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(54) **HAIRBRUSH WITH ATTACHED SPRAY BOTTLE**

(57) **ABSTRACT**

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A hairbrush and product applicator system comprises a hollow handle portion and a hollow brush portion that are connected to each other via screw threads. The brush portion has a plurality of bristles, with at least some of the bristles having a channel therethrough and an open end. The channel communicates with the hollow interior of the brush portion. There is a spray application system comprising a spray bottle discharger disposed on the threaded end of the handle portion and a spray bottle discharge receiver disposed on the threaded end of the brush portion. There is an actuator connected to the spray bottle discharge receiver. When the actuator is moved, liquid from the handle portion sprays through the discharger into the brush portion, through the channels in the bristles and out the open ends. This way, styling products can be placed in the handle portion and applied to the hair through the brush. This allows for an even application of the styling product without touching the product with one's hands.

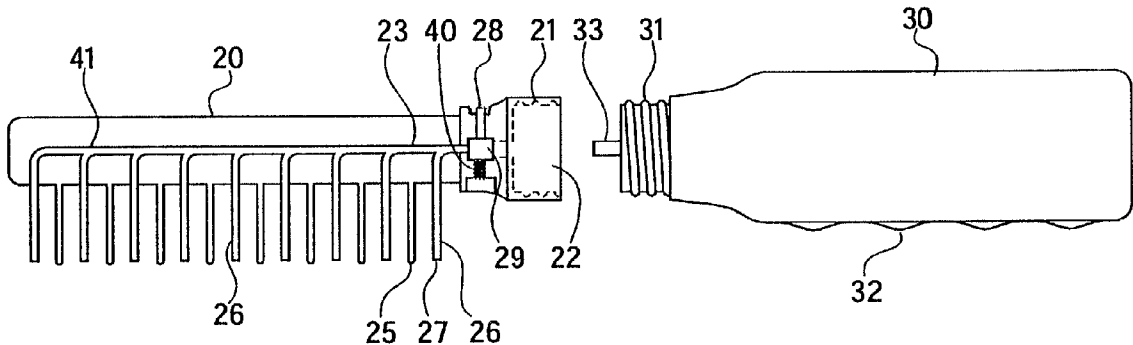
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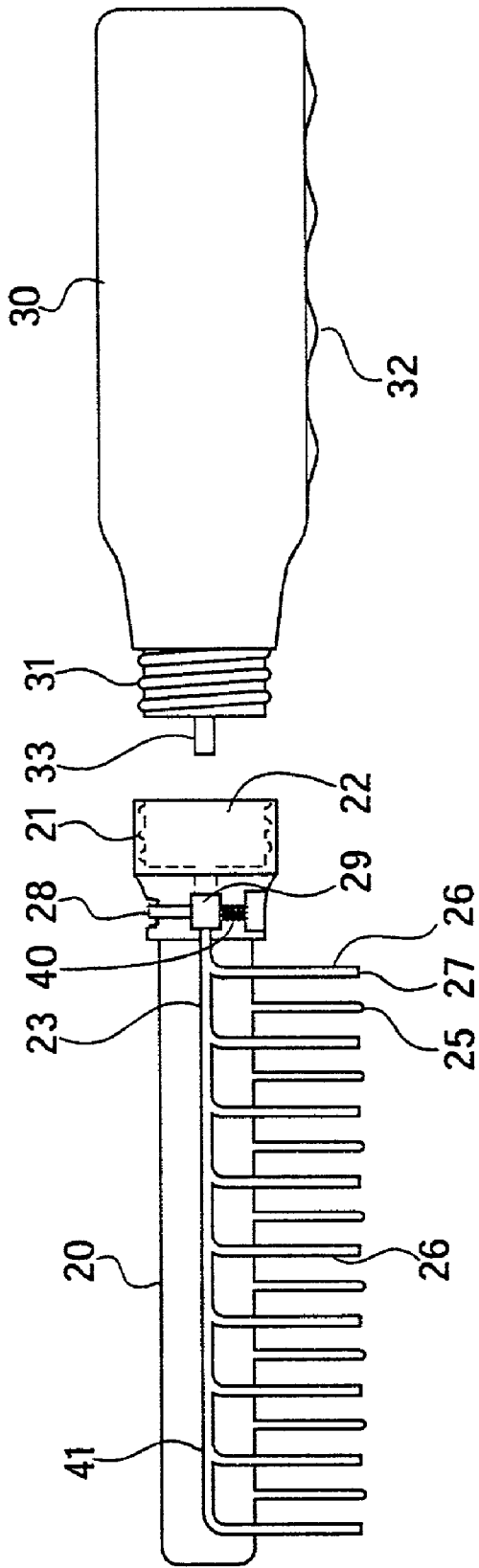


FIG. 1

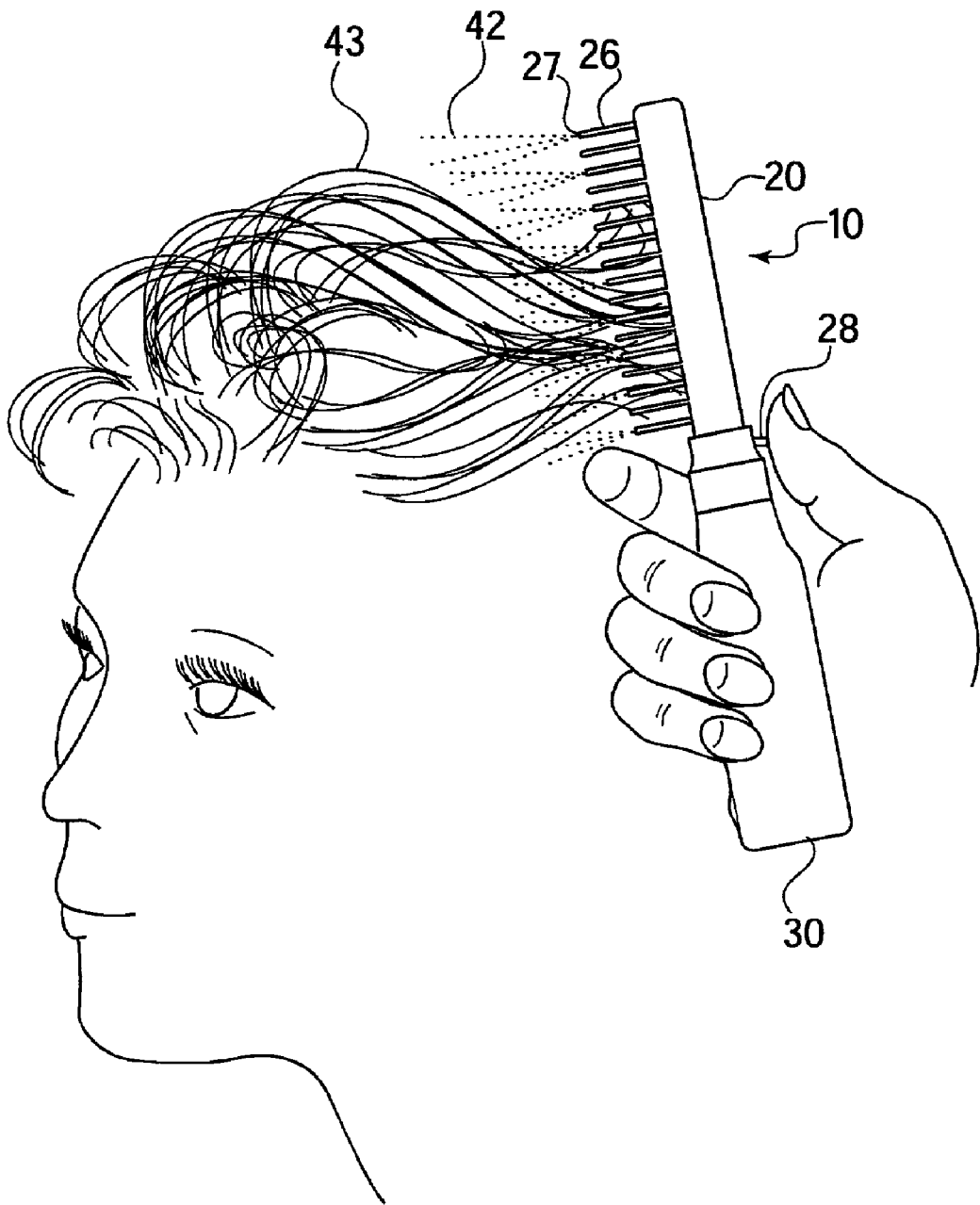


FIG. 2

HAIRBRUSH WITH ATTACHED SPRAY BOTTLE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to a hairbrush with a spray bottle attached as the handle, so that liquid from the spray bottle can be directly injected through the brush and exit through the bristles of the brush onto a user's hair while brushing.

[0003] 2. The Prior Art

[0004] During the hairstyling process, it is often desirable to use styling products such as lotions, gels, hair sprays, etc. to hold the hair in place. These products are usually sprayed directly onto the hair from the bottle, or applied with the fingers. In either case, it is often difficult to achieve an even application of the product on all parts of the hair. For example, for products that are directly sprayed on, only the top layer of the hair receives the product, and it must then be worked in before the product dries. For finger-applied products, there are always spots that the fingers will miss, leaving an uneven application. In addition, it is often undesirable to cover one's hands in styling products, which can be very sticky. Finally, oil and dirt from one's hands can be transferred to the hair, leaving an undesirable residue on the hair.

[0005] There have been attempts to provide styling products that are applied directly through a hairbrush. For example, U.S. Pat. No. 750,388 to O'Higgins discloses a comb for applying liquids to the scalp. This device is a comb having hollow teeth and a hollow handle, into which a liquid is poured. To apply the liquid to the hair, the comb is run through the hair and the liquid automatically flows out. There are plugs in the teeth to prevent the liquid from exiting when the comb is removed from the scalp.

[0006] Another such comb is disclosed in U.S. Pat. No. 2,164,442 to Bankston. This comb has a reservoir along its spine for holding a styling product. The product is released by pressing on a valve button, which releases the product through an opening.

[0007] U.S. Pat. No. 3,429,642 to Underwood discloses a hair treatment applicator which discharges liquid from a vat through one of two nozzles on a hand-held applicator.

[0008] U.S. Pat. No. 712,530 to Herfert discloses a curry comb in which liquid from a reservoir in the handle is discharged through the teeth of the comb via pressing a plunger, which forces the liquid through the teeth of the comb.

[0009] None of the devices described above allow for the use of a removable, cleanable handle which can be used to apply a variety of styling products. Furthermore, these devices are difficult to clean.

SUMMARY OF THE INVENTION

[0010] It is therefore an object of the invention to provide a hairbrush that can be used to apply a variety of different styling products via a removable handle.

[0011] It is another object of the invention to provide a hairbrush that is easy to clean and transport.

[0012] These and other objects are accomplished by a hairbrush and product applicator system comprising a hollow handle portion and a hollow brush portion that are connected to each other via screw threads. The brush portion has a plurality of bristles, with at least some of the bristles having a channel therethrough and an open end. The channel communicates with the hollow interior of the brush portion.

[0013] There is a spray application system comprising a spray bottle discharger disposed on the threaded end of the handle portion and a spray bottle discharge receiver disposed on the threaded end of the brush portion. There is an actuator connected to the spray bottle discharge receiver. When the actuator is moved, liquid from the handle portion sprays through the discharger into the brush portion, through the channels in the bristles and out the open ends. This way, styling products can be placed in the handle portion and applied to the hair through the brush. This allows for an even application of the styling product without touching the product with one's hands.

[0014] The actuator is preferably a lever or slide button connected to the spray bottle discharge receiver. Moving the lever or sliding the slide button causes the discharge receiver to press on the spray bottle discharger and force liquid from the handle portion into the brush portion. There is a spring connected to the spray bottle discharge receiver, to move the receiver back into a resting position after the slide button is released.

[0015] The handle portion preferably has disposed around its exterior surface to make gripping the brush easier. There are preferably several handle portions for each brush portion, so that several styling products can be kept in the handle portions and interchanged easily.

[0016] The threads on the handle portion are preferably exterior threads and the threads on the brush portion are interior threads. However, the opposite arrangement could also be employed.

[0017] To facilitate cleaning the brush portion, the threads on the handle portion are the same size and dimension as the threads on a standard garden hose. This way, a standard garden hose can be easily connected to the brush portion to clean the interior of the brush portion. This allows for more thorough cleaning than just running tap water through the brush portion, because the pressure from the hose is much greater and can free styling product residue more easily.

[0018] The spray bottle discharge receiver is preferably connected to a rubber tube extending through the brush section. The rubber tube is then connected with the channels on the bristles to transport liquid from the handle portion through the bristles.

[0019] The handle portions are preferably disposable, so that once the liquid is used up, additional handle portions are connected. The liquid could be any type of sprayable liquid, such as styling lotion, hair spray, etc.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying drawings. It is to be understood, however, that the drawings are designed as an illustration only and not as a definition of the limits of the invention.

[0021] In the drawings, wherein similar reference characters denote similar elements throughout the several views:

[0022] FIG. 1 shows a side cross-sectional view of the brush system according to the invention; and

[0023] FIG. 2 shows the brush system according to the invention in use.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0024] Referring now in detail to the drawings, FIG. 1 shows the brush system 10, which comprises a handle portion 30 and a brush portion 20. Handle portion 30 is hollow and can accommodate any type of liquid styling product, or water. Handle 30 has finger grips 32 and external threads 31, for attaching handle 30 to brush portion 20.

[0025] The attachment end of handle 30 has a spray bottle discharger 33, which, when actuated, dispenses a quantity of the liquid in a spray. Spray bottle discharger 33 is a standard type of discharger that is located on most conventional spray bottles.

[0026] Brush portion 20 comprises a shaft 20 having a hollow rubber tube 41 therethrough. Brush portion 20 is attached to handle portion 30 via internal screw threads 21. There is a spray bottle discharge actuator in the form of a slide button 28 connected to a receiving section 29, which rests on a spring 40. When brush portion 20 is connected to handle portion 30, spray bottle discharger 33 is inserted within receiving section 29. Moving slide button 28 causes receiving section 29 to move downward against spring 40, causing spray bottle discharger 33 to discharge liquid in handle portion 30 into brush portion 20. Releasing lever 28 causes receiving section 29 to return to a resting state, which stops the spraying operation.

[0027] Brush portion 20 is equipped with a plurality of bristles 25, for brushing hair before, during or after the spraying operation. There are a plurality of spray conduits 26, which are hollow bristles, disposed among bristles 25. Spray conduits 26 have a hollow channel therethrough and an open end 27 and are connected to hollow rubber tube 41 of brush portion 20. Spray 42 from handle portion 30 travels through hollow tube 41 and out of open ends 27 of spray conduits 26 when slide button 28 is moved. This operation can occur while using brush assembly 10 to style hair 43, as shown in FIG. 2.

[0028] Brush assembly 10 is a convenient way to apply a styling product to hair, as it allows the stylist to continue styling the hair during the spraying operation, while avoiding touching the styling product with his/her hands. This ensures an even and clean application of the styling product.

[0029] Brush assembly 10 is very easy to clean, as a common garden hose can be attached to internal threads 21 for cleaning. Brush assembly 10 can be equipped with a plurality of different handle portions 30, so that different styling products can be used at different times.

[0030] Accordingly, while only a single embodiments of the present invention has been shown and described, it is obvious that many changes and modifications may be made thereunto without departing from the spirit and scope of the invention.

What is claimed is:

1. A hairbrush and product applicator system comprising:

a handle portion having a hollow interior, a first end and a second end, said first end being equipped with screw threads;

a brush portion having a hollow interior and having a first end and a second end, said first end being equipped with screw threads that mate with the screw threads on said handle portion to connect said brush portion to said handle portion;

a plurality of bristles disposed on said brush portion, at least some of said bristles having a channel therethrough and an open end and communicating with said hollow interior of said brush portion; and

a spray application system comprising:

a spray bottle discharger disposed on the first end of said handle portion;

a spray bottle discharge receiver disposed on the first end of said brush portion, and

an actuator connected to said spray bottle discharge receiver and adapted to spray liquid in said handle portion through said discharger into said brush portion, through the channels in said bristles and out the open ends.

2. The system according to claim 1, wherein said actuator comprises a lever connected to said spray bottle discharge receiver, wherein moving the lever causes the discharge receiver to press on said spray bottle discharger and release liquid from said handle portion.

3. The system according to claim 2, further comprising a spring connected to said spray bottle discharge receiver, to move said receiver back into a resting position after said lever is released.

4. The system according to claim 1, further comprising hand grips disposed around an exterior surface of said handle portion.

5. The system according to claim 1, wherein the threads on the handle portion are exterior threads and the threads on the brush portion are interior threads.

6. The system according to claim 5, wherein the threads on said handle portion are the same size and dimension as the threads on a standard garden hose, so that a garden hose is attachable to said brush portion for cleaning.

7. The system according to claim 1, wherein the spray bottle discharge receiver is connected to a rubber tube extending through said brush section, said rubber tube being connected with said channels on said bristles to transport liquid from said handle portion through said bristles.

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