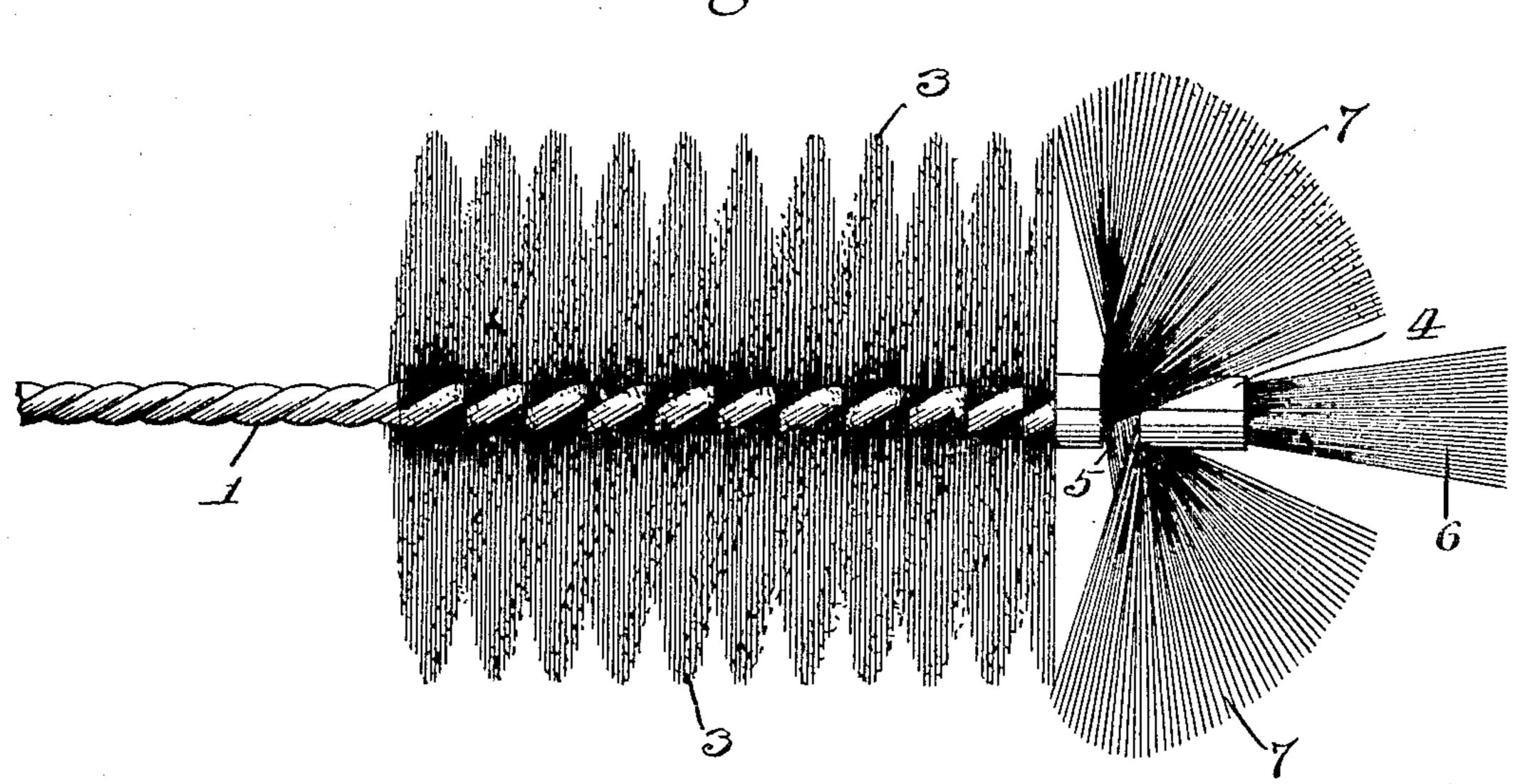
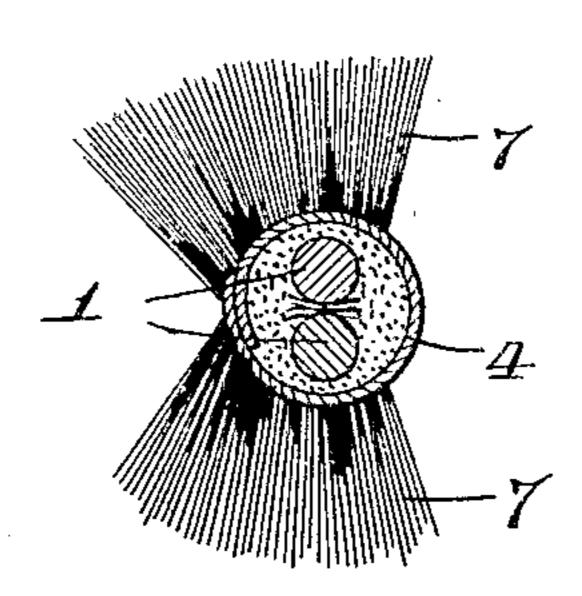
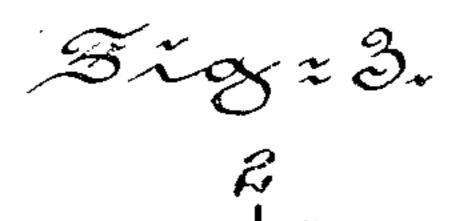
H. COOPERMAN. BOTTLE BRUSH. APPLICATION FILED JAN. 30, 1906.

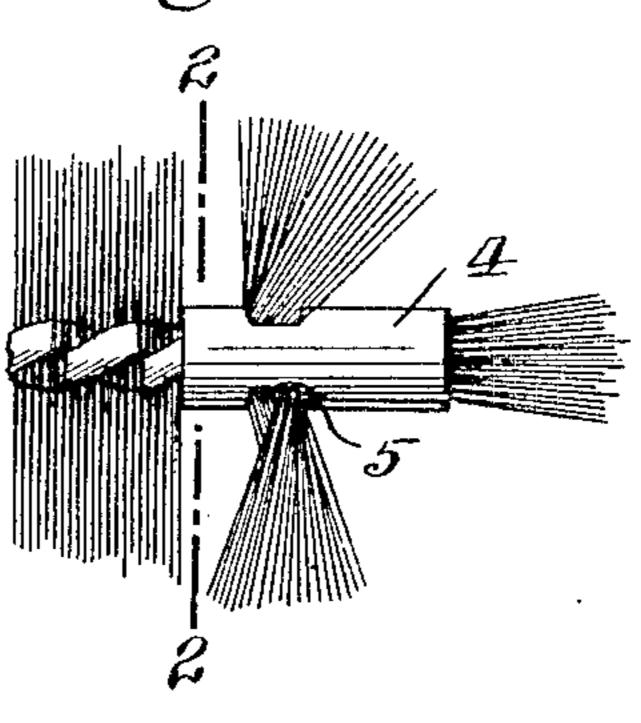
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UNITED STATES PATENT OFFICE.

HARRY COOPERMAN, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE-BRUSH.

No. 871,786.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed January 30, 1906. Serial No. 298,599.

To all whom it may concern:

Be it known that I, HARRY COOPERMAN, a city and county of Philadelphia, in the State 5 of Pennsylvania, have invented certain new and useful Improvements in Bottle-Brushes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which-

This invention relates to brushes, my object being to provide a brush of simple and efficient construction whereby the bristles

thereof may be held in place.

The invention relates especially to brushes 15 having a long round body portion; and, as generally stated, the invention consists in providing means whereby bristles may be held in place to form, substantially, a round end for the brush, as will be hereinafter more 20 fully described and claimed.

In the drawings—Figure 1 is a side elevation of a brush embodying my invention. Fig. 2 is a sectional detail, as on the line 2—2 of Fig. 3. Fig. 3 is a detail of the right | 25 hand end of the brush, as seen from the side opposite to that shown in Fig. 1. Fig. 4 is a perspective view of the U-shaped piece of metal from which the tube is formed.

1 designates an elongated core and 3 30 bristles extending therefrom and forming a round brush body. Surrounding one end of the core 1 adjacent to the end of the round brush body 3 is a tube 4 having an opening

5 in the side wall thereof.

Extending out through one end of the tube 4 is a bunch of bristles 6 forming the end of the brush, and extending out through the opening 5 are bristles 7 which are so arranged that their outer ends extend from the 40 end of the brush body 3 to the outer end of the bunch of bristles 6, or substantially so, thereby forming a brush having a long body portion and a rounded end.

The bristles 6 and 7 are secured to the 45 core 1 and are held in place by the tube 4. The bristles 7 are divided into two parts, and the parts are arranged on the respective sides of the brush, as shown. One-half of the mass of bristles 7 on each side of the 50 brush extends from between the inner wall of the tube 4 and the outer face of the core 1 on one side of the opening 5, and the other half of the mass of bristles on each side of the brush extends from between the inner wall

of the tube 4 and the outer face of the core 1 55 Be it known that I, HARRY COOPERMAN, a on the other side of the opening 5. This citizen of the United States, residing at the method of holding the bristles 7 in place causes the mass of bristles on each side of the brush to flare outwardly and assume spiral-like forms, and thereby substantially 60 connect the brush body 3 with the end bunch of bristles 6.

> In the present embodiment of my invention, the core 1 is made of two twisted wires between which the bristles of the brush are 65 securely held, this means of securing the bristles being common and well known in this art.

In constructing a brush in accordance with my invention I, preferably, make the tube 70 from a piece of sheet metal and first bend it into U-shaped form as shown in Fig. 1. The U-shaped form is then applied to the core 1 and bristles 6 and 7, and the edges of said form bent to meet and overlap each other 75 to form the tube 4.

I claim—

1. In a brush, a core, a tube having an opening in the side wall thereof, bristles projecting through said opening and from be- 80 tween the inner wall of the tube and the outer face of the core, on one side of said opening; and bristles projecting through said opening and from between the inner wall of the tube and the outer face of the core 85 on the other side of said opening, whereby the mass of bristles is caused to assume a flaring, spiral-like form, substantially as described.

2. In a brush, a core, a tube having an 90 opening in the side wall thereof, bristles projecting through said opening and from between the inner wall of the tube and the outer face of the core, on one side of said opening; bristles projecting through said 95 opening and from between the inner wall of the tube and the outer face of the core on the other side of said opening, whereby the mass of bristles is caused to assume a flaring, spiral-like form, and a bunch of bristles ex- 100 tending out through one end of the tube, substantially as described.

In testimony whereof, I have hereunto affixed my signature.

HARRY COOPERMAN.

Witnesses:

WM. H. SMITH, Walter C. Pusey.