July 1, 1969 S. R. SARINELLI 3,452,759

APPARATUS FOR COSMETICALLY TREATING HAIR

Filed Aug. 11, 1966

FIG. 1

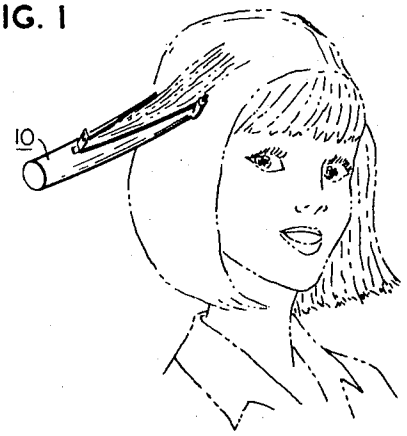


FIG. 2

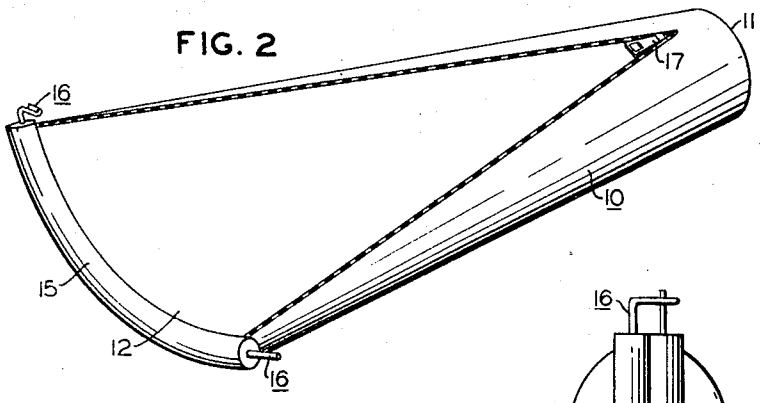


FIG. 4

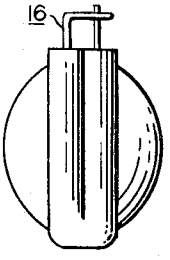
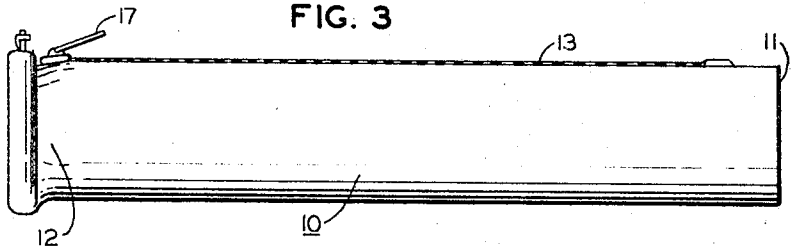


FIG. 3



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United States Patent Office 3,452,759 Patented July 1, 1969

3,452,759

APPARATUS FOR COSMETICALLY TREATING HAIR

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Filed Aug. 11, 1966, Ser. No. 571,739
Int. Cl. A45d 7/00, 6/00, 2/12
U.S. Cl. 132—9
4 Claims

ABSTRACT OF THE DISCLOSURE

A hair treating vessel is disclosed in which a tubular body joins two ends. One end is permanently sealed, the other is free to open and close and includes a pliable lip and a hooking arrangement for holding portions of the pliable lip together in a seal and the tubular body includes a longitudinally extending aperture. Both the open end and the aperture are adapted to be opened and closed independently.

This invention pertains to cosmetic devices and relates particularly to apparatus used for treating hair.

Broadly, the object of this invention is to facilitate cosmetic treatment of human hair.

Styling, cutting and coloring hair are significant aspects of the art of cosmetology. Hair coloring, in particular, has become a major part of the typical hairdresser's business.

While complete and uniform hair coloring is traditional, selective dyeing or frosting has become commonplace. In frosting, a stylist gathers hair from a selected head area into a bundle and applies a dyeing or bleaching agent. There are several methods of treating the hair with the agent. In one, for example, the hair is foil frosted.

In foil frosting, the hair is impregnated with a bleaching solution, rollen in metal foil and kept rolled until the desired bleaching occurs. This technique gives generally good results but it tends to be messy, time consuming and difficult to control. For instance, when the foil is wrapped around the impregnated hair, some of the bleach leaks out and discolors adjacent hair. Similarly, a great deal of dexterity is required to retain the bleach or dye in the foil initially, keep cotton plugs in place for plugging the ends of the foil when wrapped, and wrap the foil around the hair all without dropping or losing anything. Furthermore, even in the best of cases, the foil does not wrap uniformly around the hair being treated and voids occur. As a result, some of the dye or bleach escapes. A principal cause of uneven bleaching or dyeing is attributable to variations in the concentration of the treating agent caused by leakage.

Attempts to regulate the variation in dye or bleach concentration from hair bundle to hair bundle have heretofore tended to intensify the problem. For example, compensation for variations in concentration is typically achieved by varying the length of treating time. While suitable in theory, such a technique requires periodic inspections. Specifically, the hair bundles bust be unwrapped during the treatment period in order to inspect progress. Unwrapping, however, creates more dye or bleach spills, and thereby further changes the concentration of the treating agent. As a result, further difficulty in maintaining dyeing or bleaching uniformity is created.

According to a preferred embodiment of this invention, a pre-formed moisture proof tube holds each hair bundle during treatment. The tube comprises a vessel having an end opening and a side opening. The end and side openings open and close to accept or release hair. The end opening, however, once closed remains closed until treatment is completed. The side opening, on the other hand,

can be opened and closed at will during the treatment whenever inspection is required.

The following detailed description will assist in obtaining a better understanding of this invention when taken in conjunction with the drawing in which:

FIG. 1 illustrates the use of a device embodying this invention;

FIG. 2 is a perspective view of a device embodying this invention;

FIG. 3 is an elevation view of the structure shown in FIG. 2; and,

FIG. 4 is an end view of the structure shown in FIG. 3.

Referring now to FIG. 2, a tube **10** is illustrated. The tube **10** is advantageously made from a durable plastic or other material which will withstand relatively high temperatures without melting or otherwise breaking down. Moreover, it is advantageously transparent.

As shown in FIG. 3, the tube **10** has two ends **11** and **12**, respectively, and a side **13**. The end **11** is completely and permanently sealed while the end **12** and the side **13** are free to open and close.

The end **12** includes a seal **15** which is closed by a hook assembly **16**. The seal **15** comprises a lip attached to the tube **10**, while the hook assembly **16** comprises a hook and pin extending out of the ends of the seal **15**. The particular configuration of the hook assembly **16** is not of particular significance; it is only necessary that it hold the seal **15** together tightly when closed. In the embodiment illustrated, the hook engages a pin to hold the two sides of the seal **15** in place when they are folded together.

The side **13** on the tube **10** is arranged to open and close to accept a hair bundle to be treated. Specifically, as shown in FIGS. 1 and 2, the side **13** includes a longitudinally extending aperture which is opened and closed in response to movement of a zipper **17**. While the zipper **17** is particularly convenient, other opening and closing arrangements such as a draw string or the like will work equally as well.

In operation, the zipper **17** is moved toward the end **11** until, as shown in FIG. 2, the tube **10** is open. Next, a bundle of hair is placed in the aperture opened by the zipper **17**. Thereafter, the seal **15** is clamped on the hair bundle and held clamped by the hook assembly **16**.

As shown in FIG. 4, when the seal **15** is held in place by the hook assembly **16**, a tight seal is formed. In fact, the seal is so tight that it is moisture proof. Since the seal is so tight, a hair bundle clamped therein is held with a considerable amount of force. Thus, the tube **10** tends to stay in position on the hair bundle during all stages of treatment.

Although the seal **15** holds the hair bundle tightly, nevertheless, the tube **10** can still be moved along the length of the hair bundle with difficulty. Thus, after the seal is formed, the tube **10** may be and is adjusted with respect to the base of the hair bundle by sliding as necessary in order to envelope the desired length of hair to be treated.

When the tube **10** is finally closed and positioned, a treating agent such as dye, bleach or the like is impregnated in the hair bundle and the zipper **17** closed. Since the hair is safely bundled in the tube **10**, impregnation is easily done without mess.

Inspection during treatment to check progress of the agent is extremely simple; viz, the zipper **17** is merely slid back to open the side **12** and expose the interior of the tube **10** and the hair bundle within to view. Since the side **12** is the only portion of the tube **10** to open during inspection, there is little likelihood that the treating agent will spill and thereby affect nearby hair or become diluted by spillage and thereby affect the degree of coloring.

Thus, even when an opaque tube is used, inspection is readily performed. On the other hand, where the tube **10** is transparent, it need not even be opened in order to carry out inspections. As a result, the entire treatment can be performed without danger of the treating agent escaping.

A transparent tube, moreover, is of particular advantage with modern hairdressing equipment. The treatments being discussed herein are generally accelerated in response to increase in the ambient temperature. Presently, machines which apply heat to the hair being treated by infrared or the like are becoming commercially plentiful. When such a machine is used in conjunction with transparent treating tubes, substantial reductions in trouble and time are achieved.

The tube **10** can be made in almost any size and shape. As a result, it is adapted to a variety of uses. Generally, however, the size should be small and the shape cylindrical. Tubes with such characteristics are easily attached to all of the hair bundles on any head, and treatment can be performed without crowding of the tubes.

In summary, therefore, a new device for assisting hair stylists in dyeing or bleaching hair has been disclosed and described. Not only is the device simple to manipulate but it is easy to fabricate. Only a preferred embodiment of this invention has been disclosed and that merely to illustrate the principles of the invention. Clearly, other embodiments which fall within the scope of this invention will occur to others skilled in the art.

I claim:

1. A cosmetic device comprising:

a vessel for accommodating a hair bundle and a cosmetic treating material in a moisture proof envelope, said vessel having two ends joined by a tubular body, one end being permanently closed, the other end being adapted to open and close and said body having a longitudinal aperture extending to said other end arranged to co-operate with said other end to form a wide, readily accessible opening in said vessel suitable for accommodating said hair bundle and said cosmetic treating material when inserted therein;

means for independently opening and closing said aperture as desired to provide ready access to said hair bundle and said cosmetic treating material during treatment; and

means for independently opening and closing said other end in a moisture proof seal, said means comprising a hooking device and a tubular bead of compressible material disposed along said other end in the form of a pliable lip adapted to close said other end around said hair bundle in a moisture proof seal when doubled over and held by said hooking device.

2. A cosmetic device in accordance with claim **1** wherein said vessel is transparent.

3. A cosmetic device comprising:

a moisture proof plastic vessel for accommodating a hair bundle and a cosmetic treating material during a hair treating process, said vessel having a tubular body sealed at one end, open at the other and including an aperture extending longitudinally along said body to said other end and adapted to co-operate with said other end to form a wide, readily accessible opening in said vessel suitable for accommodating said hair bundle and said cosmetic treating material when inserted therein;

a tubular bead of plastic material for engaging said hair bundle in a moisture proof seal, said bead being attached to said other end and extending along the periphery thereof;

hooking means for pressing two portions of said lip against opposite sides of a hair bundle to form a moisture proof seal when said two portions are folded parallel to each other and against said hair bundle; and

a zipper attached to said tube for opening and closing said aperture to provide ready access to said hair bundle and cosmetic treating material during treatment.

4. A cosmetic device in accordance with claim **3** wherein said tube is transparent.

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