

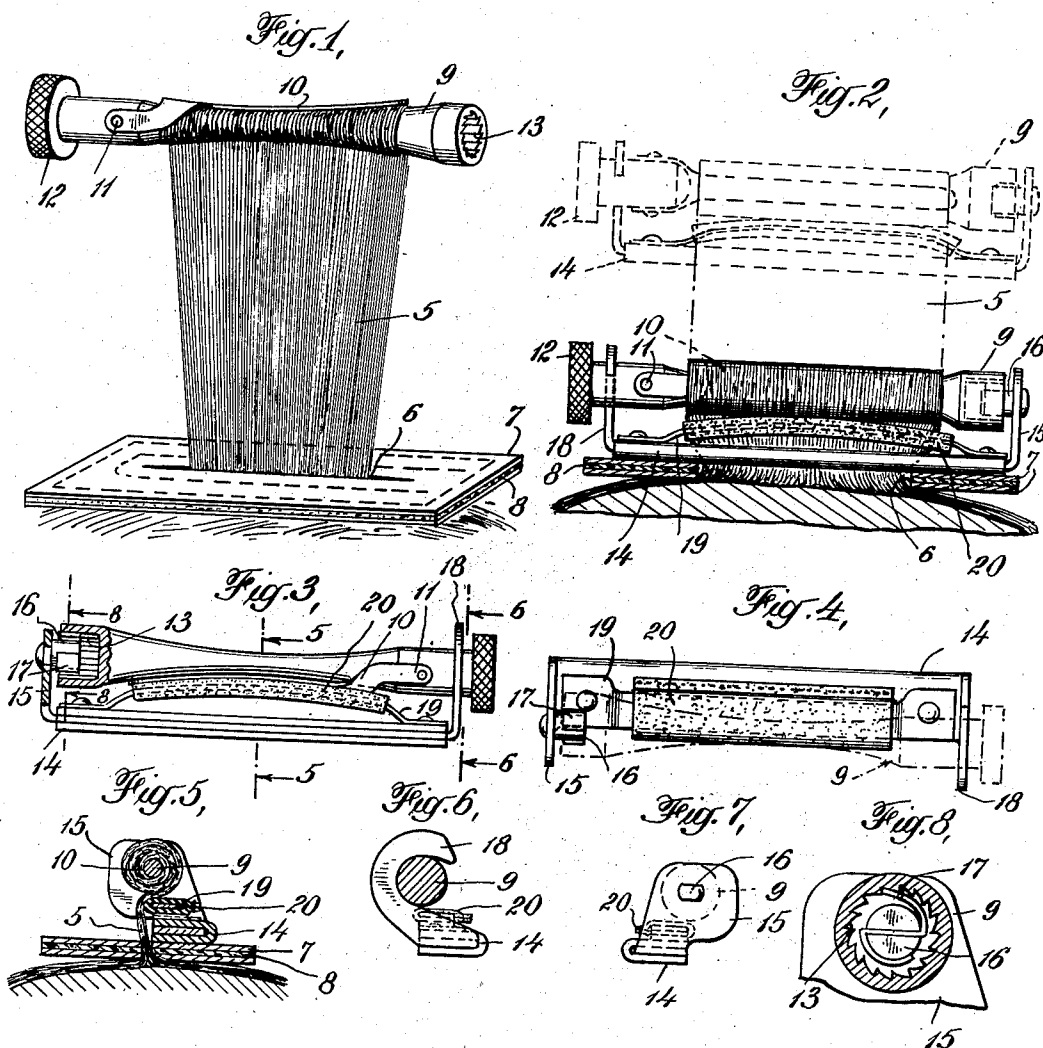
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METHOD AND APPARATUS FOR WAVING-HAIR

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METHOD AND APPARATUS FOR WAVING
HAIR

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This invention relates to so-called "permanent waving" of hair on the human head, and particularly to improvements in the method of and apparatus for waving hair in the "Croquignole" fashion.

In the practice of Croquignole waving, it has been customary heretofore to secure each strand of hair adjacent the scalp by means of a clamp adapted to firmly grip the hair and thereafter to wind the hair from the ends on a roller, subjecting it to tension from the point where it is gripped by the clamp. The tension is maintained after the hair is wound and while it is moistened with a suitable lotion, wrapped and subjected to heat to fix the wave. It has been necessary to clamp the hair firmly so as to avoid pulling the hair at the roots and causing discomfort to the subject.

The known method as described and the devices available therefor have been unsatisfactory in respect to the application of substantially uniform tension to the hair which has not been possible heretofore. The operator has been able only to guess at the tension to which the hair is subjected, and over-winding has frequently resulted in protecting or weakening the hair. Also, because of difference in tension in adjacent strands, the waves have not been uniform and satisfactory.

It is the object of the present invention to provide a simple and effective method of and apparatus for waving hair in which the disadvantages of previous practices are avoided.

Another object of the invention is the provision of a method of and apparatus for waving hair in which the hair is tensioned from the free ends, that is to say, tension is applied as the hair is wound and at a substantially uniform rate instead of after the winding is completed as in the practice heretofore followed.

Another object of the invention is the provision of devices permitting the application of uniform tension from the free ends of the hair automatically as the hair is wound, the tension being governed by resilient means and being therefore independent of the operator's judgment.

Other objects and advantages of the invention are the provision of simple and effective apparatus to facilitate the winding of and maintenance of tension in the hair and the prevention of accidental injury to the scalp.

The invention will be better understood by ref-

erence to the following specification and the accompanying drawing, in which—

Fig. 1 is a view in perspective illustrating the first step in the operation of winding the hair;

Fig. 2 is a sectional view illustrating two positions of the winding means with respect to the scalp;

Fig. 3 is an elevation partially in section illustrating the preferred form of apparatus for practicing the invention;

Fig. 4 is a plan view of the structure shown in Fig. 3;

Fig. 5 is a section on the line 5—5 of Fig. 3;

Fig. 6 is a section on the line 6—6 of Fig. 3;

Fig. 7 is an end view of the structure shown in Fig. 3; and

Fig. 8 is a section on the line 8—8 of Fig. 3.

In carrying out the invention, the hair on the scalp is first divided into a plurality of strands 5, each of which is separately treated in the manner hereinafter described. The strand 5 is drawn through a slit 6 in a protector 7 usually consisting of a plurality of layers of some suitable fabric such as flannel which may have an intermediate insulating layer 8 of cork, asbestos or other suitable material, the object of which is to prevent transmission of heat to the scalp.

The end of the strand is secured to a roller 9 by means of a clip 10 pivoted at 11. A few turns are rolled from the ends of the hair so as to ensure that the hair is firmly secured. The roller 9 is provided with a knurled head 12 at one end and with internal ratchet teeth 13 at the other.

The next step as indicated in Fig. 2 (in dotted lines) is to engage the roller with a support 14 comprising a base having a bracket 15 at one end which carries a stud 16 and a resilient pawl 17 which is adapted to engage the internal ratchet teeth 13 on the roller 9. A bracket 18 at the other end of the support 14 is hook-shaped as indicated in Fig. 6, and is adapted to engage the roller 9 adjacent the knurled head 12. Mounted on the base 14 is a resilient member 19 having a covering 20 preferably of rubber, although any suitable material adapted to afford a degree of friction may be employed. The friction surface of the covering 20 bears against the surface of the roller 9 when the latter is mounted on the support as shown, for example, in Fig. 2.

With the parts in the position as indicated in Fig. 2 in the dotted line position, the strand of hair is firmly pressed against the roller 9 by the friction surface of the covering 20. The knurled head 12 is then rotated to wind the strand upon

the roller, and tension is automatically applied to the hair from the free ends as it passes the friction surface 20, somewhat in the manner of the action of a wringer. Meanwhile, no tension is maintained between the scalp and the point where the strand of hair engages the roller 9. As the knurled head 12 is rotated, the base 14 carrying the roller moves downwardly until it reaches the full-line position indicated in Fig. 2, where it rests upon the protector 7. The roller is prevented from rotating in the reverse direction by engagement of the pawl 17 with the ratchet teeth. In the final position of the support resting on the protector 7, the strand of hair is wound tightly on the roller 9 and is under tension from its free ends, the tension being regulated by the pressure of the friction surface 20 against the hair, but no tension is applied to the strand of hair in the direction of the scalp, and the hair is not subjected, therefore, to any pull, either during the winding or when the winding has been completed.

With the completion of the winding of the several strands of hair on the scalp, the wound strands can be moistened with a suitable lotion, wrapped in the usual manner with the usual moistureproof wrapper which may, for example, consist of a strip of flannel with a protecting cover of moisture proof paper. Heat may be applied to the wound strands by means of the usual heating devices commonly employed in Croquignole waving. These ordinarily consist of arcuate members containing electric heating elements with suitable insulating handles and resilient means to hold the arcuate members in contact with the wrapped strands of hair. The heating devices, being well known in the art and forming no part of the present invention, are not illustrated in the accompanying drawing.

It will be understood that in accordance with the usual practice, when the heating is completed the heaters and wrappers are removed, and the strands of hair are separated from the rollers, after which the hair may be washed and otherwise treated to complete the wave.

The invention as described affords a marked improvement in the method and apparatus for waving hair, particularly with reference to simplicity of structure and operation, the ease of application, and the avoidance of tension in the hair adjacent the scalp. The subject can be treated successfully to produce the desired waves without pulling the hair at the scalp and without discomfort. Auxiliary protecting devices can be employed, if necessary, to prevent access of steam to the scalp during the heating operation.

Various changes may be made in the procedure and in the devices employed in connection therewith without departing from the invention or sacrificing any of the advantages thereof.

I claim:

1. The method of waving hair on the human scalp which comprises separating a lock of hair,

winding the hair from the free ends spirally onto a winding element, subjecting the hair as it is wound thereon to substantially uniform tension while leaving the portion of the hair between the wound portion and the scalp unrestrained, moistening and wrapping the hair, and applying heat to the wound hair for a period sufficient to fix the wave therein.

2. The method of waving hair on the human scalp which comprises separating a lock of hair, winding the hair from the free ends spirally, continuously clamping the hair as it is wound, subjecting the hair as it is wound to substantially uniform tension while leaving the portion of the hair between the wound portion and the scalp unrestrained, moistening and wrapping the hair, and applying heat to the wound hair for a period sufficient to fix the wave therein.

3. The method of waving hair on the human scalp which comprises separating a lock of hair, winding the hair from the free ends spirally, resiliently and continuously clamping the hair as it is wound, subjecting the hair as it is wound to substantially uniform tension while leaving the portion of the hair between the wound portion and the scalp unrestrained, moistening and wrapping the hair, and applying heat to the wound hair for a period sufficient to fix the wave therein.

4. In an apparatus for waving hair on the human scalp, a support, a roller adapted to be mounted thereon, ratchet means permitting rotation of the roller on the support only in one direction, and means on the support adapted to engage a lock of hair as it is wound on the roller to continuously clamp the successive layers of wound hair.

5. In an apparatus for waving hair on the human scalp, a support, a roller adapted to be mounted thereon, ratchet means permitting rotation of the roller on the support only in one direction and resiliently biased means on the support adapted to engage a lock of hair as it is wound on the roller to continuously clamp the successive layers of wound hair.

6. In an apparatus for waving hair on the human scalp, a support, a roller adapted to be mounted thereon, ratchet means permitting rotation of the roller on the support only in one direction, and means on the support having a friction surface adapted to engage a lock of hair as it is wound on the roller to continuously clamp the successive layers of wound hair.

7. In an apparatus for waving hair on the human scalp, a support, a roller adapted to be mounted thereon, ratchet means permitting rotation of the roller on the support only in one direction, and resiliently biased means on the support having a friction surface adapted to engage a lock of hair as it is wound on the roller to continuously clamp the successive layers of wound hair.

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