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APPARATUS FOR FORMING PIN CURL PERMANENT WAVE

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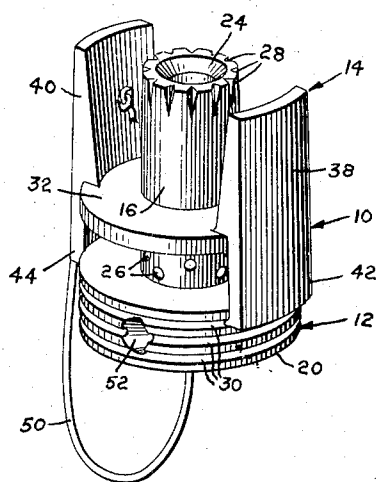


Fig. 1

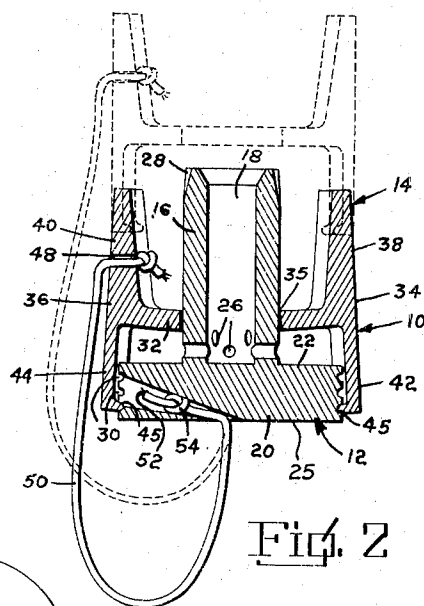


Fig. 2

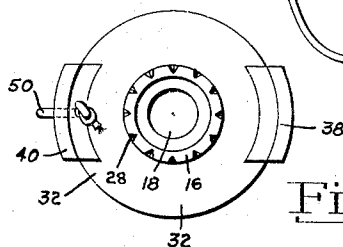


Fig. 3

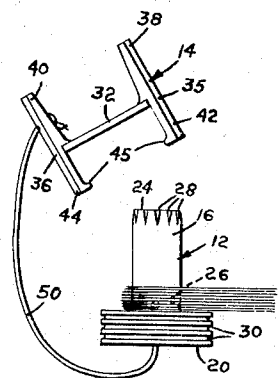


Fig. 4

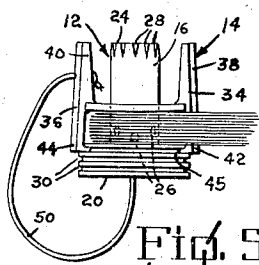


Fig. 5

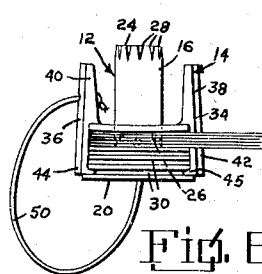


Fig. 6

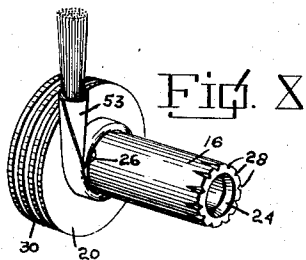


Fig. 8

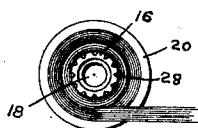


Fig. 7

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APPARATUS FOR FORMING PIN CURL PERMANENT WAVE

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This invention relates to improvements in hair waving devices and is particularly directed to a novel pin curl permanent wave apparatus and method of forming a pin curl.

A primary object of this invention is to provide a device for forming sculpture pin curls in a simple and expeditious manner with complete uniformity of size of the curls.

Pin curl permanent waves are conventionally given by winding strands of hair in a curl around a finger and holding the formed curl in place by a clip or bobbie pin. The curl is only held in place by such a clip or bobbie pin so that when the curl is softened by the permanent wave solution to take its new form and then contracted again during the neutralizing process, there is nothing for the curl to conform to as it takes on its new form. Consequently, a pin curl permanent wave relaxes much quicker than a wave set on regular cold wave rods.

A main object of this invention is to provide a method and means for forming a pin curl permanent wave that is durable and which will last as long as one given on regular cold wave rods. With the device and method of the present invention, it is possible to form a durable, softer and more natural looking curl and also to style the hair in the same operation.

The foregoing and ancillary objects are attained by this invention, the preferred form of which is set forth in the following description and illustrated in the accompanying drawing, wherein;

Fig. 1 is a perspective view of the device of this invention;

Fig. 2 is a longitudinal sectional view thereof;

Fig. 3 is an end elevational view thereof;

Figs. 4 to 6 are side elevational views of the device, drawn to actual size, and illustrating the steps of the method of forming a pin curl;

Fig. 7 is an end elevational view of the device, as shown in Fig. 4, and,

Fig. 8 is a perspective view of the device showing the end of the hair strands wrapped with an aid to hold the stray ends as the strands are wrapped around the rod of the device.

Referring now more particularly to the accompanying drawing, the pin curl forming permanent wave device 10 includes a rod member 12 and a companion pressure member 14. The term "rod" is used in its generic sense in the trade and is defined as any means or member around which hair is wound, preparatory to any kind of permanent wave.

The rod member 12 includes a rod or spindle 16 which is axially centrally bored, as at 18, so as to be hollow or tubular. A disc like enlargement or base member 20 is formed integrally at one end of the rod and has opposing flat faces 22 and 25, the face 22 being the inner face and being disposed normal to the axis of the rod. The opposite end 24 of the rod is free and is beveled or chamfered to receive the spouts or nozzle elements of solution applicators (not shown) which dispense solu-

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tions, as will be explained, into the bore 18. The rod is formed adjacent the enlargement 20 with radial ports 26 which are spaced circumferentially around the rod and which provide passages for the solutions to flow from the bore to the outside of the rod. The bore is, of course, closed at one end by the enlargement so that the solutions flow radially outwardly therefrom, through the ports. The outer surface of the rod is smooth and cylindrical from the closed end to a point, adjacent the outer or free end, the closed end being the inner end of the rod. The outer end 24 of the rod is formed with axial triangularly formed grooves or indentations 28, which are circumferentially spaced and which provide a serrated or roughened exterior surface at the end so that the end can be securely gripped by the thumb and forefinger of an operator's hand, as will be described.

The enlargement or base member 20 is formed with peripheral grooves 30 which are equally spaced apart axially of the base member and which are of an equal depth and constitute a part of an adjustable securing means for connecting the rod member 12 and the pressure member 14 together.

The pressure member 14 is of one piece construction, as is the rod member, and includes a pressure disc 32, which is flexible under pressure, as will be described. The pressure disc is formed with a central opening 35 to slidably receive the rod 16 and is of a diameter equal to the base member. The pressure disc is cooperative with the face 22 of the base member to clampingly engage a hair strand, as will be described and as shown in Figs. 5 and 6.

The pressure member also includes a pair of arms 35 and 36 which are integral with the disc 32 and extend in parallelism and are disposed in confronting relation at diametrically opposite points on disc adjacent the periphery thereof. The arms extend above and below or to opposite sides of the opposing faces of the disc and include upper actuating end portions 38 and 40, which are thick for strength. The lower clamping end portions 42 and 44 of the arms are relatively thin and terminate at their outer ends in right angular, laterally intumed rounded beads or flanges 45 which are adapted to fit in the grooves. The arms are arcuate in cross-section complementary to the curvature of the disc and base member and the lower end portions 42 and 44 are formed on the same radius as the base member. The upper end portions 38 and 40 are of substantially truncated triangular configuration for rigidity purposes, the thicker ends of such portions being at the disc. The disc is normally flat but can be flexed, as shown in full lines in Fig. 2, to spread the clamping end portions 42 and 44 apart. The disc is flexed under pinching pressure applied to the actuating end portions 38 and 40 of the arms and, upon the release of such end portions, the disc returns to its normal flat shape and returns the arms to their normal parallel positions. The inherent resiliency of the disc permits the arms to be used as a part of the securing means for connecting the rod member 12 and the pressure member 14 together.

One of the upper end portions of one of the arms is formed with a lateral opening 48 which receives one end of a flexible member 50 that connects the rod member 12 and the pressure member 14 together. The flexible member, which may be nylon or plastic covered cord or the like, is anchored by a knot in the opening 48. The base member is formed with an obliquely arranged, tapered or counterbored hole 52 in which the knotted opposite end 54 of the connecting member 50 is socketed. The hole 52 being tapered from the side wall to the end face 25 of the base member so that the knotted end will tighten in the hole when the connecting member 50 is pulled.

In forming a pin curl, in the process of forming a pin curl permanent wave, a strand or section of hair, which strand or section preferably is one half inch to one inch square, is initially formed. The strand is held out from the head and a curling solution is applied to cover the strand. The end of the strand is then wrapped in a paper or similar end aid 53 (as shown in Fig. 8) to facilitate catching all the ends of the hairs and hold them firmly. The use of the end aids is not necessary but such aids do prevent "fish-hooks" on the ends.

The wrapped (or unwrapped, as the case may be) end of the strand is then wound around the inner end of the rod member 12, as shown in Fig. 4. When the strand is wound to the scalp, as shown in Fig. 5, the pressure member is applied to the rod member. In this respect, the disc 32 is moved down on the rod member until it fits tightly against the strand (Fig. 6). The clamping end portions 42 and 44 of the arms are spread apart to pass over the periphery of the base member until the disc is tight against the strand, when the end portions 38 and 40 are released to permit the beads 45 to engage in an adjoining groove 30. The thickness of the strand will determine which groove is used. Of course, the fingers of the operator's other hand compress the end portions 38 and 40 together, as the disc 32 is moved down on the rod member and when the disc tightly abuts the strand, the end portions 38 and 40 are released.

The pressure disc 32 now fits tightly against the wound strand and the disc is held in place by the engagement of the beads 45 in one of the grooves 30.

The arms are held while the end 24 of the rod member is grasped and turned in the direction of the curl to tighten it and bring it closer to the scalp. When the curl has been tightened to the ultimate degree, the pressure member is pushed downwardly to force the pressure disc to its lowest possible curl compressing position so as to flatten the curl. The tightly wound and compressed strand is then resaturated with permanent wave solution, which is applied between the arms onto the outside of the curl and, through the bore of the rod member and ports, to the inside of the curl, so that the curl is completely saturated. The wound curl is exposed between the lower end portions of the arms and this provides ample space to apply the solution to the outside of the curl and the bore and ports provide ample passage means for the solution to the inside of the curl.

After allowing the necessary amount of time required for the desired curl, the curl is rinsed thoroughly in warm water and blotted dry with a towel or the like. A suitable neutralizer is then applied to the curl at the outside and through the bore in the rod member to the inside so that the solution penetrates and permeates the entire curl.

When neutralization is completed, the curl is rinsed thoroughly in warm water and blotted dry with a towel. The device is left on until drying is complete and then the pressure member is removed by compressing the arms and sliding the pressure disc off of the rod member. The

curl is then slipped off the rod without distortion. The hair is then combed into the planned hair style.

While the use of the device and method has been described in the forming of only one curl, it is, of course, obvious that the hair is formed into a number of strands and each strand is treated, as aforesaid, at the same time.

While the best known form of apparatus and best manner of practicing the method of this invention have been shown in the drawing and described herein, other forms and methods may be commercially realized as come within the scope of the invention defined by the appended claims.

What is claimed is:

1. A pin curl permanent wave device comprising a rod member having as annular base on one end, said base radially extending from the rod member and having grooves in its periphery and spaced apart axially of the base, a pressure disc having a central hole receiving the rod, the pressure disc being slidable on the rod to compress a strand of hair wound on the rod against the base, a pair of diametrically opposed arms extending to opposite faces of the disc and disposed in parallel confronting relation, said arms including upper and lower end portions disposed above and below the opposite faces of the disc, the lower end portions being positionable over the periphery of the base and having inwardly disposed beads adapted to fit in the grooves to lock the pressure disc on the rod member and said pressure disc being inherently resilient and flexible to be flexed by a compressing of the upper end portions to spread the lower end portions apart.

2. A device as claimed in claim 1, wherein said rod member is tubular and has an open opposing end and is formed, adjacent the base, with radial ports for the passage of solution to the strand of hair, the open end being beveled for the introduction of a solution injector into the rod member.

3. A pin curl permanent wave device comprising a rod member having a radial enlargement adjacent one end, an inherently resilient and flexible pressure disc slidable on the rod member axially thereof to compress a hair strand wound on the rod member against the enlargement, a pair of complementary arms provided at the periphery of the disc at right angles thereto and extending to opposite sides of the disc, complementary locking and interengaging means carried by the arms and the enlargement, said arms being spread apart by a flexing of the disc to fit over the periphery of the enlargement so that the complementary locking means can engage to lock the disc in selected position relative to the enlargement.

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