United States Patent [19]

Scott

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[54] **MULTIPLE SLOTTED HAIR STYLING AND PERMANENT WAVE ROLLERS**

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[52] **U.S. Cl.** **132/39**

[51] **Int. Cl.** **A45d 2/02**

[58] **Field of Search** 132/39, 40, 42, 33, 132/39

[56] **References Cited**

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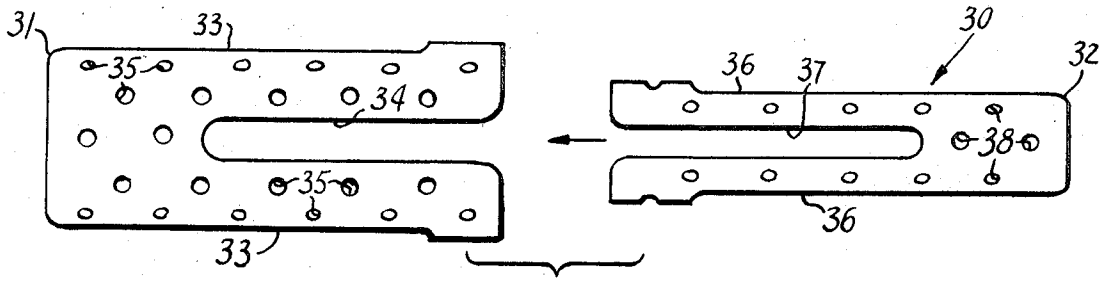
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Assistant Examiner—Gregory E. McNeill
Attorney—Alexander B. Blair

[57] **ABSTRACT**

Generally cylindrical hair rollers having multiple slots extending therein from one or both ends are provided in several sizes to permit them to be interfitted with hair rolled thereon. The roller enables the hair to be curled more on the ends of the hair and to be straight or slightly wavy near the scalp. The multiple slotted rollers facilitate the drying of the hair by permitting the passage of drying air through the slots and through perforations in the roller. The smaller roller can be inserted into the larger roller from either end to position the hair extending from the smaller roller through one of the slots in the larger roller.

1 Claim, 7 Drawing Figures



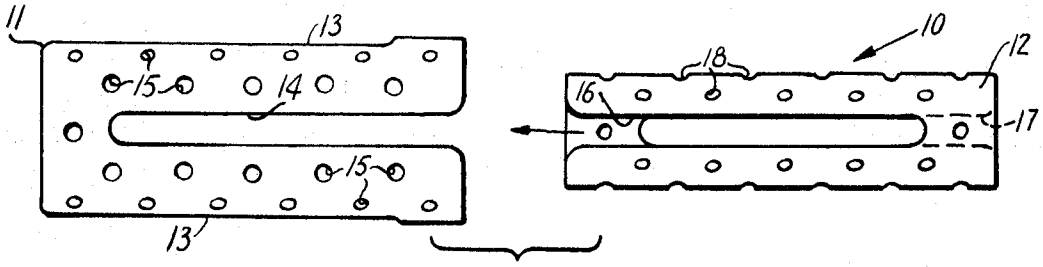


FIG. 1

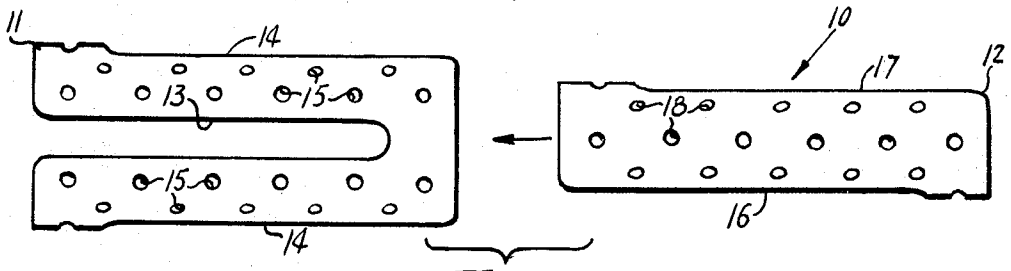


FIG. 2

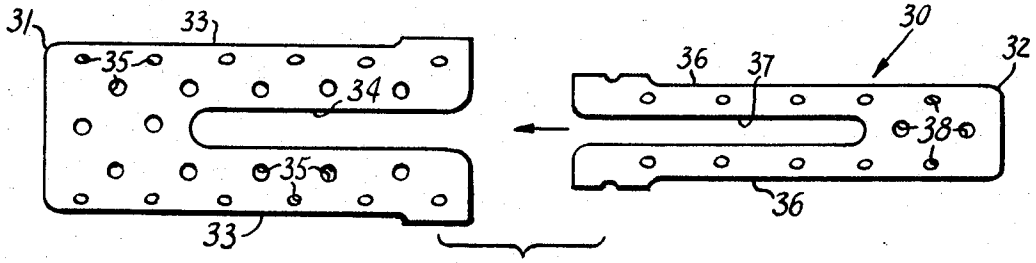


FIG. 4

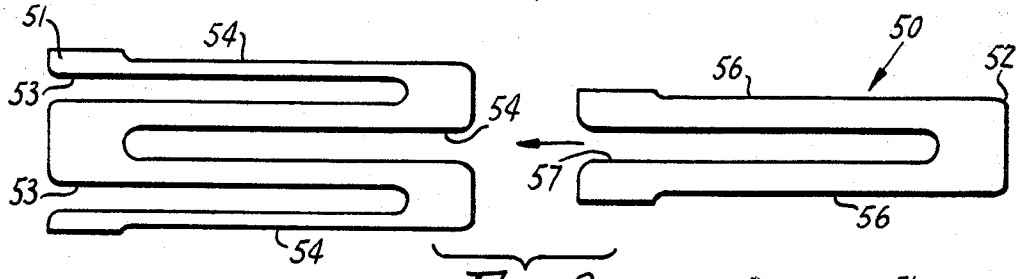


FIG. 6

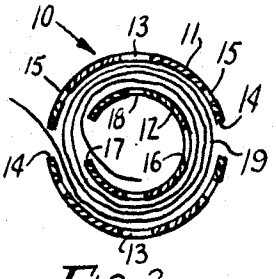


FIG. 3

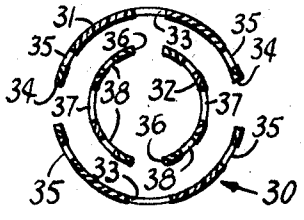


FIG. 5

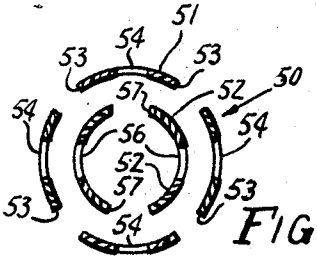


FIG. 7

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MULTIPLE SLOTTED HAIR STYLING AND PERMANENT WAVE ROLLERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to hair rollers of the interfitting generally cylindrical type.

2. Summary of the Invention

A relatively large generally cylindrical open ended roller is provided with a plurality of slots opening into opposite ends thereof and extending substantially completely the length of the roller. A somewhat smaller roller is also provided with a plurality of slots opening therein throughout substantially the length of the roller. The hair is adapted to be wound on the smaller roller and inserted in the larger roller with the hair projecting through one of the slots. The slots and perforations in the rollers permit the free passage of waving chemicals and drying air during the waving operation. Conventional electric heat may also be used when giving a hot wave with the rollers of the instant invention.

The primary object of the invention is to provide a hair roller system which is inexpensive to manufacture, simple to use and which efficiently passes both waving chemicals and air.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded side elevation of the invention;

FIG. 2 is an exploded top plan view of the structure illustrated in FIG. 1;

FIG. 3 is a transverse sectional view with the rollers assembled and hair wound thereon;

FIG. 4 is an exploded side elevational view of a modified form of the invention;

FIG. 5 is a transverse cross section showing the rollers in assembled position;

FIG. 6 is an exploded side elevational view of another modified form of the invention; and

FIG. 7 is a transverse sectional view of the structure illustrated in FIG. 6 showing the rollers in assembled position.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures the reference numeral **10** indicates generally a hair roller constructed in accordance with the invention.

The hair roller **10** includes a larger cylindrical roller **11** and a somewhat smaller cylindrical roller **12**, with the inner diameter of the roller **11** being substantially larger than the outer diameter of the roller **12**. The rollers **11, 12** are formed of plastic, pressed cardboard, paper, light metals, or other suitable natural and/or man made materials.

The roller **11** has a pair of slots **13** extending in from one end of the roller **11** on opposite sides thereof. The slots **13** extends for approximately 85 percent of the length of the roller **11** with the length being varied as desired.

A pair of slots **14** extend into the roller **11** from the end thereof opposite the slots **13** and are arranged in diametrically opposed relation intermediate the slots **13**. The slots **14** are of the same length as the slots **13**.

A plurality of perforations **15** are formed in the roller **11** to permit the free passage of waving chemicals and drying air therethrough. It should be noted that the waving chemicals and drying air may also freely pass through the slots **13** and the slots **14**.

The roller **12** has an elongate slot **16** opening in from one end thereof and extending for approximately 85 percent of the length of the roller **12**. The length of the slot **16** may be varied as required. A slot **17** extends in from the opposite end of the roller **12** in diametrically opposed relation to the slot **16** and has the same length as the slot **16**. The roller **12** is provided with a plurality of perforations **18** to freely pass waving chemicals and drying air.

In the use and operation of the invention as illustrated in FIGS. **1** through **3** hair **19** is rolled on the roller **12** and the roller **11** is then forced over the roller **12** and the hair **19** thereon moving axially. The hair **19** extends through one of the slots **13, 14**. The hair **19** may then be wound on the large roller **11** and secured thereon by a bobbypin or the like. In some instances particularly when dealing with short hair the hair **19** will be wound almost completely on the smaller roller **12** and extend from the slot **14** directly to the head of the user.

Waving chemicals may be applied to the hair while on the rollers **11, 12** and will in such cases flow through the slots **13, 14** and slots **16, 17** as well as the perforations **15** and **18**. At a later point in the waving operation drying air will flow along the same paths as described for the waving chemicals. It should be understood that conventional permanent wave heating elements may be used with the rollers **11, 12** when desired.

Referring now to FIGS. **4** and **6** a modified form of hair waving roller is indicated generally at **30**. The hair waving roller **30** includes a generally cylindrical large roller **31** and a generally cylindrical somewhat smaller roller **32**. The ratio of size of the roller **31** with respect to the roller **32** is the same as the ratio of size between the roller **11** and the roller **12**. The roller **31** has a pair of diametrically opposed slots **33** opening in from one end thereof and extending substantially **85%** of the distance between the opposite ends of the roller **31**. A pair of slots **34** opening from the opposite end of the roller **31** in diametrically opposed relation intermediate the slots **33**. The slots **34** extends approximately two-thirds of the distance from end to end of the roller **31** as can be seen in FIG. **4**. A plurality of perforations **35** are formed in the roller **31** to serve in the same capacity as the perforations **15** in a preferred form of the invention.

The smaller roller **32** has a pair of slots **36** opening in from one end thereof in diametrically opposed relation. A second pair of slots **37** open into the opposite end of the roller **32** and are in diametrically opposed relation intermediate the slots **36**. The slots **36** extend approximately 85 percent of the distance between the ends of the roller **32** and the slots **37** extend approximately two-thirds of the length of the roller **32**. The roller **32** is provided with a plurality of perforations **38** serving the same function as the perforations **18** in the preferred form of the invention.

The use and operation of the hair wave rollers **30** is identical to the use and operation of the hair wave rollers **10**.

Referring now to FIGS. 6 and 7 another modified form of hair roller is illustrated generally at **50**. The hair roller **50** includes a relatively large roller **51** and a somewhat smaller roller **52**.

The roller **51** has four equispaced slots **53** opening inwardly from one end thereof and extending substantially **85%** of the length of the roller **51**. Four slots **54** open into the end of the roller **51** opposite the slots **53** and are equispaced circumferentially. The slots **54** are positioned intermediate the slots **53** as can be seen in FIG. **6**.

The roller **52** has a pair of slots **56** arranged in diametrically opposed relation and opening through one end of the roller **52** and extending substantially 85 percent of the length of the roller **52**. A pair of slots **57** arranged in diametrically opposed realtion open into the opposite end of the roller **52** intermediate the slots **56**. The slot **57** extend substantially 85 percent of the length of the roller **52**. The slots **53, 54** and the slots **56, 57** provide sufficient access for the waving chemical and drying air so that further perforations in the rollers **51** and **52** are not required.

The use and operation of the hair waving roller **50** is identical to that of the hair waving rollers **10** and **30**.

Having thus described the preferred embodiments of the invention it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the spirit of the invention.

I claim:

1. A hair curl roller set comprising a hollow cylindrical hair roller having a plurality of slots extending substantially 85 percent of the distance between opposite ends thereof, a second hollow cylindrical hair roller having an inner diameter substantially greater than the outer diameter of said first hollow cylindrical hair roller and having a plurality of elongate slots extending longitudinally substantially 85 percent of the distance between opposite ends thereof, said smaller roller being adapted to be inserted endwise in said larger roller with hair wound on said smaller roller and extending through one of the slots in said larger roller, said plurality of slots in each of said rollers including two diametrically opposed slots opening through one end of each of said rollers and two diametrically opposed slots intermediate said first slots opening through the opposite end, respectively, of such of said rollers, said rollers each having a plurality of perforations to permit the flow of hair waving chemicals and drying air therethrough.

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