Feb. 12, 1957 G. RÖSCH 2,781,045

METHOD AND APPARATUS FOR WAVING HAIR

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FIG. I.

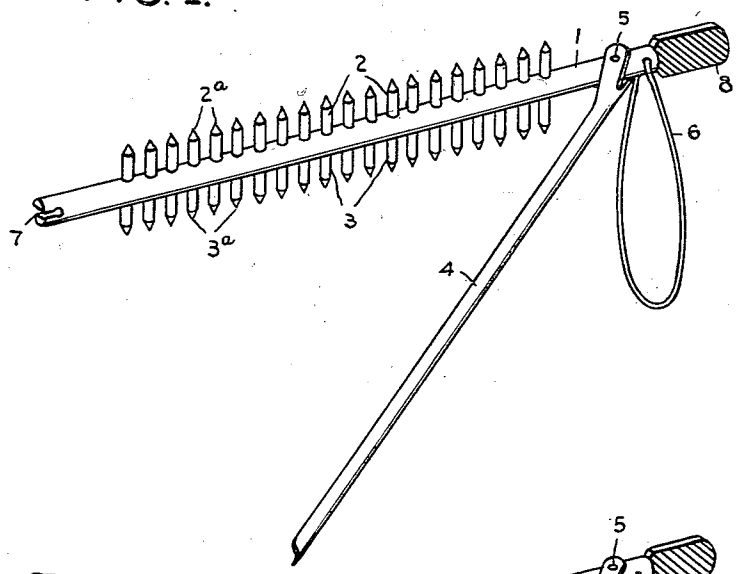
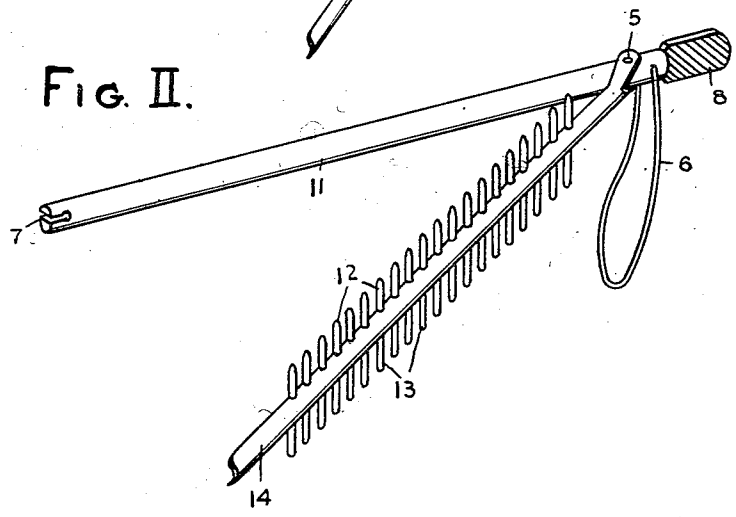


FIG. II.



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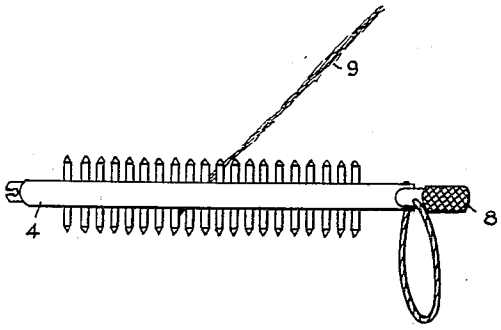
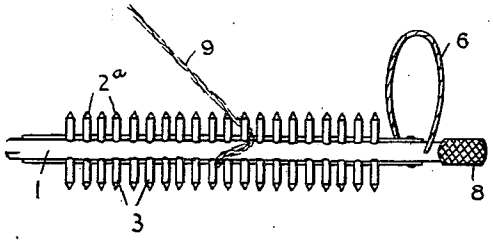


FIG. III.

FIG. IV.



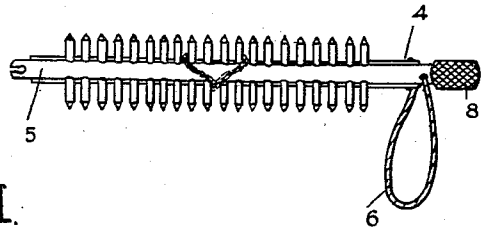


FIG. V.

FIG. VII.

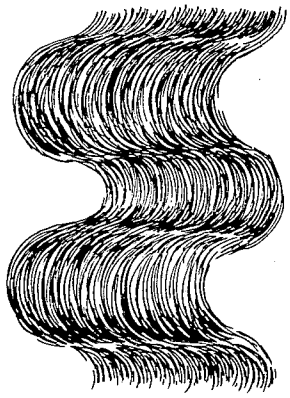
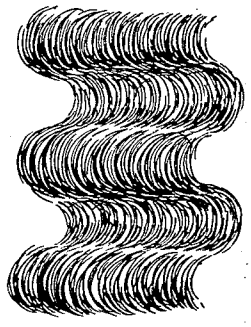


FIG. VI.



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METHOD AND APPARATUS FOR WAVING HAIR

Gustav Rösch, Valparaiso, Chile

Application March 30, 1954, Serial No. 419,800

8 Claims. (Cl. 132—7)

My invention consists of an apparatus for and method of treating human hair for obtaining permanent waves and curls which has substantial advantages over existing apparatus for waving or curling hair and those methods which are being used at present.

The apparatus which I have invented for permanently waving the hair comprises a cylindrical rod-like body member provided with two diametrically opposite rows of teeth or spines disposed in comb-like fashion, between which the hair is wound around the body, the free end of the hair being held by a clamping bar member of arcuate cross section, one end of which is pivotally attached to the corresponding end of the body while its other end is initially held against the body by pressure exerted between the index finger and thumb to clamp the free end of a lock of hair and, after the first half turn of the body and clamping bar, is held in clamping position by the hair itself. Alternatively, one or more of the two rows of spines may be made integral with or positioned on the clamping bar instead of the body. With this apparatus it is possible to make waves and curls at the same time.

The invention is described hereinbelow with reference to the accompanying drawings, in which:

Fig. I is a perspective view of one embodiment of my new wave shaper and curler, hereinafter referred to as "apparatus";

Fig. II is a perspective view of another form of construction thereof;

Figs. III, IV and V illustrate on a reduced scale the successive steps in winding the hair, and Figs. VI and VII show different waves resulting from using apparatus of different sizes, or by displacing the hair a different number of spines to each side.

Like reference numbers denote like parts throughout the several views.

In the embodiment of the invention shown in Figs. I, III, IV and V it will be seen that the cylindrical body member 1 is provided with two diametrically opposite rows of cylindrical spines 2, 3, having conical free ends 2*a* and 3*a*, the spines being spaced a uniform distance apart in order to facilitate the introduction of the hair therebetween. One end of body member 1 is provided with a flattened milled holder 8 and near holder 8 a clamping member 4 of arcuate cross-section having a forked end is pivoted to body member 1 by a pin 5, the curvature of the clamping member being U-shaped on the side facing the cylindrical body member and substantially equal to that of the rod so that the free end of the hair 9 may be effectually clamped to the side of the spines 2, 3, by the clamping member 4 which is held tightly between the fingers of the hair-dresser until the hair is wound a half turn, after which the clamping member 4 is held down by the hair itself.

In the embodiment shown in Fig. II of the drawings, two rows of spines 12, 13, are fixed to the longitudinal edges of a clamping member 14 instead of to the body member 11, this body member having a smooth free

cylindrical surface, and the remaining parts of the device being the same as in the embodiment illustrated in Fig. I.

In making use of my new wave-shaper and curler, after the hair has been impregnated with a liquid of the type which is used in cold permanent waving, the free end thereof is clamped by the member 4 to the body member 1, and wound around the body and clamp member between the spines by rotating the apparatus until the lock of hair is fully wound thereon. In order to form the wave, the apparatus is shifted axially to one side as it is being turned, thus inclining the hair with respect thereto at an angle of approximately 45°, as may be seen in Fig. III of the drawings. If the first wave is desired with an inclination towards the right, the apparatus is shifted to the left; if the wave is desired with an inclination towards the left, vice-versa. It will be understood that the greater the diameter of the body round which the hair is being wound, the larger is the wave obtained. The entire apparatus with the free end of the hair clamped to it is given one complete turn, after which it is moved in the opposite direction giving the hair a contrary inclination of approximately 45° with respect to the body member, as may be seen in Fig. IV. The operation is repeated by displacing the apparatus alternately to the right or left after each complete turn thereof until the hair has been wound up completely in the form of a hollow cylinder consisting of overlapping spiral convolutions or segments crossing each other in opposite directions. In Figs. III, IV and V of the drawings is shown schematically the successive positions acquired by the hair relative to the body member during one complete turn thereof. This procedure results in a true wave rather than the modified curl secured by present methods.

The lock of hair is maintained rolled up by the rubber band 6 which is stretched to engage a notch 7 at the end of body member 1. The entire apparatus is kept in this position for approximately one hour, depending on the thickness of the hair, after which a fixing liquid is applied. The hair is left impregnated with this liquid for approximately a quarter of an hour and then taken down. The hair may then be washed, for example with a shampoo, and will remain permanently waved.

Curls are obtained by winding the hair on the body and clamp member without any relative lateral displacement thereof; consequently, the hair is not given any inclination with respect to the apparatus. It is also possible to obtain curls and waves in one lock of hair, by first winding the hair with no relative lateral displacement of the apparatus and then, beginning at the point at which the wave is required, displacing the apparatus to left or right in accordance with the inclination desired and the already described method for waving the hair is applied.

The length and depth of hair waves obtained with the apparatus of the present invention depends on the diameter of the body and clamp member, three sizes of which are generally sufficient for a complete waving and curling operation.

These results are attained by providing the apparatus with spines which are sufficiently long and widely spaced to permit insertion of the hair therebetween so as to fix the direction of the waves while the apparatus is rotated as above described, until the whole length of hair is subjected to the required wave-shaping and curling treatment. These results cannot be obtained with any permanent wave shapers heretofore known. With the use of the apparatus of the present invention, permanent waves may be obtained which require no further treatment after drying to retain their shape, and which will not undergo alterations on being afterward wet.

It is not possible to obtain by previously known methods a wave of the type which corresponds to the natural

wave and which is illustrated in Figs. VI and VII. Nor is it possible to obtain by means of other previously known methods a combination of curls and waves, my invention being the first enabling these results to be successfully accomplished.

What I claim is:

1. A hair wave shaper and curler comprising a generally cylindrical member, a clamping member of generally arcuate cross-section pivoted at one end to one end of said cylindrical member for movement in a plane including the longitudinal axes of both said members, said clamping member being U-shaped on the side facing the cylindrical member so as to fit closely against it and form therewith a circumferentially rounded support for hair wound thereon, a row of parallel spines projecting from one of said members and spaced at equal intervals lengthwise thereof, the length and spacing of said spines being sufficient to permit the whole length of a substantial lock of hair to be wound up therebetween, and means for retaining said hair in wound up position on said support.

2. A device as claimed in claim 1 in which said spines are positioned on the body member.

3. A device as claimed in claim 1 in which said spines are positioned on the clamping member.

4. The method of permanently waving hair which comprises the steps of impregnating each lock of hair to be waved with cold waving fluid, winding said lock into the shape of a hollow cylinder composed of a plurality of overlapping helical segments of hair, each segment running in an opposite direction from that of the previous segment with respect to the longitudinal axis of the cylinder, retaining said hair in its overlapping helical form while it dries at least partially and then releasing the hair.

5. A method as claimed in claim 4 in which the hair is impregnated with a fixing fluid before it has been released and then washed after a suitable interval.

6. A method as claimed in claim 5 in which the hair is retained in overlapping helical form for approximately an hour, and in which the interval between its impregnation with fixing fluid and its being washed is approximately 15 minutes.

7. A method for the permanent waving of hair on a generally cylindrical member having at least two diametrically opposite longitudinal rows of spines, which method comprises the steps of impregnating each lock of hair to be waved with a cold-waving liquid; clamping the tree end of a lock of hair to said cylindrical member, winding each lock about said cylindrical member between the spines thereof by holding the lock taut with the cylindrical member at right angles thereto and shifting the cylindrical member and its associated spines axially in one direction and giving said cylindrical member a complete turn to lay a helical segment of hair thereon, then shifting said cylindrical member axially in the opposite direction and giving it another complete turn to lay a helical segment of hair thereon overlapping said first helical segment in the opposite angular direction, and repeating these operations until the hair is completely wound up; and retaining the said lock of hair on the cylindrical member while it dries at least partially.

8. A method for the permanent waving and curling of hair as set forth in claim 7 which comprises an intermediate winding step consisting of winding the said lock of hair about said cylindrical member and clamping bar while holding the lock taut and at right angles to the cylindrical member, thus obtaining curls instead of waves, whereby a combination of curls and waves is obtained.

References Cited in the file of this patent

UNITED STATES PATENTS

861,596	Machado	July 30, 1907
1,932,519	Harris	Oct. 31, 1933
1,974,924	Macdonal	Sept. 25, 1934