Jan. 29, 1957 J. EVANGELOU 2,779,343

HAIR WAVING AND CURLING DEVICE

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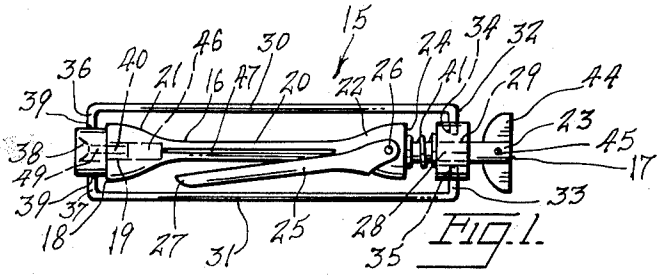


FIG. 1.

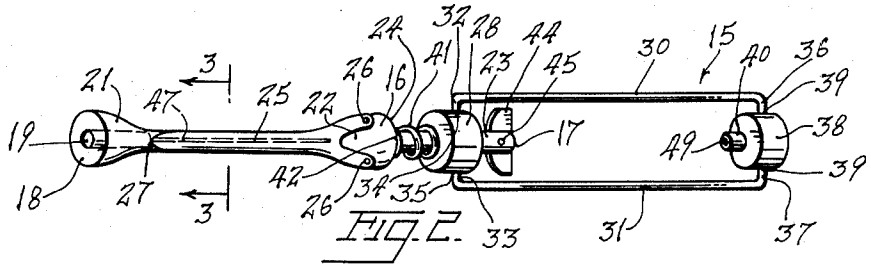


FIG. 2.

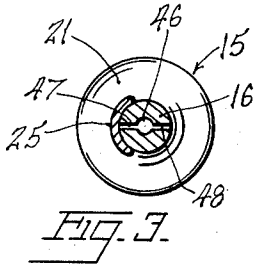


FIG. 3.

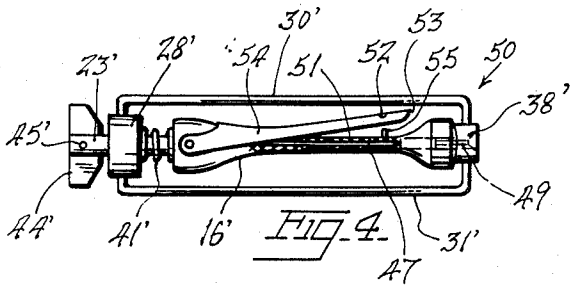


FIG. 4.

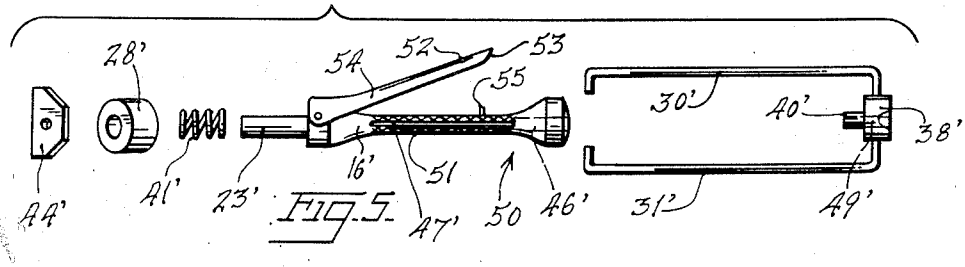


FIG. 5.

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HAIR WAVING AND CURLING DEVICE

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5 Claims. (Cl. 132—41)

This invention relates to new and useful improvements in hair waving and curling devices.

More particularly, the present invention proposes the construction of an improved cold wave winder which can be used simply and conveniently to hold hair in a particular condition and position during a permanent wave operation or a home cold wave operation.

Still further, the present invention proposes forming the cold wave winder with a rotatable rod and with a pair of spaced arms pivotally connected to a cap member having a plug adapted removably and rotatably to seat in an axial end recess in the rod to hold the arms in spaced parallel relation with the rod when the plug is so seated.

Another object of the present invention proposes constructing the cold wave winder with a sleeve member rotatably mounted on the rod adjacent one end thereof and pivotally connecting the arm members each at one end to the sleeve so that when the plug is pulled from the recess the arm members may be turned away from the rod to permit removal of the resultant cold wave or curl of hair from the rod.

As a further object, the present invention proposes constructing the cold wave winder with a coil spring resiliently, removably and rotatably to hold the plug in the recess so that hair may be wound on the rod between the spaced arm members.

As a still further object, the present invention proposes providing the rod with an axial fluid passage and with peripheral fluid exit slot openings so that neutralizers and other fluids may be injected through the rod to the hair rolled thereon during the waving or curling process.

The present invention further proposes forming the cold wave winder with a hair clamp pivotally secured at one end to the rod and with a tooth opening at the free end of the clamp removably to fit over a tooth disposed on the rod.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a top plan view of the cold wave winder of the present invention shown in closed position.

Fig. 2 is a perspective view of the structure shown in Fig. 1 but with the winder in open position.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a view similar to Fig. 1 but illustrating a modification of the present invention.

Fig. 5 is an exploded view of the structure shown in Fig. 4.

The cold wave winder, in accordance with the first form of the invention illustrated in Figs. 1, 2 and 3, is generally designated by the reference numeral 15.

Cold wave winder 15 has a rod 16 on which hair can be wound. The rod may be made of metal, wood, plastic or other rigid material. Rod 16 has a handle end 17 and another end 18 with an axial plug recess 19 therein. Rod 16 also has a center portion 20 with outwardly and upwardly tapering enlarged conical portions 21 and 22 at each end of the center portion 20. A shank 23 of reduced diameter is provided on the rod 16 adjacent the handle end 17. The reduced diameter of the shank 23 results in an abutment 24 being disposed at one end of the shank.

Mounted on the rod 16 is a hair clamp 25 having one end pivotally secured by pin 26 to the rod 16. The hair clamp 25 has a free end 27 and is transversely curved to fit against the center portion 20 of the rod 16.

A sleeve member 28 having a bore 29 is slidably mounted on the shank 23 of rod 16 and a pair of arms or arm members 30 and 31, preferably made of stiff wire or the like, have ends 32 and 33, respectively, which are pivotally secured in spaced relation on the sleeve member 28. The ends 32 and 33 of the arm members 30 and 31 fit into the arm member openings 34 and 35 in the sleeve member 28.

Arm members 30 and 31 have other ends 36 and 37, respectively, which are pivotally secured to a cap member 38 fitting in arm openings 39 in the cap member. The cap member 38 has a plug 40 at one end adapted removably to seat in the axial plug recess 19 in the end 18 of rod 16.

Mounted on the shank 23 and around it is a coil spring 41 disposed so that one end 42 bears against the abutment 24 of rod 16 and the other end 43 of the spring bears against the sleeve member 28.

A handle 44 is mounted on the handle end of rod 16 by a pin 45 and the handle prevents the sleeve or slide member 28 from coming off the shank 23.

Rod 16 contains an axial fluid passage 46 (see Fig. 3) extending from the axial plug recess 19 substantially the length of the rod to the upwardly tapering enlarged conical portion 22. In addition, the central portion 20 of rod 19 is provided with fluid exit slot openings 47 and 48 connected with the passage 46 so that neutralizers and other fluids may be injected through an axial opening 49 in cap member 38 into the passage 46 and through slot openings 47 and 48 to hair rolled on the rod 16 during the hair waving and curling process.

To operate the new cold wave winder, the hair clamp 25 is raised and a strand of hair and paper or other hair waving material is placed on the rod 16 and clamped down by clamp 25. The cap member 38 is held by the operator while the handle 44 is rotated clockwise or counter-clockwise, thereby winding the strand of hair around the clamp 25 and the rod 16, to the scalp line or any desired point along the strand of hair. To remove the strand of hair from the cold wave winder, the operator unwinds the strand of hair by reverse rotation of the handle and raising the clamp when reaching the end of the strand of hair.

The modification of the invention illustrated in Figs. 4 and 5 is characterized by the provision of a cold wave winder 50 having most parts identical with those of the cold wave winder 15 illustrated in Figs. 1, 2 and 3 and described above and having such like parts designated by like reference numerals but primed to distinguish the figures. Cold wave winder 50, however, has a knurled center portion 51 on rod 16' and a radially and peripherally disposed hair clamp opening 52 is provided in the free end 53 of the hair clamp 54. A tooth 55 is secured to the rod 16 and disposed removably to seat in the opening 52.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that

I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A cold wave winder comprising a rod on which hair can be wound, said rod having a handle end and another end with an axial plug recess therein, a hair clamp having one end pivotally secured to the rod between said ends thereof, a shank on the rod adjacent the handle end, a sleeve member slidably mounted on the shank, a pair of spaced arm members each having two ends one of which being pivotally secured to the sleeve member, a cap member pivotally secured to the other ends of the spaced arm members, a plug on the cap member adapted removably to seat in the axial plug recess of the rod, spring means to hold the cap member plug in the axial plug recess of the rod, said hair clamp having a radially and peripherally disposed hair clamp tooth opening in the free end thereof and said rod having a tooth thereon removably to seat in said hair clamp tooth opening, and a handle mounted on the handle end of the rod.

2. A cold wave winder comprising a rod on which hair can be wound, said rod having a handle end and another end with an axial plug recess therein, a hair clamp having one end pivotally secured to the rod between said ends thereof, a shank on the rod adjacent the handle end, a sleeve member slidably mounted on the shank, a pair of spaced arm members each having two ends one of which being pivotally secured to the sleeve member, a cap member pivotally secured to the other ends of the spaced arm members, a plug on the cap member adapted removably to seat in the axial plug recess of the rod, spring means to hold the cap member plug in the axial plug recess of the rod, said rod having a cylindrical center portion and said hair clamp being disposed on the rod adjacent the center portion of the rod and transversely curved to fit thereagainst, and a handle mounted on the handle end of the rod.

3. A cold wave winder comprising a rod on which hair can be wound, said rod having a handle end and another end with an axial plug recess therein, a hair clamp having one end pivotally secured to the rod between said ends thereof, a shank on the rod adjacent the handle end, a sleeve member slidably mounted on the shank, a pair of spaced arm members each having two ends one of which being pivotally secured to the sleeve member, a cap member pivotally secured to the other ends of the spaced arm members, a plug on the cap member adapted removably to seat in the axial plug recess of the rod, and means to hold the cap member plug in the axial plug recess of the rod, a handle mounted on the handle end of the rod, said means being resilient means, said shank being of reduced diameter with an abutment at one end thereof, said resilient means being a coil spring mounted on and around the shank, said spring having one end bearing against said abutment and another end bearing against said sleeve member.

4. A cold wave winder comprising a rod on which hair can be wound, said rod having a handle end and another end with an axial plug recess therein, a hair clamp having one end pivotally secured to the rod between said ends thereof, a shank on the rod adjacent the handle end, a sleeve member slidably mounted on the shank, a pair of spaced arm members each having two ends one of which being pivotally secured to the sleeve member, a cap member pivotally secured to the other ends of the spaced arm members, a plug on the cap member adapted removably to seat in the axial plug recess of the rod, and spring means to hold the cap member plug in the axial plug recess of the rod, said hair clamp having a radially and peripherally disposed hair clamp tooth opening in the free end thereof and said rod having a tooth thereon removably to seat in said hair clamp tooth opening, said rod having a cylindrical center portion and said hair clamp being disposed on the rod adjacent the center portion of the rod and transversely curved to fit thereagainst, said cap member and said rod having connecting axial fluid passages and said rod having slotted exit openings at the center thereof adjacent the hair clamp and connected with the fluid passage in the rod for neutralizers and other fluids to be injected to hair rolled on the rod.

5. A cold wave winder comprising a rod on which hair can be wound, said rod having a handle end and another end with an axial plug recess therein, a hair clamp having one end pivotally secured to the rod between said ends thereof, a shank on the rod adjacent the handle end, a sleeve member slidably mounted on the shank, a pair of spaced arm members each having two ends one of which being pivotally secured to the sleeve member, a cap member pivotally secured to the other ends of the spaced arm members, a plug on the cap member adapted removably to seat in the axial plug recess of the rod, and spring means to hold the cap member plug in the axial plug recess of the rod, said hair clamp having a radially and peripherally disposed hair clamp tooth opening in the free end thereof and said rod having a tooth thereon removably to seat in said hair clamp tooth opening, said rod having a cylindrical center portion and said hair clamp being disposed on the rod adjacent the center portion of the rod and transversely curved to fit thereagainst, a handle mounted on the handle end of the rod, said means being resilient means, said shank being of reduced diameter with an abutment at one end thereof, said resilient means being a coil spring mounted on and around the shank, said spring having one end bearing against said abutment and another end bearing against said sleeve member, said cap member and said rod having connecting axial fluid passages and said rod having slotted exit openings at the center thereof adjacent the hair clamp and connected with the fluid passage in the rod for neutralizers and other fluids to be injected to hair rolled on the rod.

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