Sept. 25, 1928. 1,685,526

O. D. EARON

LATHER BRUSH

Filed Oct. 18, 1926

Fig. 1

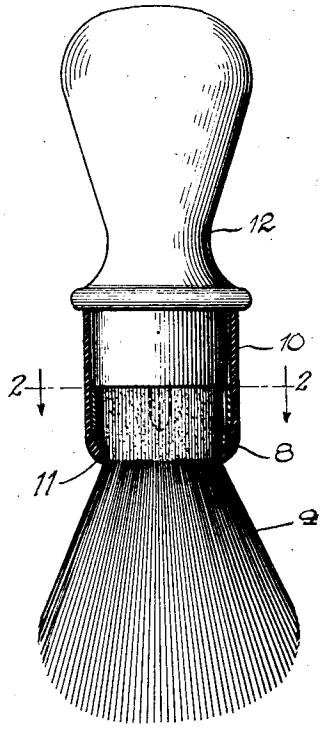


Fig. 2

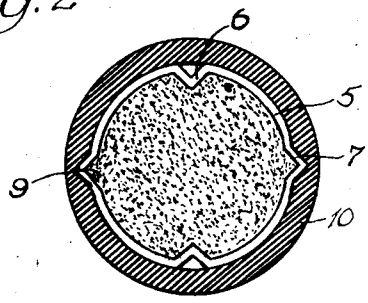


Fig. 3

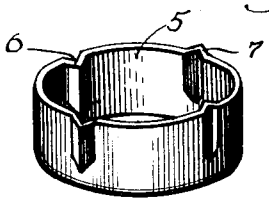
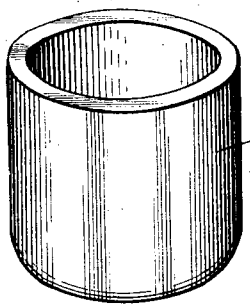


Fig. 4



Inventor
Orville D. Earon
By Fred Gerlach Atty.

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UNITED STATES PATENT OFFICE.

ORVILLE D. EARON, OF MONTCLAIR, NEW JERSEY, ASSIGNOR TO ISABEL EARON, OF MONTCLAIR, NEW JERSEY.

LATHER BRUSH.

Application filed October 18, 1926. Serial No. 142,262.

The invention relates to round rubberset brushes, and more particularly to lather or shaving brushes.

It is now common practice in the manufacture of brushes to set the butt end of a knot of bristles in rubber, and then draw the knot through a metal ring of smooth bore, until the butt end is flush with the outer edge of the ring. The knot and ring are then placed upon a steam table and the rubber vulcanized. After the latter operation, the working end of the knot of bristles is passed through a ferrule made of pyroxylin or any other suitable material and the knot is driven through until the ring jambs in the ferrule. In the use of these brushes, the vulcanized knot of bristles often becomes loose and rotates or slips longitudinally in the metal ring, or the ring becomes loose and rotates in the ferrule.

The object of the present invention is to provide a rubberset brush in which simple inexpensive and novel provision is made for securing the knot of bristles against rotation and longitudinal movement in the ring and for securing the ring against rotation in the ferrule.

The invention consists in the several novel features hereinafter set forth and more particularly defined by the claims at the conclusion hereof.

In the drawing: Fig. 1 is an elevation of a brush embodying the invention, parts being shown in section. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a perspective of the ring in which the bristles are secured. Fig. 4 is a perspective of the ferrule.

In the manufacture of brushes, according to the present invention, a knot or group of bristles 4 is set in rubber or any other suitable and similar material, and then drawn through a cylindrical metallic ring 5 until the end of the bristles set in the rubber is flush with the outer edge of the ring. This ring is formed of slightly resilient material and has indented therein adjacent its outer end, a pair of teeth 6 and a pair of teeth 7. The teeth of each pair are V-shape in cross section and extend longitudinally. Teeth 6 extend inwardly and are disposed diametrically opposite each other. Teeth 7 extend outwardly and are disposed at right angles to teeth 6. The inner edge of ring 5 is flared inwardly as at 8. To set the bristles, the rubber is vulcanized by applying steam to the ring and the butt end of the knot. During the vulcanizing process the rubber flows around teeth 6 and into the cavities 9 of teeth 7. The rubber also flows between the flared portion 8 and the inner ends of teeth 6. When the rubber hardens, the portion of the setting which extends into the cavities 9 and around the teeth 6 will securely lock the knot against rotation in the ring, and the porion of the setting which extends between the flared portion 8 and the inner ends of teeth 6 will securely lock the knot against longitudinal movement.

To complete the brush, the vulcanized knot is inserted into a ferrule or annular brush body 10 which is formed of pyroxylin or any other suitable material. The knot is forced through until the ring is positioned in the ferrule, as shown in Fig. 1. The upper end of ferrule 10 has a bore which corresponds to the outer periphery of ring 5, and the lower end of the ferrule is constricted, as at 11, to form a seat or shoulder for the flared portion 8 of the ring 5 so that the ring can not pass through the ferrule. During the forcing operation, teeth 7 dig into and imbed themselves in the sides of the ferrule so as to secure the ring in the desired position and to hold it against rotation in the ferrule. After ring 5 has been forced into position, a suitable adhesive or cement is poured into the ferrule and a handle 12 which has an extended portion, is secured therein.

The invention exemplifies a lather brush in which novel provision is made for securing the knot and ring against relative rotation and longitudinal movement, and for securing the ring against rotation in the ferrule or brush body.

This application is, in part, a continuation of an application Serial No. 57,500, filed by me September 21, 1925.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a lather brush, the combination of an annular body, a ring in the body, a knot of bristles having one end thereof in the ring, said ring being provided with an outwardly extending tooth imbedded in the body to rigidly secure the ring against rotation relative-

ly to the body, and a handle secured to the body.

2. In a lather brush, the combination of an annular body, a ring in the body, a knot of bristles having one end thereof in the ring, said ring having indented therein a pair of outwardly extending teeth, the teeth being imbedded in the body to secure the ring against rotation relatively to the body, and a handle secured to the body.

3. In a lather brush, the combination of an annular body, a ring in the body, a knot of bristles having one end thereof in the ring, said ring having indented therein a longitudinally extending tooth, the tooth being V-shape in cross-section and imbedded in the body to secure the ring against relative rotation, and a handle secured to the body.

4. In a lather brush, the combination of an annular body, a ring in the body, bristles having one end thereof secured together by binding material and disposed in the ring, said ring having an outwardly extending tooth and an inwardly extending tooth, the outwardly extending tooth being imbedded in the body to secure the ring against rotation, the inwardly extending tooth being imbedded in the material to secure the bristles against rotation, and a handle secured to the body.

5. In a lather brush, the combination of an annular body, a ring in the body, bristles having one end thereof secured together by binding material and disposed in the ring, said ring having indented therein a pair of outwardly extending teeth and a pair of inwardly extending teeth, said pairs of teeth extending at right angles to each other, the outwardly extending teeth being imbedded in the body to secure the ring against rotation, the inwardly extending teeth being imbedded in the material to secure the bristles against rotation, and a handle secured to the body.

6. In a lather brush, the combination of an annular body, a ring in the body, bristles secured together at one end by binding material, said one end of the bristles being disposed in the ring, said ring having struck therein an outwardly extending tooth, said tooth being imbedded in the body to secure the ring against rotation, a portion of the material extending into the cavity in the ring resulting from the formation of the tooth to secure the bristles against rotation relatively to the ring, and a handle secured to the body.

Signed at Montclair, New Jersey, this 13th day of October, 1926.

ORVILLE D. EARON.