back is shaped to fit upon a bottle neck as indicated at 7.

The rigid portion of the back is of a size to inclose or engage approximately one-half of the circumference of the neck, and the other half of the said circumference is engaged by a flexible continuation 8 from the back. The said flexible continuation may be of soft rubber or other flexible and preferably resilient or elastic material, and the edges of the extension may be secured to the side edges of the back in any desired manner or the said edges may be continuous with the side edges of the back. The flexible extension 8 tapers toward the brush as indicated at 9 to form a substantially conical passage 10, leading from the open end of the bottle when the brush is in place on the bottle to approximately the center of the enlargement 5. The bristles 6 are omitted at the point where the extension passes on to the enlargement, and the said portion 9 of the extension is provided with a substantially V-shaped incision or opening 11, near its small or closed end. This incision 11 provides an outlet port for the liquid within the bottle, permitting the said liquid to discharge at approximately the center of the bristles. It will be noted from an inspection of Fig. 3, that the passage 10 tapers to a greater extent in one dimension than in the other. That is, the said passage becomes of elliptical or oblong shape as it nears the incision 11.

The material from which the back 4—5—7 of the brush is composed is not entirely rigid, being merely of sufficient stiffness to hold its shape and to return to its original shape when deformed. The said back is preferably of thick heavy pliable rubber, while the portion 8—9 is of thin soft rubber, so that the socket of the brush, namely, that portion which engages the neck of the bottle may be engaged with bottle necks of different size and shape.

The incision or opening 11 is normally closed, until pressure is brought to bear upon the brush. When pressure is brought to bear upon that portion of the extension adjacent to the opening, the sides of the V-shaped incision will be moved laterally with respect to each other to provide an opening for the escape of the liquid through the said opening and the bristles of the brush.

The improved brush is composed in effect of a handle in the form of a tubular member or socket and a brush, the tubular handle or socket having a valved opening at approximately the center of the brush so arranged as to be opened when the brush is in use, that is, when pressure is brought to bear upon the brush.

The improved brush is especially designed for use in applying lotions to the face or to the body, and it will be evident that when so used, the lotion will not be wasted and every portion thereof that leaves the bottle will be properly applied to the skin. The brush is also particularly adapted for applying polishes to leather or to other goods without the necessity of soiling the fingers.

The improved brush is molded from rubber, and both portions are resilient to a certain extent. The back is of rubber having a thickness of about one-eighth of an inch, while the flexible portion 8 is of very thin

rubber. That is, the entire handle is of rubber, including the socket and in fact every portion of the brush except the bristles.

I claim:—

1. A brush of the character specified, comprising a handle of tubular form and having at one end a socket for tightly engaging around the neck of a bottle, the handle consisting of a back and front section of approximately equal size, the back section being semi-rigid and pliable, and the other section being flexible, the handle having an enlargement at the opposite end from the socket, said enlargement being in the plane of the junction of the sections, bristles extending from the face of the enlargement adjacent to the flexible section of the handle, said flexible section having a substantially V-shaped incision at approximately the center of the bristles for permitting the passage of liquid from the socket when the material of the said section is pressed inward, said incision leading from the interior of the handle.

2. A brush of the character specified, comprising a handle of tubular form and having at one end a socket for tightly engaging around the neck of a bottle, the handle consisting of a back and front section of approximately equal size, the back section being semi-rigid and pliable, and the other section being flexible, the handle having an enlargement at the opposite end from the socket, said enlargement being in the plane of the junction of the sections, bristles extending from the face of the enlargement adjacent to the flexible section of the handle, the flexible section of the handle having a port at approximately the center of the bristles, the side walls of the port being normally in contact to close the port, but being movable laterally with respect to each other when pressure is exerted upon the bristles to open the port.

3. A brush of the character specified, comprising a handle of tubular form and having at one end a socket for tightly engaging around the neck of a bottle, the handle consisting of a back and a front section of approximately equal size, the back section being semi-rigid and pliable, and the other section being flexible, the handle having an enlargement at the opposite end from the socket, said enlargement being in the plane of the junction of the sections, bristles extending from the face of the enlargement adjacent to the flexible section of the handle, the flexible section of the handle having a port at approximately the center of the bristles.

4. A brush of the character specified, comprising a handle having at one end a socket provided with a flexible portion and adapted to engage the neck of a bottle, said handle having at the opposite end from the socket a plane enlargement and having bristles on one face of the enlargement, the handle having a port within the area covered by the bristles.

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Witnesses:

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