July 27, 1943. S. ISENBERG 2,325,123

SPRAY HEAD

Filed March 2, 1942

Fig. 1.

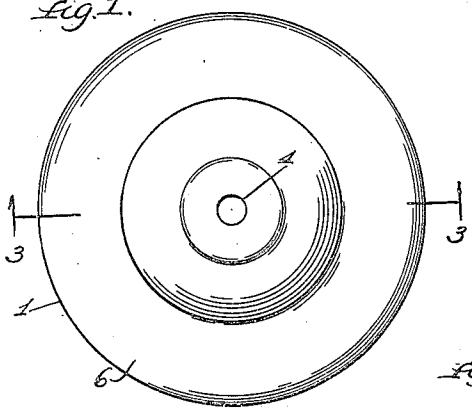


Fig. 2.

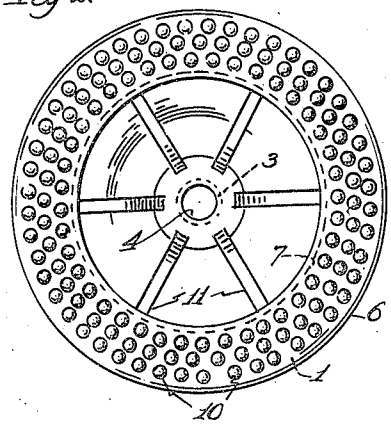


Fig. 3.

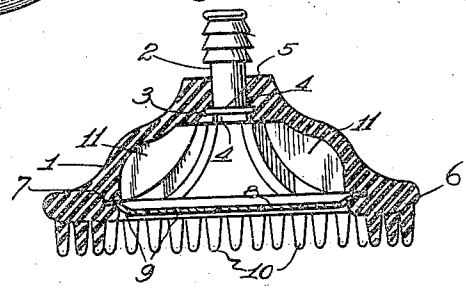


Fig. 4.

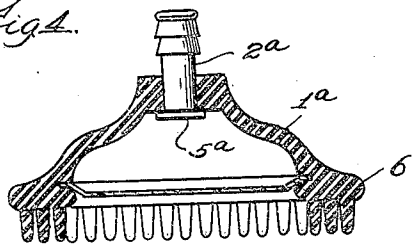


Fig. 7.

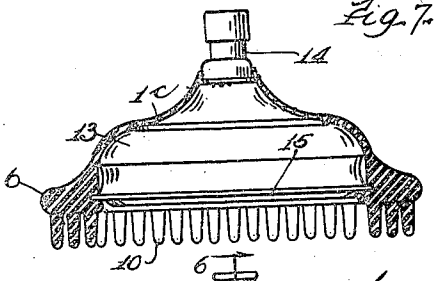


Fig. 6.

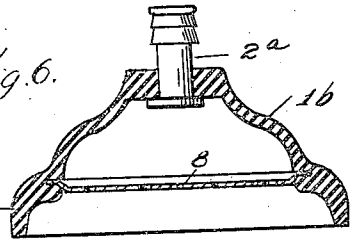


Fig. 5.

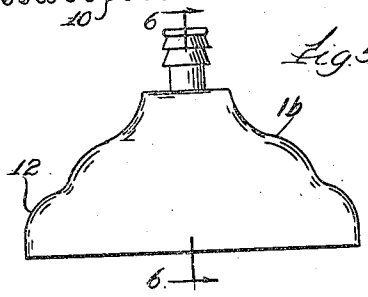


Fig 8

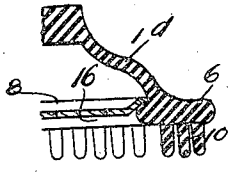
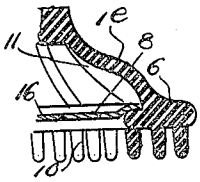


Fig 9.



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Patented July 27, 1943 2,325,123

UNITED STATES PATENT OFFICE

2,325,123

SPRAY HEAD

Stanley Isenberg, Chicago, Ill.

Application March 2, 1942, Serial No. 433,023

3 Claims. (Cl. 15—128)

This invention relates to improvements in bath and shampoo sprays. One object is to provide a liquid spray including a spray head that may be provided with a massage brush that cooperates with the spray proper in washing the hair and scalp and that is also ideal for body massage or rub down. A further object is to provide a spray device that is shaped to snugly fit the hand of the operator and that in use readily adapts itself to the particular work for which it may be employed.

A further object is to provide a bath spray device of light weight but very substantial construction, readily assembled and highly efficient in operation. A still further object is to provide a spray device that in operation causes little or no water splash, that provides a resilient casing or head, preferably all rubber, that is non-collapsible and non-expanding, that is neat and attractive in appearance and inexpensive to manufacture.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described, pointed out in the claims and illustrated in the accompanying drawing, and in which—

Fig. 1 is a top plan view of a spray head constructed according to the present invention.

Fig. 2 is an inverted plan view of Fig. 1, the perforated disc being omitted.

Fig. 3 is a central vertical sectional view through Fig. 1 taken on the line 3—3 thereof and showing the perforated disc.

Fig. 4 is a view similar to Fig. 3, but of a slightly modified form of spray head.

Fig. 5 is a view in elevation of a further slightly modified form of spray head.

Fig. 6 is a central vertical sectional view through Fig. 5 taken on the line 6—6.

Fig. 7 is a view similar to Fig. 4 but of a further slightly modified form of the device, and,

Figs. 8 and 9 are fragmentary sectional views illustrating further slight structural modifications.

Like reference characters denote corresponding parts throughout the several views.

Referring now to Figs. 1, 2 and 3 of the drawing, the spray head includes a substantially bell shaped resilient or all rubber head 1, the crown or topmost portion thereof being materially thickened and having a perforation 4 to receive the coupling 2 for the rubber tube (not shown), said crown being formed also with the annular recess 3 opening into said perforation and adapted to receive the terminal flange 5 of said coupling. The base of the bell shaped head is widened somewhat to form the buffer ring 6 and along its inner wall it is formed with an annular recess 7 adapted to receive the inwardly bent flange of the spray disc 8 formed with a plurality of small perforations 9 to spray the water. The base of the bell is formed upon its lowermost face with a plurality of bristles 10 spaced apart and extending completely thereabout to form a massage brush. In washing or rinsing the hair this brush may serve to spread the hair to permit freer access of the water to the scalp and to the inner ends of the strands of hair.

Extending radially from the central perforation 4 almost or quite to the recess 7 are the spaced ribs 11 of material depth, the lowermost "tread" face of each rib clearly shown in Fig. 2 being somewhat rounded and smooth, said ribs terminating contiguous to said disc 8. The ribs 11 materially strengthen the head and prevent its collapse or expansion when pressure is applied to the crown thereof. When external pressure is applied the head may be moved inwardly but slightly when the ribs will ride against the disc 8 which action will effectually prevent distortion. In assembling the spray head at the factory the disc 8 is introduced into the head as the latter is spread at its mouth mechanically, as by a jig, the disc coming in contact with the ribs and being moved or slid thereby into engaging position with the head recess 7.

It will be noted that the wall of the base of the head is of material thickness to permit it to resist pressure without losing its shape when gripped firmly. Referring now to Fig. 4 the head is provided with a central perforation through which the coupling 2a extends, the terminal flange 5a being disposed inside the head about said perforation. This head is formed with a smooth inner wall without ribs. Referring now to Figs. 5 and 6 the head 1b terminates in an annular flange or shield 12 disposed in advance of or below the disc 8 to prevent lateral splash of the spray in using the spray head.

Referring now to Fig. 7 the rubber head 1c snugly receives and carries a non-rubber hollow body 13 formed with a stem 14 that extends through the head crown to receive the rubber tube, said non-rubber body being formed also with an annular rib 15 that seats in the recess 7a of said rubber head, the base of said body being formed with perforations to spray the fluid, said all rubber head being provided upon its base with

bristles 10 disposed outwardly or below and about said perforated body base.

Referring now to Fig. 8 the all rubber head 1d is formed with an inner annular shoulder 16 upon which the perforated disc 8 is received, said disc fitting snugly within the head upon said shoulder and by said resilient head being frictionally retained in this operative position. The head 1d is formed with bristles 10 upon the lower face of its base, said bristles being spaced about and in lower spaced relation to said disc.

Referring now to Fig. 9 the all rubber head 1e is formed with an inner annular shoulder 16 and thereabove with ribs 11 that extend from the crown of said head almost but not quite to said shoulder 16 so that a space is provided between said shoulder and each rib wherein said disc flange is received and frictionally retained.

The novel features and the operations of this device will be apparent from the foregoing description. While the device has been shown and the structure described in detail, it is obvious that this is not to be considered limited to the exact form disclosed and that changes may be made therein within the scope of what is claimed without departing from the spirit of the invention.

What is claimed is:

1. In a liquid spray device, a bell-shaped head formed of rubber or similar material having a small perforation in its crown, a perforated disc carried by said head, bristles integral with said head disposed about said disc in a plane parallel to and beyond said disc, and ribs running from said crown perforation to said disc.

2. In a liquid spray device, a bell-shaped head formed of rubber or similar material having a small perforation in its crown and a recess registering with said perforation to receive a flanged coupling, a perforated disc carried by said head, bristles integral with said head disposed about said disc in a plane parallel to and beyond said disc, and spaced ribs having narrow smooth treads running from said crown perforation to said disc.

3. In a liquid spray device, a resilient bell shaped head, an annular shoulder formed inwardly of said head, spaced ribs in said head terminating contiguous to said shoulder, a perforated disc having a co-extensive peripheral flange received and frictionally retained between said shoulder and ribs, and bristles integral with said head disposed about said disc in a plane parallel to and beyond said disc.

STANLEY ISENBERG.