

P. J. McCARTHY.

BATH BRUSH.

APPLICATION FILED AUG. 8, 1904.

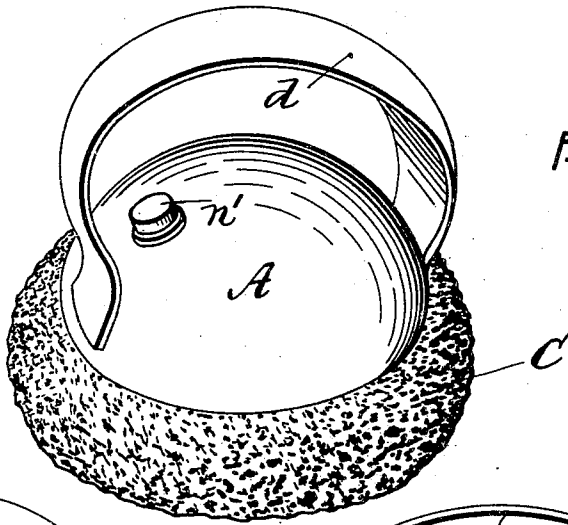


FIG. 1.

FIG. 3.

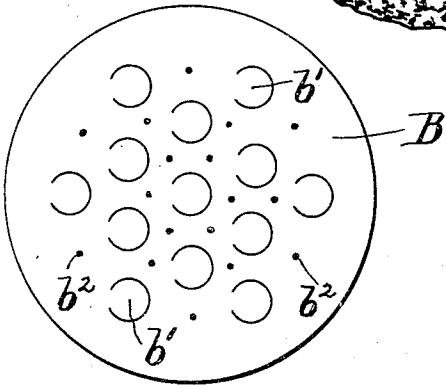


FIG. 2.

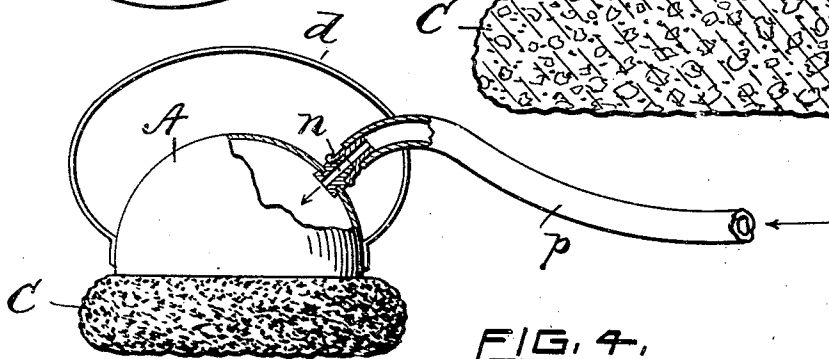
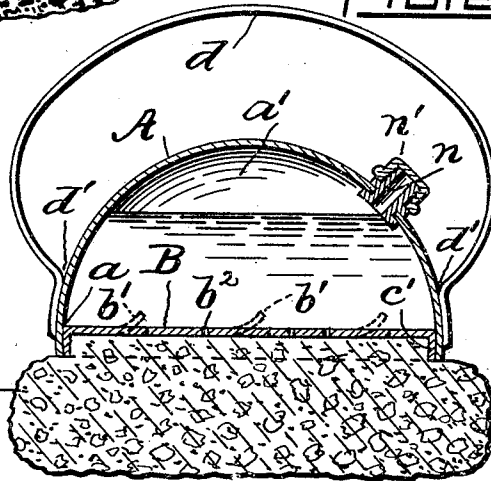


FIG. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

PATRICK J. McCARTHY, OF PROVIDENCE, RHODE ISLAND.

BATH-BRUSH.

SPECIFICATION forming part of Letters Patent No. 792,278, dated June 13, 1905.

Application filed August 8, 1904. Serial No. 220,027.

To all whom it may concern:

Be it known that I, PATRICK J. McCARTHY, a citizen of the United States, residing at the city of Providence, in the county of Providence and State of Rhode Island, have invented a certain new and useful Improvement in Bath-Brushes, of which the following is a specification.

My invention relates to a flexible bath-brush having a porous rubbing-surface, a water-chamber, and means to retain the water above the rubbing-surface for an increased length of time during its passage to the rubbing-surface of the brush.

The invention consists of the novel construction and combination of parts, as herein-after described, and specifically set forth in the claims.

In the accompanying sheet of drawings, Figure 1 represents a perspective view of my improved bath-brush. Fig. 2 is a vertical cross-sectional view of the bath-brush. Fig. 3 is a top plan view of a disk which forms the means for retaining the water within the bath-brush, and Fig. 4 is a view of the bath-brush as secured to a flexible pipe which receives water under pressure.

Like characters indicate like parts.

My improved bath-brush is made entirely of rubber.

A represents the back or shell of the brush, and which shell is of a semispherical form in cross-section.

B is a thin disk whose edge is secured upon the interior surface of the shell A and near to its edge thereof, as at a point *a*, so that a chamber *a'* is provided between said shell and said disk, as seen in Fig. 2.

The disk B is slitted so as to form a series of tongues, as at points *b'* *b'*, and said disk is provided with fine perforations formed in its body portion, as at points *b²* *b²* in Fig. 3.

C represents a soft porous-rubber pad, which forms the rubbing portion of the brush and which portion is of a circular form having a flat top surface to adjoin the bottom surface of the disk B, and this portion C of the brush has the upper part of its side secured to the disk B, as at a point *c'* in Fig. 2.

The back or shell of the brush has a suitable

handle in the form of a strap *d*, whose ends are secured upon said shell, as at points *d'* *d'*.

To use the brush, the bather inserts his hand between the strap *d* and shell A and then compresses the brush so as to draw its opposite sides together, after which he immerses the pad portion C in the water and then releases his grasp upon the shell, which as it expands to its normal position again causes a suction to take place, whereby the water in passing through the porous rubber C forces upwardly each of the tongues or valves *b'* of the disk B to the position indicated by dotted lines in Fig. 2 and allowing the water to enter and fill up the chamber *a'* in the back or shell of the brush. After the brush has thus been filled with water the tongues or valves *b'* immediately close their port-openings by reason of the water-pressure in the chamber *a'*, and each tongue or valve rests upon the top flat surface of the pad C. The bather now presses upon the sides of the brush, and which movement causes the water to force through the perforations *b²* *b²* of the disk B and thence saturating the porous pad C. Thus the brush gives off what water may be required in proportion to the pressure exerted upon it by the bather.

From this description it will be observed that the ports of the valves *b'* form the inlet-passages for the water to fill up the chamber *a'* when the brush is compressed and submerged in water to receive a supply and that the fine perforations *b²* retard the passage of the water from the chamber after the brush has been filled, and these perforations form the sole outlet-passages for the water when the brush is compressed for use.

Instead of applying a hand-pressure upon the brush in order to force the water through its rubbing-surface, as described, the back or shell of the brush is provided with a short tube or nipple *n*, properly secured to said shell and provided with an exterior screw-threaded surface for attaching thereto the end of a rubber pipe *p*, whose opposite end is secured to a faucet, (not shown,) which gives off water under pressure in the manner shown in Fig. 4.

When the brush is not used by water-pres-

sure from a faucet, a cap *n'* is secured to close the threaded end of the nipple.

In the construction of my bath-brush I do not wish to confine myself to having the part
5 C made of rubber, as said part may be of sponge without in any way sacrificing the advantages of my invention.

What I claim, and desire to secure by Letters Patent, is—

- 10 1. In a bath-brush, the combination, of a hollow elastic back or shell; an elastic disk secured to the shell so as to provide a water-chamber between said parts, said disk having a series of ports which form inlet-passages and
15 integral tongues or valves to close the same, and said disk provided with fine perforations which form discharge-passages surrounding its valves; a pad of elastic porous material secured upon the outer surface of said disk and
20 having a flat face for the valves of the same to normally rest against; a nipple properly secured to the back or shell and having a projecting exterior screw-threaded portion and said nipple provided with a water-passage com-
25 municating with the chamber of said shell, and a cap having an interior screw-threaded sur-

face to engage the threaded portion of said nipple in closing the water-passage of the same, substantially as set forth.

2. In a bath-brush, the combination, of a
30 hollow elastic back or shell; an elastic disk secured to the shell so as to provide a water-passage between said parts, said disk having a series of ports which form inlet-passages and integral tongues to close the same, and said
35 disk provided with fine perforations which form discharge-passages surrounding its valves; a nipple properly secured to said back or shell and projecting therefrom, and said nipple provided with a water-passage there-
40 through and entering the chamber of said shell; a flexible pipe arranged to connect with said nipple and adapted to receive water under pressure, and a pad of porous material secured upon the outer surface of said disk, substan-
45 tially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

PATRICK J. McCARTHY.

Witnesses:

CHARLES A. SLATTERY,
OLIN HILL.