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HAIR CURLER

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FIG. 1

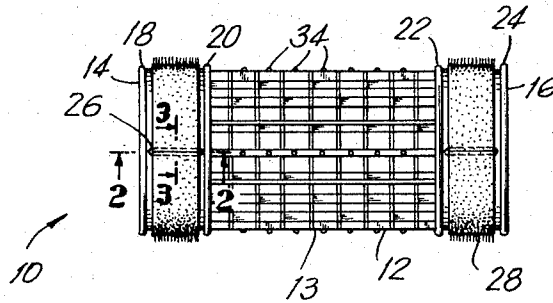


FIG. 2

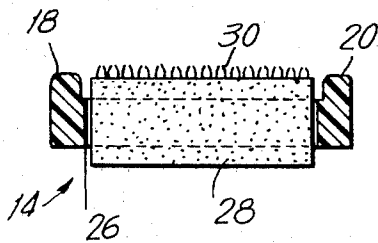


FIG. 3

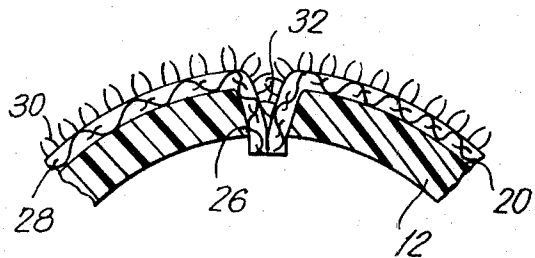


FIG. 5

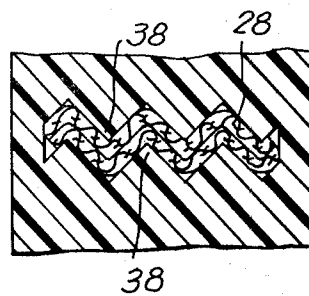
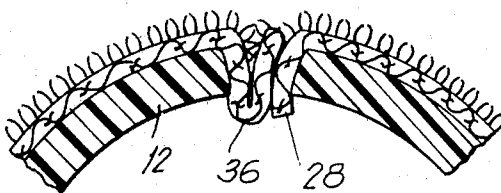


FIG. 4



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HAIR CURLER

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8 Claims

ABSTRACT OF THE DISCLOSURE

A hair curler having cylindrical strips of material containing radially extending resilient hair gripping bristles mounted about a hollow curler body adjacent opposite ends and securely held in position without requiring stitching by passing the ends of the strips through slots interiorly into the curler body.

This invention relates to improvements in hair dressing devices, and more particularly, to an improved hair curler designed and constructed to securely hold a rolled tress of hair in position on the head of the user.

Hair curling as practiced today in the home and professional beauty shops involves division of the hair of the user into various tresses or swatches. Each of these tresses is evenly wound on a hair curler and by dampening the curled tress with water or chemicals, or by application of heat or the like, the tress is caused to take the form imparted to the hair by the curler.

As is well known in the art, during the hair waving treatment, the hair filaments elongate when dampened with water or waving lotions and contract during drying. If a curler does not embody adequate means for compensating for the elongations and contractions of the hair filament during the curling process, the hair tress wound thereon frequently becomes loosened and the individual hair filaments become displaced and take the curl form existing under the loosened or displaced condition, which does not produce the optimum curl.

Also, a satisfactory curler should not provide stress concentrations with respect to the hair filaments. Often, after hair waving lotion has been applied to the tress of hair, the individual filaments become brittle and are usually broken or harmed by any application of a stress concentration. Curlers in widespread use today generally require separate retaining devices to hold a curler in position on the head of the user, such as a clip or bobby pin or a band or arm, which interconnect the ends of the cylindrical roller and extend over and engage the hair rolled thereon. The bobby pin is the most common hair retainer used, but is difficult to use by the self-user, and also applies stress concentrations to the filaments of the hair.

Attempts to overcome these objections have been many and varied. Curlers having strips of material containing hair gripping strands or bristles have been used, which effectively hold and retain the tress of hair on the curler, but these are expensive to fabricate and to manufacture, hence the cost is relatively high. Also, attaching the strips tightly about a relatively rigid roller body has been difficult to achieve consistently. Sewing often fails to make a tight, durable seam and create an uneven surface with an overlapped seam. Adhesives often fail during use with waving solutions.

The present invention contemplates a novel hair curler particularly designed and constructed to provide a two-fold purpose. The curler is provided with a relatively rigid, but yielding hair winding core, whereby an efficient curling operation of the hair may be accomplished, while permitting ready drying of the wet tress of hair. At the same time when the tress of hair is wound on the curler, it is easily retained on the head of the user by merely

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pushing it against the scalp, whereby yielding bristles on opposite ends of the curler grasp the hair on the scalp and hold the rolled tress of hair securely in position. The curler body has slits which securely retain ends of cylindrical strips of material containing the yielding bristles on opposite ends of the curler body tightly in position on the body.

Accordingly, it is an object of the present invention to provide a hair curler on which the hair may be easily rolled on the head of the user and which can be securely retained in rolled position without employing separate external fastening devices.

Another object of the present invention is to provide an improved hair curler designed and constructed for facilitating the dressing of one's own hair and having sufficient rigidity to ensure efficient curling of the hair.

A still further object of the present invention is to provide a hair curler body which can easily and quickly mount strips of material containing hair holding bristles without stitching, and yet has an open mesh construction to allow free passage of air to the interior of the curl.

Still another object is to provide a hair curler that accomplishes all of the above and yet is simple to use, inexpensive to fabricate, light in weight, allows free evaporation of any moisture in the hair, and is durable in use.

Further objects and features of the invention will be apparent when the following description is considered in connection with the annexed drawings, in which:

FIGURE 1 is a front elevational view of a hair curler embodying the present invention;

FIGURE 2 is an enlarged cross-sectional view taken along line 2—2 of FIGURE 1;

FIGURE 3 is an enlarged fragmentary cross-sectional view taken along line 3—3 of FIGURE 1;

FIGURE 4 is an enlarged cross-sectional view similar to FIGURE 3 and showing a further modification; and

FIGURE 5 is an enlarged, fragmentary plan view of one end portion of the curler showing a further embodiment of the present invention.

Referring now to the drawings, a hair curler 10 has a core member 12, which is of generally thin, tubular construction, made of plastic or the like. Advantageously, the central portion 13 of core member 12, about which a tress of hair is wound, has an open mesh design to aid in drying of the tress of hair, which is shown as rectangular grid work. Any convenient type of mesh construction can be used. Core member 12 has at opposite ends, cylindrical end portions 14 and 16, respectively. End portion 14 is set off by a pair of annular ribs 18 and 20 and end portion 16 is similarly set off by a pair of ribs 22 and 24. End portions 14 and 16 could have their peripheral surface solid or of mesh construction. Extending between ribs 18 and 20 and transverse thereto, is a slot or opening 26. Slot 26 is of a predetermined thickness, which will be discussed hereafter. Disposed circumferentially about end portion 14 is a fabric or strip of material 28 provided with yieldable hair retaining elements, such as bristles or hooks 30, extending outwardly therefrom. While hooks and bowed pairs of cooperating bristles 30 are shown, other hair retaining or hair gripping means may be used, such as crossed bristles. Strip 28 is of sufficient length, so that the entire circumference of end portion 14 is covered and the ends of strip 28 are forced downwardly through slot 26 into the interior of core member 12, such as shown in FIGURE 3. Slot 26 has a width sufficient to frictionally receive the ends of the strip 28, so that the double thickness of material in slot 26 is securely held, and so retains strip 28 tightly about the circumference of end portion 14 during use. Also, the hair engaging elements 30 on opposite ends of the strip engage each other in slot 26 and cooperate to securely hold the ends of strip 28 in position within slot 26, such as indicated in FIGURE 3 at 32.

A similar construction is shown for securely retaining strip 28 on end portion 16.

Advantageously, end portions 14 and 16 have a greater outer diameter than the central portion 13 of curler 10. The enlarged ends facilitate the handling of curler 10 during the winding of the hair thereon, as well as being used to positively engage the hair of the user when the curler is in its rolled position, so as to hold the curler in operative position on the head of the user without requiring the use of external fastening devices, such as clips or pins. To aid in initially holding the ends of a tress of hair to be curled, central portion 13 of curler 10 has radially projecting hair gripping teeth 34, which also prevent lateral slipping of hair along the inner core.

In use, a quantity of individual strands of hair in a swatch is spread upon central portion 13 of curler 10 and curler 10 is rotated to wind the tress of hair. The user grips the end portions 14 and 16, and the strips of fabric at 28 mounted on these end portions aid in positively gripping the curler even if the hands of the user are wet and regardless of the lubricating qualities of the hair lotion used. The tress of hair is wound onto the roller device, preferably until the roller 10 is wound up tightly against the scalp of the user and then it is pressed against the head of the user, so that hair gripping elements 30 on strips of fabric 28 grasp and engage the portions of the hair of the user on the scalp, thereby retaining the curler 10 in its operative position without the use of any external fastening device.

To provide a more positive locking of material 28 on curler body 12, as shown in FIGURE 4, one end 36 of fabric 28 is doubled over when forced through opening 26. This prevents any accidental displacement of the ends of the strips.

A further embodiment is shown in FIGURE 5, wherein openings 26 in roller body 12 have serrated edges 38, or a series of pointed teeth, which positively hold material 28 in locked position about the periphery of end portions of 14 and 16. The serrated edges 38 positively hold material 28 in position.

The degree of rigidity of core member 12 exerts continuous tension on the strands forming the curl, and which automatically adjusts to the tension of the curl during its setting and drying process. The strips of material 28 do not adversely affect this rigidity, and yet allow comfort to the user during the curling operation. Since, only the end portions have material 28 about the peripheral surface, air is freely available to the wet tress of hair to speed drying. Also, the roller is light and flexible.

The strips of material 28 are securely held in position without sticking or using adhesive heretofore used. While

ribs 18, 20 and 22, 24 were shown aiding in positioning strips 28, they could be eliminated. Also, strips 28 could be molded with the hair engaging elements integrally attached.

What I claim is:

1. A hair curler comprising a generally cylindrical core, said core having a central portion and two end portions, each of said end portions having a longitudinal slot in its outer peripheral surface, an outer covering disposed about the outer peripheral surface of said end portions, and a plurality of flexible, resilient hair retaining elements secured to said coverings and extending substantially radially therefrom, the ends of said coverings being positioned inwardly through the corresponding slot securely retaining said covering tightly about the peripheral surface of said end portions.

2. A hair curler in accordance with claim 1, wherein said covering is a fabric and said bristles are filaments.

3. A hair curler in accordance with claim 1, wherein said end portions have a greater outer diameter than the central portion.

4. A hair curler in accordance with claim 1, wherein each of said end portions are defined by a pair of spaced annular, radially outwardly extending ribs.

5. A hair curler in accordance with claim 1, wherein one of the ends of said covering is doubled over in said slot to tightly hold said covering about its end portion.

6. A hair curler in accordance with claim 1, wherein at least one edge of the opening in said end portions is serrated to more tightly hold the ends of said covering.

7. A hair curler in accordance with claim 1, wherein the edges of said slots have a series of teeth for firmly engaging the covering about said ends.

8. A hair curler in accordance with claim 1, wherein said core is tubular and the outer peripheral surface of the central portion has open mesh construction.

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