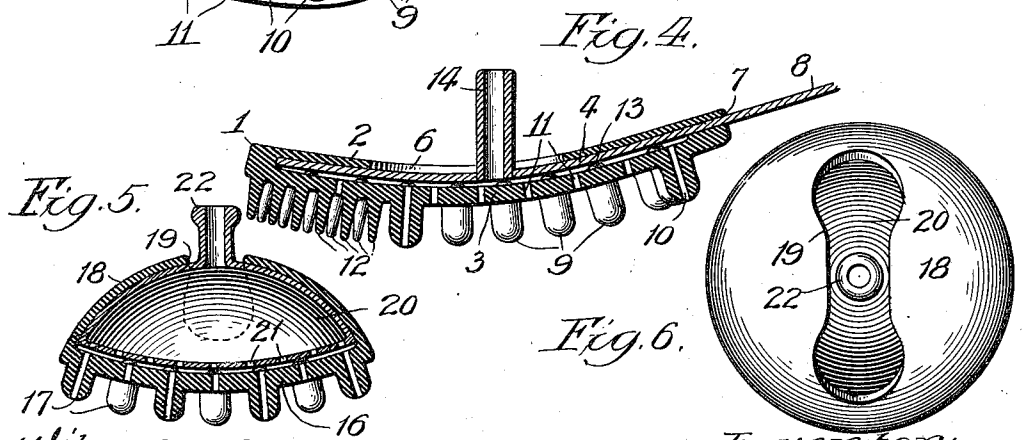
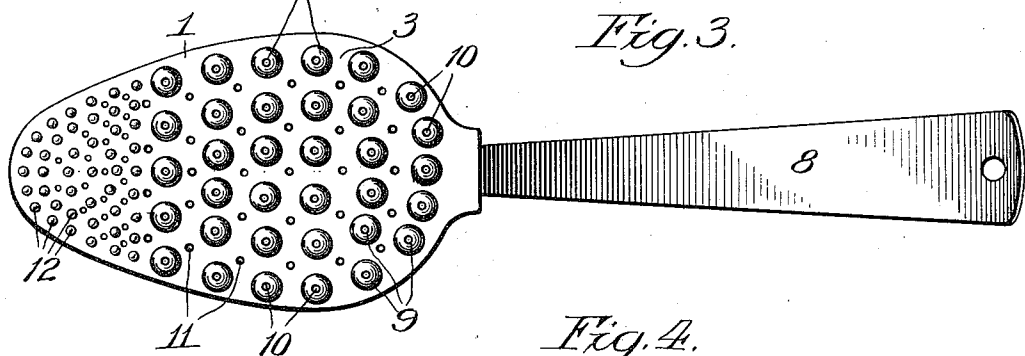
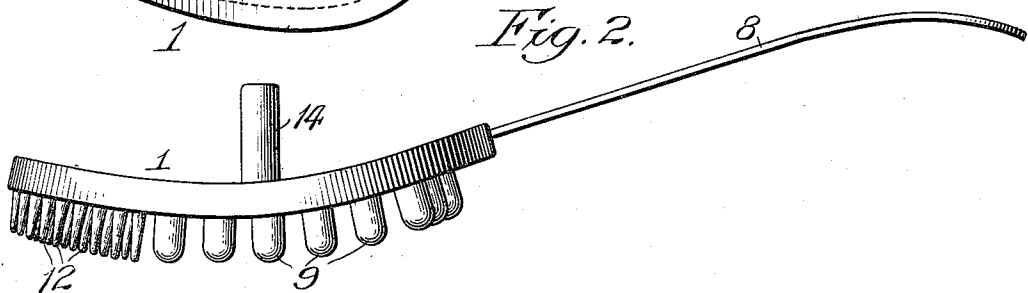
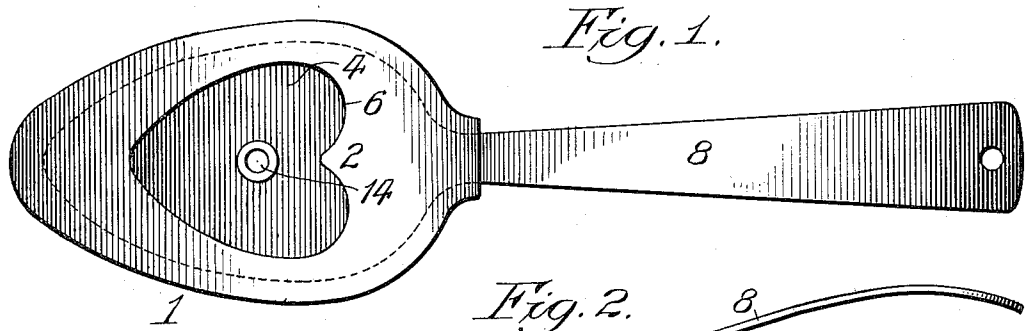


B. D. KNICKERBOCKER.
 MASSAGE BRUSH.
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1,012,653.

Patented Dec. 26, 1911.



Witnesses:

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 Chas. H. Buell

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UNITED STATES PATENT OFFICE.

BURTON D. KNICKERBOCKER, OF CHICAGO, ILLINOIS.

MASSAGE-BRUSH.

1,012,653.

Specification of Letters Patent.

Patented Dec. 26, 1911.

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To all whom it may concern:

Be it known that I, BURTON D. KNICKERBOCKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Massage-Brushes, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide a flexible brush to be used more especially for massaging the face, said brush being so constructed that it will readily adapt itself to the various abrupt curves and depressions, including the delicate parts around the eyes, either with or without the accompanying flow of liquid through it.

To these ends my invention consists in the combination of elements hereinafter more particularly described and definitely pointed out in the claims.

In the drawings, Figure 1 is a plan view of the back of a brush embodying the features of my invention, the same being enlarged about one half more than the actual size recommended; Fig. 2 is a side elevation; Fig. 3 is a bottom view; Fig. 4 is a central longitudinal sectional view; Fig. 5 is a central vertical sectional view of a modified construction, and Fig. 6 is a plan view thereof.

Referring to the drawings, 1 represents generally the body of my improved brush, which consists of a hollow case formed from india rubber or other flexible material having a top portion 2 and a base portion 3, Fig. 4, connected at the edges, but otherwise separated to provide a space between them for the reception of a metal plate or form 4, which is intended, among other things, to impart stiffness to the brush body. The part 2 of the latter is provided with a heart-shaped or other opening 6, Figs. 1 and 4, for the insertion of the rigid form and an opening 7 for the reception of the handle 8.

In order to insert the form the rear end of the handle is projected from toward the forward end into the opening 6 and thence back through the handle opening 7, until the enlarged part of the metal body enters the opening 6. The material in which the latter opening is formed, is then stretched sufficiently to permit the front end of the form

to enter the cavity, when the parts assume the relative positions and appearance best shown in Figs. 1 and 4.

I prefer to make the body of the brush of an oval shape similar to that of the bowl of a spoon, as shown, with the body of the form 5 shaped to conform thereto; said body being straight in cross-section but curved longitudinally so as to impart a like curve to the brush body.

The main body of the brush from the rear to near the forward end is provided with a series of rounded teeth or conoidal shaped projections 9, which are provided with bores or passages 10 extending from the chamber beneath the form 4 to the outer ends. A series of openings 11 is formed between the teeth for the passage of liquid. Upon the forward portion of the brush is formed a series of teeth 12 of substantially the same length as that of the others, but smaller in cross-section.

Upon the inner face of the part 3 next to the metal plate, is formed a series of knobs or projections 13, Fig. 4, for the purpose of providing a slight space between said plate and the part 3.

The plate or form 4 is provided with an opening at or near the center, into which is secured a tube 14 for the purpose of forming a connection with a flexible hose.

In the construction above described, I prefer in practice to make the brush about one third smaller than that illustrated. The teeth 12 are located at the small end and are admirably adapted for massaging around the eyes and more delicate parts of the face.

In using my improved brush the liquid enters through the tube 14 into the space between the lower face of the form 4 and the part 3, said space being maintained by means of the projections 13, thereby enabling the liquid to spread throughout the space beneath the form and to be projected through and between the teeth.

In Figs. 5 and 6 I have shown a modification of said invention in which the part 16, forming the body of the brush is made of similar elastic material and circular in form instead of oval, with the tubular conoidal shaped teeth 17. The elastic back 18 is semi-spherical in shape and is provided with an elongated opening 19 to permit the insertion of a hollow metal shell 20 having openings

21 in that part of it which lies next to the part 16. A nipple 22 is provided for the reception of a hose.

5 In the examples above described the flexible casing is held so closely against the periphery of the metal form as to force all of the liquid through the openings provided therefor and to prevent leakage around the edges.

10 Having thus described my invention, I claim:—

1. A brush comprising in combination a body and teeth formed from soft elastic material said body having a cavity therein
15 for the reception of a rigid plate with openings therein through the portion upon which the teeth are formed, a rigid plate fitted within said cavity and means for causing a separation between the face of said plate
20 and that of said body portion within said cavity, said plate being provided with a tubular opening therein in communication with the space between the inner face of

said plate and that of said body caused by said separating means.

2. A brush comprising in combination a
25 body and teeth formed from soft elastic material, said body having a cavity formed therein for the reception of a rigid plate, with openings therein through the portion
30 upon which the teeth are formed, a plurality of projections within said cavity, a rigid plate fitted within said cavity, having one face bearing against said projections said
35 plate being provided with a tubular opening therein in communication with the space between said body and plate adjacent to said
projections.

In testimony whereof, I have signed this specification in the presence of two subscrib-
40 ing witnesses, this 19th day of October 1909.

BURTON D. KNICKERBOCKER.

Witnesses:

D. H. FLETCHER,
CARRIE E. JORDAN.