April 28, 1953 S. J. GLANTZ 2,636,203

DISPENSING BRUSH

Filed Aug. 9, 1949

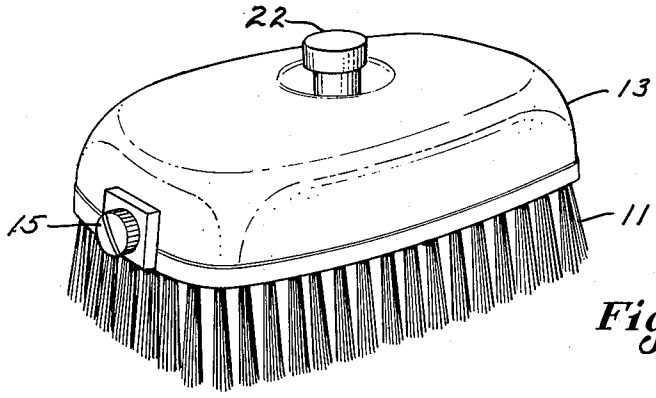


Fig. 1

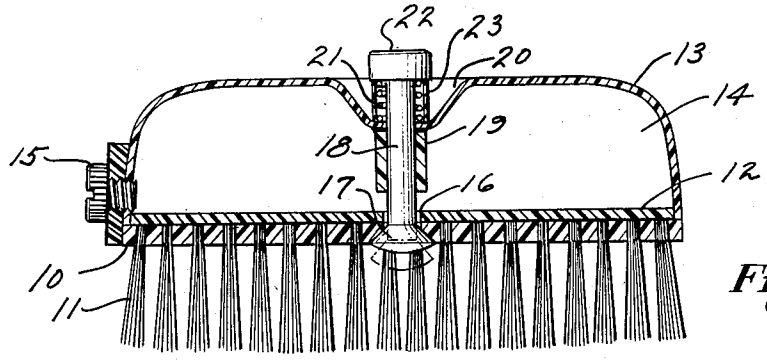


Fig. 2

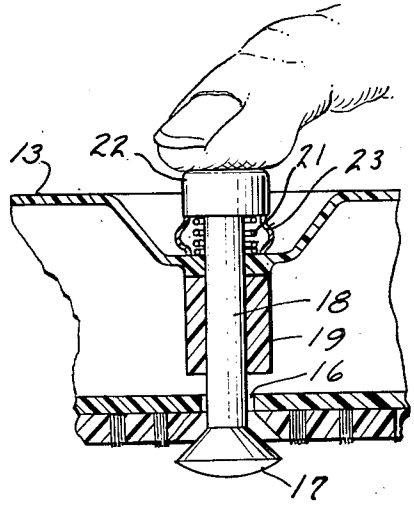


Fig. 3

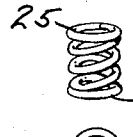


Fig. 4

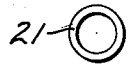


Fig. 5

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DISPENSING BRUSH

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1 Claim. (Cl. 15—138)

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This invention relates to brushes that are used for dispensing liquids, and is particularly concerned with a brush that is adapted for use in shampooing or in other treatment of the hair.

An object of this invention is to construct a brush which has a size that is convenient for holding in the hand, and which is provided with a reservoir of liquid that is to be used concurrently with the brush. The device includes also a valve which is normally closed but which is adapted to be opened for the purpose of distributing a liquid upon the hair without removing the brush from the hair, whereby the liquid dispensed may be deposited upon the head in the precise location desired.

Referring now to the drawings, Fig. 1 is a perspective view of a dispensing brush embodying the present invention; Fig. 2 is a vertical section taken longitudinally through the brush; Fig. 3 is an enlarged fragmentary section showing the operation of the valve; Fig. 4 is a perspective view of the coil spring removed from the valve stem; Fig. 5 is a top plan view of the coil spring.

A brush made in accordance with the present invention is shown in the form of a military brush having a back 10 into which bristles 11 are fastened in any convenient way. Surmounting the back is a base 12 and a housing 13 which provide a hollow chamber 14 that acts as a reservoir for the liquid to be dispensed. The reservoir may be filled through an aperture which is normally closed by a screw plug 15.

The liquid within the reservoir is adapted to be dispensed onto the bristles through an aperture 16, but such aperture is normally closed by a valve 17, the stem 18 of which projects through an aperture in the top wall of the housing. Ample bearing surface for the stem may be attained by utilizing a sleeve 19 which depends from the top of the housing and has a close sliding fit with the stem. A depression or well 20 within the top wall of the housing provides space for the reception of a spring 21 which acts upon the head 22 of the valve stem to keep the valve normally closed. A flexible skirt 23 may conceal the spring and serve to protect it against the accumulation of foreign material thereon. In practice, the upper end of the valve stem is substantially flush with the top of the body.

The spring 21 preferably has the end turns completely circular as shown at 25 and 26 in Fig. 4, so as to provide an even bearing surface at one end against the head 22 and at the other end against the outer wall of the housing 13. This prevents cutting of the parts engaged by the spring, particularly when such parts are made of polymeric material.

An advantage of a brush made in accordance with the present invention is that the liquid to be dispensed is applied directly to the hair and in the precise quantity desired while the brush

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is being used. This results in an even distribution of the liquid and avoids undue waste as well as the necessity for bringing the material in direct contact with the hands of the user.

I claim:

In a liquid dispensing brush having a hollow body and a bottom wall and a substantially smooth top enclosing wall having a central depressed portion and provided with a filling opening, a plate having bristles fixed therein and extending outwardly therefrom, means for securing said plate to the bottom wall of the hollow body, said plate having an opening therethrough within the space occupied by the bristles, the bottom wall having an aligned opening establishing communication between the interior of the hollow body and the opening in said plate, a valve stem having one end extending through the central depressed portion of the top wall and having the other end extending through the aligned openings in the bottom wall and plate, said one end of the valve stem having a head external of the top wall and adapted to be positioned within the central depressed portion out of the plane of the body top, a journal carried by the top wall within the hollow body and surrounding the valve stem, the other end of said valve stem carrying a valve closure adapted to seat in the plate opening to isolate the bristles from the liquid in the hollow body, and a spring surrounding the valve stem between the head and the depressed portion of the top wall of the hollow body and coacting therebetween to maintain the plate opening closed.

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