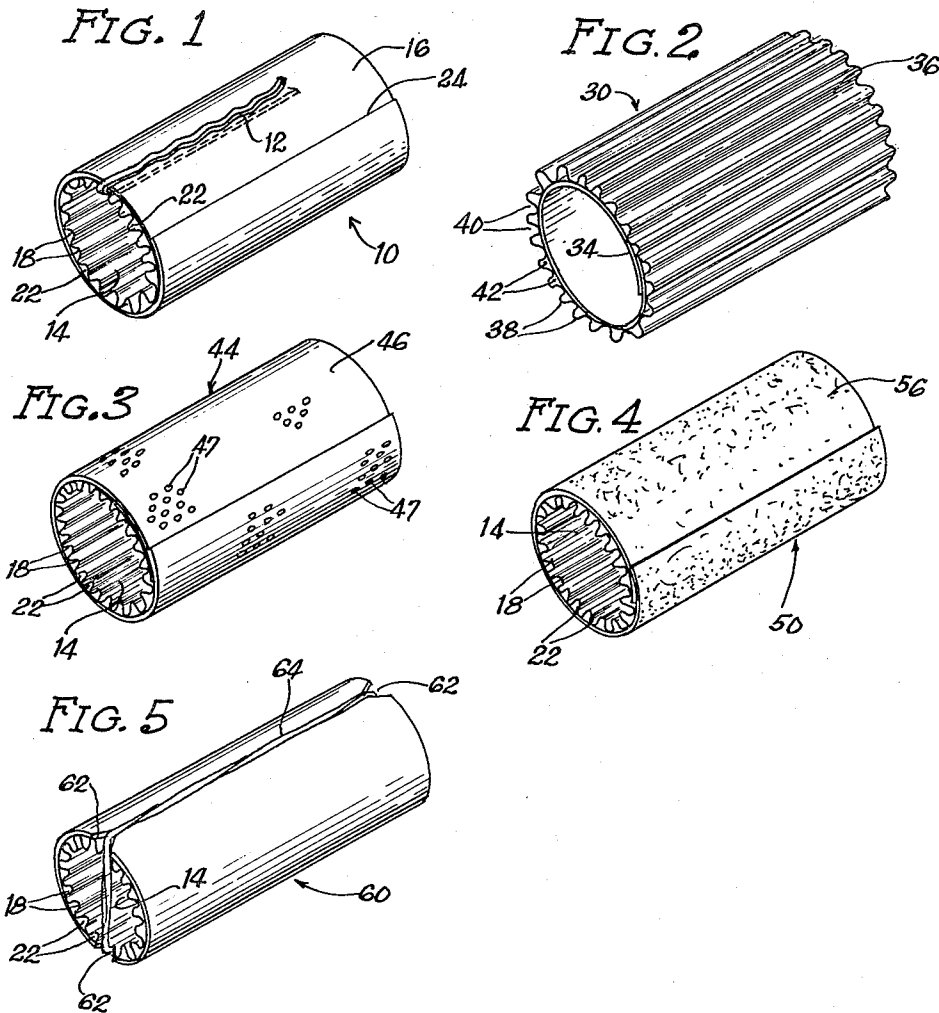


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R. M. KRULL
CORRUGATED PAPER HAIR CURLER

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INVENTOR.
Ruth M. Krull
BY
Ooms, McDougall, Williams & Hersh
Att'ys

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CORRUGATED PAPER HAIR CURLER
Ruth M. Krull, Red Arrow Lodge, P.O. Box 156,
Tomahawk, Wis.
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This invention relates to new and improved hair curlers for use in setting and waving hair.

One object of the present invention is to provide new and improved hair curler rollers which are disposable, sanitary, and extremely light in weight.

A further object is to provide a new and improved hair curler roller which is in the form of a hollow tube made of paper. Thus, the hair curlers of the present invention are so inexpensive that they may be discarded after a single using.

Another object is to provide a new and improved hair curler which may be slept upon comfortably, when the hair has been put up on the rollers for the night.

A further object is to provide a new and improved hair curler in the form of a hollow tubular roller made of two paper plies, at least one of which is formed with longitudinal corrugations forming channels adapted to receive bobby pins or the like, to prevent the hair from unrolling from the roller.

Another object is to provide a new and improved hair curler roller which is made of paper and which has its outer surface formed of absorbent material, to promote the drying of the hair.

A further object is to provide a new and improved paper hair curler having its outer portion impregnated with a hair treating compound, such as a waving compound, a dandruff treatment, a perfume, or the like.

Still another object of the present invention is to provide new and improved hair curlers which are easy and convenient to use, yet extremely low in cost.

Further objects and advantages of the present invention will appear from the following description, taken with the accompanying drawings, in which:

FIG. 1 is a perspective view of a paper hair curler roller, having corrugations on the inside, to be described as an illustrative embodiment of the present invention.

FIG. 2 is a perspective view of a modified paper hair curler roller, having corrugations on the outside.

FIG. 3 is a perspective view of another modified hair curler roller, similar to the one shown in FIG. 1, but having a foraminous or perforated outer ply.

FIG. 4 is a perspective view of another embodiment, similar to that of FIG. 1, but having an outer ply made of absorbent material which may be impregnated with various hair treating compounds.

FIG. 5 is a perspective view of still another hair curler roller, similar to the one of FIG. 1, but notched to receive and retain an elastic band, made of rubber or the like, for holding the hair on the roller.

It will be seen that FIG. 1 illustrates a hair curler 10 in the form of a hollow, tubular, generally cylindrical roller made of paper or cardboard. In curling the hair, the roller 10 is used by rolling a lock of the hair onto the outside of the curler. The roller may then be secured in place in any suitable manner. For example, a bobby pin 12 may be slipped over the wall of the roller, and over the hair wound on the roller at one or both ends of the roller, generally in the manner illustrated in FIG. 1. If necessary, several bobby pins may be employed to secure the roller in place.

Inasmuch as the hair curler roller 10 is made of paper, it is relatively soft and compliant, and thus is comfortable to wear, even when slept upon after putting up the hair for the night. Moreover, the roller is light in weight so that the necessary number of rollers, employed to put

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up the hair, may be carried on the head without any appreciable discomfort or fatigue. Since the roller is made of paper, it is very low in cost and thus may be discarded after a single use. Thus, the roller achieves the ultimate in cleanliness and sanitation.

While the roller 10 may be made of plain paper or cardboard, it is preferred that the roller be made with an inner ply 14 and an outer ply 16. The plies may be suitably glued or otherwise bonded together. Preferably, one of the plies is formed with longitudinal corrugations 18. In the embodiment shown in FIG. 1, the corrugations 18 are formed in the inner ply 14. The outer ply 16 is of plain cylindrical form, i.e. smooth and round. The corrugations 18 are highly advantageous because they provide channels for receiving and retaining the bobby pin 12. The channels prevent the bobby pins from slipping along the circumference of the roller. Thus, the roller is retained securely in place when it is covered with coils of hair. Each corrugation 18 also provides a channel or passage 22 between the corrugation and the outer ply 16. If desired, the bobby pin 12 may be slipped into the channels or passages 22. The corrugations 18 also reinforce the roller 10 so as to give the roller enhanced resistance to bending and other deformation.

The outer ply 16 is shown with a longitudinal overlapping seam 24, but it may be formed as a spirally wound tube, or in any other suitable manner.

FIG. 2 illustrates a modified roller 30 having inner and outer plies 34 and 36. In this case, the outer ply 36 is formed with longitudinal corrugations 38, while the inner ply 34 is in the form of a plain substantially cylindrical tube, i.e. smooth and round. As shown, the corrugations 38 form channels 40 on the outside of the roller 30. These channels tend to prevent the hair from slipping off the roller. Moreover, each corrugation provides a channel or passage between the corrugation and the inner ply 34. A bobby pin may be slipped into each of the passages 42, as desired, so as to prevent the bobby pin from slipping around the circumference of the roller 30.

FIG. 3 illustrates a modified roller 44 which is similar to the roller 10 of FIG. 1, except that it has a foraminous outer ply 46. Thus, a large number of perforations 47 are formed in the outer ply or wall 46. These perforations 47 provide ventilation which promotes the drying of the hair which is rolled upon the roller. Moreover, the perforations reduce the weight of the roller 44. The foraminous outer ply 46 may be made of perforated paper, or of a woven or netted fabric, or the like. Plastic mesh materials may also be employed in the outer ply 46.

In the hair curling rollers of the present invention, it is preferred to bond the inner and outer plies with a waterproof or water-resistant adhesive so that the rollers will not be damaged when wet hair is put up on the rollers. Moreover, the roller, particularly the outer ply, may be made resistant to the penetration of liquids such as water, waving solutions and hair spray. Thus, the outer ply may be waxed, or may be coated or impregnated with a suitable material to resist the penetration of liquids. In some cases, the outer ply may be made of plastic sheet material.

Alternatively, the outer ply, or at least the outer portion of the outer ply, may be made of absorbent material. Thus, FIG. 4 illustrates another modified hair curling roller 50 having an outer ply 56 made of blotting paper or some other absorbent material, such as fabric or the like. The absorbent material soaks up moisture from the hair and thus promotes drying of the hair. Otherwise, the roller 50 may be similar to the roller 10 of FIG. 1. The corrugations 18 of the inner ply 14 provide ventilation which accelerates the drying of the absorbent outer ply 56. If desired, the absorbent outer ply 56 may be impregnated with a hair treating compound, such as a wav-

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ing compound, a perfume, a dandruff treatment or the like. The hair treating compounds may be activated and transferred to the hair by moisture, which may be supplied directly from the hair by putting up the hair wet upon the roller. Alternatively, the hair and the roller may be moistened after the hair has been rolled onto the roller. By impregnating the roller with a suitable permanent waving compound, the roller may be employed to give a permanent wave.

FIG. 5 illustrates a modified roller 60 which is the same as the roller shown in FIG. 1, except that the roller 60 is formed with diametrically opposite notches 62 at each end for receiving and retaining an elastic band 64 made of rubber or the like. The elastic band 64 may be employed to secure the roller in place after hair has been rolled upon the roller.

If desired, the rollers of the present invention may be tinted or colored to match various shades of hair coloring. In this way, the rollers will be less noticeable when the hair is put up on the rollers. Alternatively, the rollers may be brightly colored to achieve various decorative effects.

Because the rollers may be made of paper, they can be made at extremely low cost, so that it is economically feasible to discard the rollers after a single use. Thus, if used only once, the rollers are entirely sanitary. They eliminate any possibility of spreading infection from one person to another. It will be evident that the rollers will find a mass market among women generally, for home use. In addition, the rollers are of great value to institutional users, such as beauty parlors, hospitals, homes for the aged, mental hospitals, and other public institutions. Because the rollers are made entirely of paper, without any metal, the rollers are safe to use in mental hospitals, prisons, and other places where security is a consideration.

The rollers of the present invention may be made in various sizes. Thus, the length and diameter of the rollers may be varied as desired. Small-sized rollers may be made for use by children and to make tight curls. Larger rollers may be used by adults and to produce looser curls.

Girls and women of all ages will find that the rollers of the present invention are unmatched for comfort, convenience, sanitation, effectiveness and economy.

Various other modifications, alternative constructions and equivalents may be employed without departing from

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the true spirit and scope of the invention, as exemplified in the foregoing description and defined in the following claims.

I claim:

1. A hair curler roller comprising an inner ply and an outer ply of pliable paper with the plies being bonded one to the other, one of said plies being in the form of a hollow tubular member which is smooth and round, the other ply being in the form of a corrugated member with the corrugations being circumferentially spaced apart and extending axially substantially throughout its length, said plies being arranged one within the other and dimensioned so that the crests of the corrugated ply which extend in the direction of the plain tubular ply are in contacting relation with the adjacent surface of the plain tubular ply and define circumferentially spaced apart longitudinally extending channels therebetween.

2. A hair curler roller as claimed in claim 1 in which the corrugated ply constitutes the inner ply.

3. A hair curler roller as claimed in claim 1 in which the corrugated ply constitutes the outer ply.

4. A hair curler roller as claimed in claim 1 in which the outer surface of the outer ply is of absorbent material.

5. A hair curler roller as claimed in claim 1 in which the outer ply is foraminous.

6. A hair curler roller as claimed in claim 1 in which the outer ply is fluid impervious.

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