July 29, 1941. P. QUARANTI 2,250,878

SHAMPOO BRUSH

Filed June 8, 1940

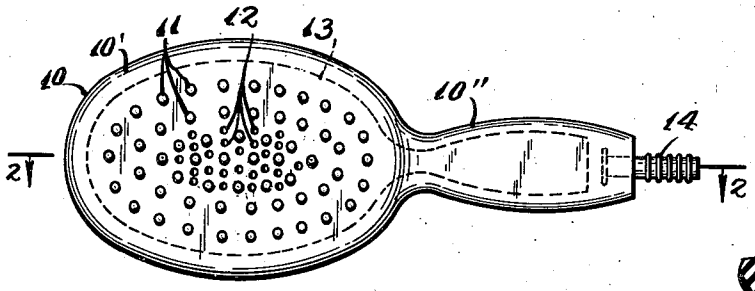


Fig. 1.

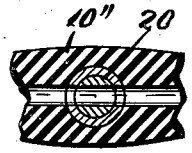


Fig. 5.

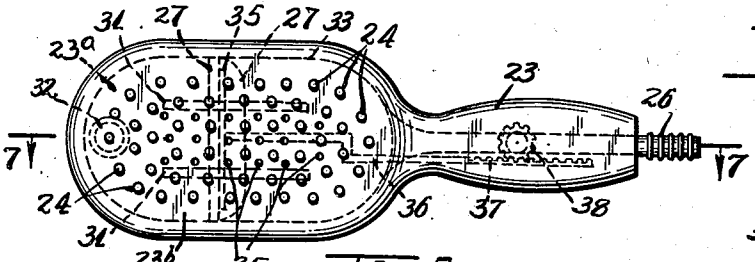


Fig. 6.

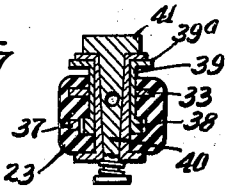


Fig. 8.

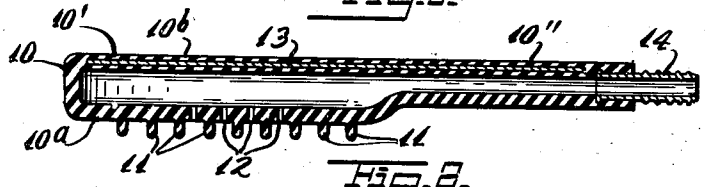


Fig. 8.

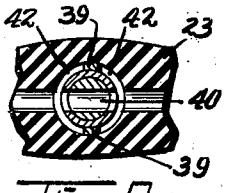


Fig. 9.

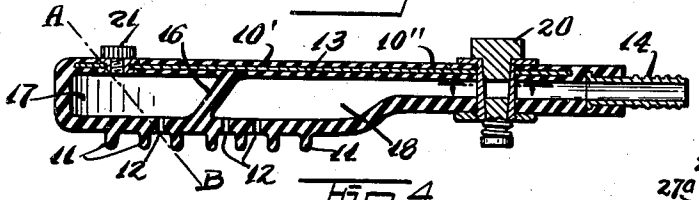


Fig. 4.

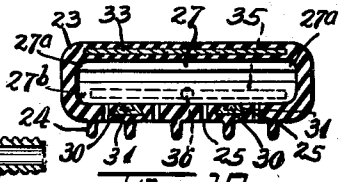


Fig. 10.

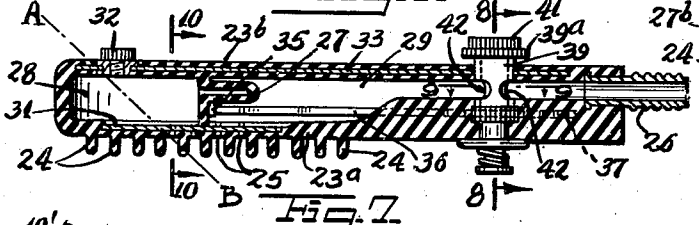


Fig. 7.

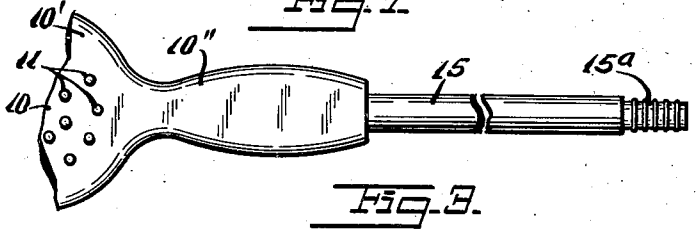


Fig. 3.

INVENTOR
Philip Quaranti
BY Zoltan Holochek
ATTORNEY

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SHAMPOO BRUSH

Philip Quaranti, Bronx, N. Y.

Application June 8, 1940, Serial No. 339,555

7 Claims. (Cl. 15—129)

This invention relates to new and useful improvements in a shampoo brush.

The invention has for an object the construction of a shampoo brush which is characterized by a hollow brush body having a flexible front wall provided with a plurality of massaging nipples and passages through said wall among the nipples, and a pipe nipple on said body for a water supply to the interior of the body. With this shampoo brush it is possible to shampoo one's body while water is flowing through the brush body and out of the passages around the massaging nipples.

Still further the invention contemplates a novel arrangement for stiffening the brush body so that it maintains its formation during the massaging operation.

Still further the invention contemplates the provision of a handle extension for the brush body to facilitate massaging one's back.

Another object of the invention resides in a modification in which the brush body has a flexible partition dividing it into two compartments, one for liquid shampoo material and the other for water.

Still further the invention proposes a novel arrangement for controlling the passage of water through the body.

Another object of the invention is the provision of a flexible partition within the hollow of said body and extending from the back wall thereof and movably connected with the front wall, dividing off the separate compartments for the shampoo and water, and furthermore proposes means for forcing the front edge of said partition over and across certain of said passages.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a front view of a shampoo brush constructed in accordance with this invention.

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary front view similar to Fig. 1 but illustrating a brush of modified construction.

Fig. 4 is a vertical sectional view similar to Fig. 2 but illustrating another brush of modified construction.

Fig. 5 is a horizontal sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is an elevational view similar to Fig. 1 but illustrating a shampoo brush embodying another form of this invention.

Fig. 7 is a sectional view taken on the line 7—7 of Fig. 6.

Fig. 8 is a vertical sectional view taken on the line 8—8 of Fig. 7.

Fig. 9 is a horizontal sectional view taken on the line 9—9 of Fig. 7.

Fig. 10 is a transverse sectional view taken on the line 10—10 of Fig. 7.

The shampoo brush, in accordance with the form of the invention illustrated in Figs. 1 and 2, includes a hollow brush body 10 having a flexible front wall 10^a provided with a plurality of massaging nipples 11 and passages 12 through said wall 10^a among said nipples 11. The brush body 10 preferably is molded from rubber material. The back wall 10^b is suitably reinforced. A stiffening plate 13 of sheet metal or other rigid material is molded into the wall 10^b. A pipe nipple 14 is mounted on the body 10 for a supply of water to the interior of the body.

The body 10 is fashioned to have a head portion 10' and a handle portion 10''. The pipe nipple 14 is molded into the free end of the handle portion 10''. The massaging nipples 11 comprise small projections integral with the material of the front wall 10^a.

In Fig. 3 a modified form of the invention has been disclosed which distinguishes from the prior form in the fact that a rigid tube 15 extends from the handle 10''. This tube 15 is provided with a pipe nipple 15^a at its outer end for receiving the end of a flexible water supply pipe. In other respects this form of the invention is similar to the prior form.

In Figs. 4 and 5 another form of the invention is disclosed which is very similar to the form shown in Figs. 1 and 2, distinguishing in the fact that a transverse partition 16 divides the head portion 10' of the body in two, dividing off a compartment 17 and another compartment 18. The compartment 18 is connected with the handle portion 10'' and thus with the pipe nipple 14. A control valve 20 is interposed in the passage through the handle for controlling the supply of water to the compartment 18.

A removable plug 21 is mounted on the rear wall of the body 10. This plug may be removed so that there is an opening through which shampooing liquid may be placed into the compartment 17. It is necessary that the body 10 be tilted

upwardly so that the shampooing liquid will fill that area of the compartment to the left of the line AB. The plug 21 is then replaced and the shampooing brush is ready to be used. The brush is tilted so that the shampooing fluid gradually flows out of certain of the openings 12. Simultaneously, water is flowing out of the other openings and in this manner the shampoo operation is carried on.

In Figs. 6–10 inclusive another modified form of the invention has been disclosed which distinguishes from the prior form in an arrangement for controlling the relative discharge of the shampooing liquid and water. In accordance with this form of the invention the shampooing brush includes a hollow brush body 23 having a flexible front wall 23a provided with a plurality of massaging elements or nipples 24 and passages 25 extended through the wall 23a among the massaging elements or nipples 24. A pipe nipple 26 is mounted on the body 23 for a supply of water to the interior of the body.

A flexible and elastic partition 27 is disposed within the hollow of the body 23 and extends from the back wall 23b thereof, and is movably connected with the front wall 23a thereof dividing off separate compartments 28 and 29. The partition 27 is integral with the back wall 23b along its back edge. Along its side edges 27a it is integral with the side walls of the body 23. The front edge of the partition 27 is formed with several dove-tailed tongues 30 which engage into metallic dove-tailed tracks 31 mounted along the inner face of the front wall 23b. A sheet of metal or other stiffening material 33 is embedded along the back wall 23b for stiffening the same.

A removable plug 32 is mounted on the back wall 23b and connects with the compartment 28 so that shampooing fluid may be placed therein when the brush is properly tilted so that the shampooing fluid extends along the level indicated by the line AB. The nipple 26 connects with the wall 29.

The front edge of the partition 27 is connected with means for forcing this front edge forwards and rearwards across certain of the passages 25. This means includes a stiffening bar 35 attached to one side of the partition 27 and connected with a rod 36 extending into the handle portion of the brush body. The rod 36 is provided with rack teeth 37 which mesh with a pinion 38 on a bushing 39 rotatively mounted upon the handle portion of the body. This bushing 39 has a projecting handle portion 39a by which it may be turned to operate the rack 37 for moving the front edge 27b of the flexible partition 27 forward or rearwards.

A valve 40 is mounted through the bushing 39 and controls the passage of water to the compartment 29. This valve 40 has a handle portion 41 by which it may be operated. The bushing 39 is provided with slots 42 through which the water may pass as controlled by the valve 40.

The front edge 27b of the flexible partition 27 frictionally maintains positions in which it is placed or maintain its position due to manual holding of the handle portion 41 of bushing 39. It is thus possible to cut down the number of passages 25 through which the shampoo fluid flows, and inversely, increase the number of passages through which the water flows. In this fashion the discharge of the shampooing liquid may be controlled.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. A shampoo brush, comprising a hollow brush body having a flexible front wall provided with a plurality of massaging nipples and passages through said wall among said nipples, a pipe nipple on said body for a water supply to the interior of said body, a flexible partition within the hollow of said body and extending from the back wall thereof and movably contacting the front wall and dividing off separate compartments for shampoo material and water, and means for forcing the one edge of said partition over and across certain of said passages.

2. A shampoo brush, comprising a hollow brush body having a flexible front wall provided with a plurality of massaging nipples and passages through said wall among said nipples, a pipe nipple on said body for a water supply to the interior of said body, a flexible partition within the hollow of said body and extending from the back wall thereof and movably contacting the front wall and dividing off separate compartments for shampoo material and water, and means for forcing the one edge of said partition over and across certain of said passages, comprising a rotative bushing in said body having a projecting handle by which it may be turned, a pinion mounted on said bushing and meshing with a rack connected with a bar mounted along the said one edge of said flexible partition.

3. A shampoo brush, comprising a hollow brush body having a front wall provided with a plurality of nipples and passages through said wall among said nipples, a flexible partition within said body and extending from one wall thereof and having a free edge contacting the opposite wall thereof and dividing the interior of said hollow body into separate compartments, and means for shifting the free edge of said partition with relation to its adjacent wall for enlarging the capacity of one compartment and decreasing the capacity of the other and vice versa depending upon the direction in which said free edge is moved.

4. A shampoo brush, comprising a hollow brush body having a front wall provided with a plurality of nipples and passages through said wall among said nipples, a flexible partition within said body and extending from one wall thereof and having a free edge contacting the opposite wall thereof and dividing the interior of said hollow body into separate compartments, and means for shifting the free edge of said partition with relation to its adjacent wall for enlarging the capacity of one compartment and decreasing the capacity of the other and vice versa depending upon the direction in which said free edge is moved, and means for retaining the free edge of said partition in constant contact with its adjacent wall of said hollow body.

5. A shampoo brush, comprising a hollow brush body having a front wall provided with a plurality of nipples and passages through said wall among said nipples, a flexible partition within said body and extending from one wall thereof and having a free edge contacting the opposite wall thereof and dividing the interior of said hollow body into separate compartments, and

means for shifting the free edge of said partition with relation to its adjacent wall for enlarging the capacity of one compartment and decreasing the capacity of the other and vice versa depending upon the direction in which said free edge is moved, and means for retaining the free edge of said partition in constant contact with its adjacent wall of said hollow body, said latter means comprising dove-tailed tracks molded in the wall contacted by the free edge of said partition, and dove-tailed tongues formed on the free edge of said partition and engaging into said tracks.

6. A shampoo brush, comprising a hollow brush body having a front wall provided with a plurality of nipples and passages through said wall among said nipples, a flexible partition within said body and extending from one wall thereof and having a free edge contacting the opposite wall thereof and dividing the interior of said hollow body into separate compartments, and means for shifting the free edge of said partition with relation to its adjacent wall for enlarging the capacity of one compartment and decreasing the capacity of the other and vice versa depending upon the direction in which said free edge is moved, comprising a rotative bushing in said body and having a projecting portion by which it may be turned, and means connecting the free edge of said partition to said bushing to cause the said edge to be moved as said bushing is turned.

7. A shampoo brush, comprising a hollow brush body having a front wall provided with a plurality of nipples and passages through said wall among said nipples, a flexible partition within said body and extending from one wall thereof and having a free edge contacting the opposite wall thereof and dividing the interior of said hollow body into separate compartments, and means for shifting the free edge of said partition with relation to its adjacent wall for enlarging the capacity of one compartment and decreasing the capacity of the other and vice versa depending upon the direction in which said free edge is moved, comprising a rotative bushing in said body and having a projecting portion by which it may be turned, and means connecting the free edge of said partition to said bushing to cause the said edge to be moved as said bushing is turned, comprising a pinion mounted on said bushing within said body, and a rod within said body and having one end connected with the free edge of said partition and its end formed with rack teeth meshing with said pinions.

PHILIP QUARANTI.