

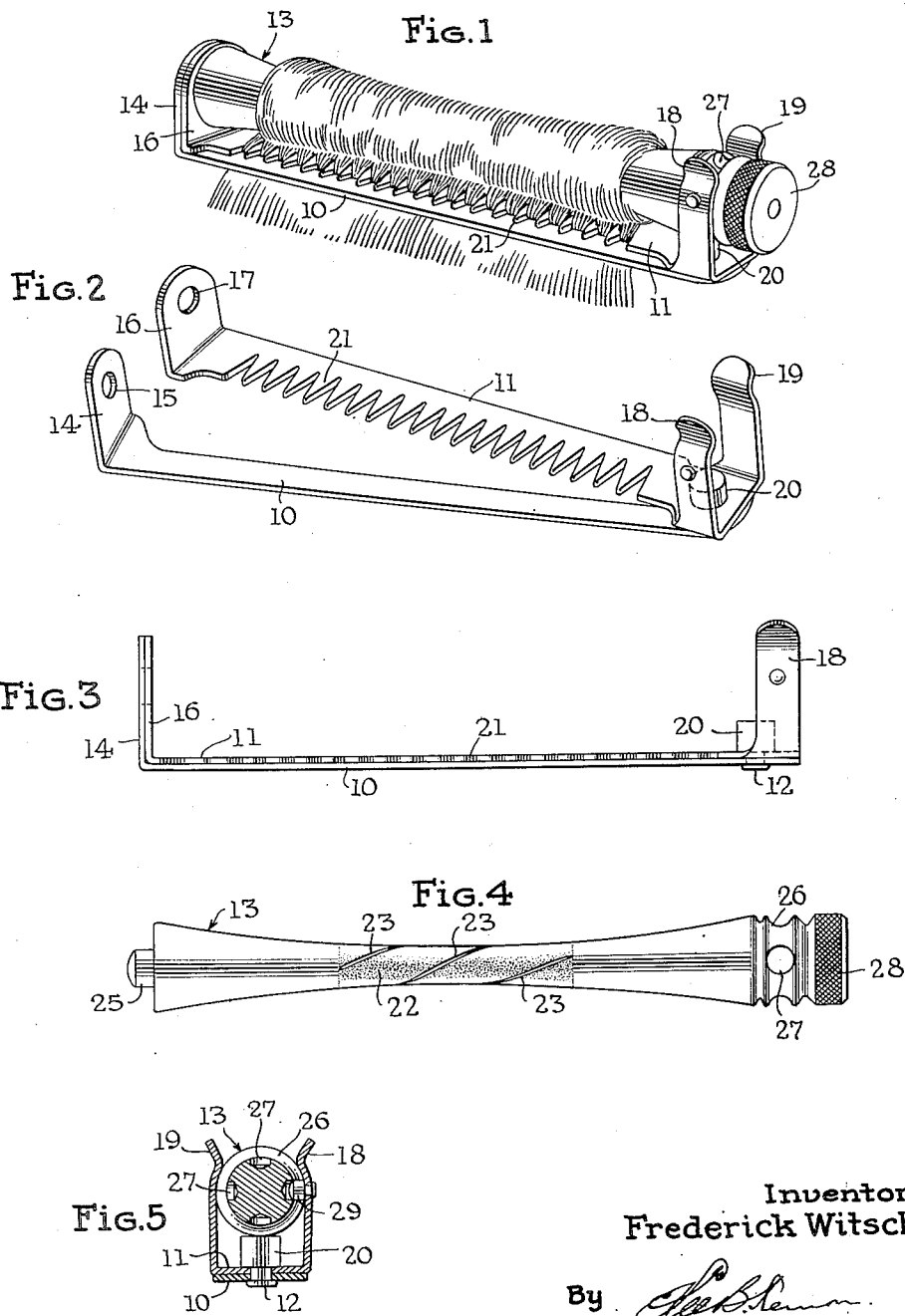
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APPARATUS FOR WAVING HAIR

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APPARATUS FOR WAVING HAIR

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4 Claims. (Cl. 132—33)

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This invention relates to improved apparatus for the waving of human hair and more particularly to apparatus which is intended to impart what is known as a permanent wave to the hair by a cold wave process.

There are in general use many devices for imparting a Croquignole curl or wave to the hair. In using such devices, the hair is divided into locks and a curler device is applied to the outer end of each lock of hair. The hair in each lock is then wound on the curler reel or spindle, the spindle is clamped, and the wound hair is then treated with chemicals and/or heat.

It is an object of this invention to provide a Croquignole curl forming device for use particularly with cold wave forming preparations.

It is another object of this invention to provide a hair waving device having a clamp to hold a lock of hair while the lock is being wound on a curling spindle.

It is a further object of this invention to provide a hair waving device including a clamp and a separable curler spindle both formed of moldable plastic material.

It is a still further object of this invention to provide a simple and economical Croquignole curl forming device which is effective and readily handled and adjusted by an inexperienced operator.

Other objects and advantages of this invention will appear from the following detailed description of the preferred embodiment of the device illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of the assembled device having a lock of hair clamped and wound therein.

Figure 2 is a perspective view of the clamping device alone in its open position.

Figure 3 is an elevational view of the clamping device.

Figure 4 is an elevational view of the curler spindle.

Figure 5 is a vertical sectional view of the spindle positioned in the clamping device showing the spindle ratchet construction.

Referring to the drawings, the complete device includes a clamp having arms 10 and 11 pivotally connected together by pin 12, and a spindle or reel 13 separable from the clamp. The arm 10 has an upwardly extending end 14 provided with an aperture 15. The arm 11 also has an upwardly extending end 16 provided with an aperture 17, and the opposite end is provided with upwardly extending ears 18 and

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19. As shown in Figure 5, the pivot pin 12 may be in the form of a rivet having an enlarged head 20. Arm 11 is provided with comb-like teeth 21 so that when arm 11 is aligned with arm 10 and apertures 15 and 17 are aligned there are a series of spaces between the teeth and arm 10 to receive and clamp strands of a lock of hair to be curled.

The curling spindle or reel 13 is flared outwardly toward each end providing a mandrel of minimum diameter in the central portion of its length. The central portion may be roughened as indicated by the numeral 22 and may also be provided with spiral grooves 23. The roughened area and grooves serve to better grip the strands of hair to be wound on the spindle 13. One end of the spindle 13 has a projecting stud 25 adapted to be received in the aligned apertures 15 and 17. The other end portion of the spindle 13 includes a circumferential groove 26 having a series of spaced recesses 27 therein, and includes a knob or grip 28 at the end of the spindle. The shoulders forming the groove 26 are adapted to be received between and to be engaged by the ears 18 and 19. The ears 18 and 19 should be resilient so as to permit easy removal of the spindle from the clamp and to hold the spindle to the clamp when desired. The ear 18 is provided with a ball-like member or nub 29 secured thereto for engagement with the recesses 27 in the groove 26. The member 29 serves to resiliently hold the spindle 13 against turning with respect to the clamp after a strand of hair has been wound on the central portion of the spindle. The spindle 13 and the clamp 10—11 are preferably formed from molded plastic material. However, they may be manufactured from stainless or plated metal.

The method of using the curling device will now be explained. A lock of hair to be curled with a Croquignole-type curl is separated from the rest of the hair by combing. The clamp 10—11 is applied thereto adjacent the scalp if the entire length of the lock is to be curled, or the clamp may be applied to an intermediate portion of the length of the lock if only the outer end of the lock is to be curled. The spindle 13 free from the clamp arms 10 and 11 is applied to the end of the lock of hair and turned with the fingers by the knob or knurled grip 28 to wind up the strands of hair about the central portion of the spindle. The roughened area 22 and grooves 23 serve to grip the hair and assist the winding of the hair on the spindle as the latter is turned. When most of the

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length of hair to be curled is wound on spindle 13, the stud 25 of the spindle is inserted in the apertures 15 and 17 to lock the clamp arms 10 and 11 together, and the groove portion 26 of the spindle is inserted between the resilient ears 18 and 19. The spindle 13 is then turned by the knob 28 to wind up on the spindle any slack in the hair to be curled. With the lock of hair thus clamped and held in curled position by the device described, a cold waving lotion or preparation is applied to the hair on the spindle 13 and allowed to dry or set. After the preparation has set the curl in the hair, the knob 28 is turned to loosen the grip of the spindle on the hair, the spindle is removed from the ears 18 and 19 and removed endwise from the Croquignole curl, and the clamp 10-11 is removed from the lock of hair. Any desired number of locks of hair may have curler devices applied thereto at one time and all may be treated with cold waving lotion as a group, if desired.

It will be apparent that the device described may be used to curls of various types depending on how the lock of hair is wound on the spindle 13. The end portions of a flat lock may be wound over each other for forming a Croquignole wave, and the remaining length of the lock between the partially-wound spindle and the clamp may be bunched and wound spirally along the spindle over the previously wound end lengths to provide for a spiral wave in a portion of the lock. The described construction is simple and easy to use in actual practice. Various modifications in the apparatus will occur to those skilled in the art and are intended to come within the scope of the invention if within the meaning of the appended claims.

I claim:

1. In a hair waving curler comprising a hair clamping member and a spindle member mountable on said clamping member, said clamping member including a pair of arms and pivot means connecting one end of one arm to one end of said other arm, the free end of each of said arms having an upwardly extending portion provided with an aperture, the end of one of said arms adjacent said pivotal connection having upwardly extending resilient portions, said spindle member having a projecting stud on one end thereof for insertion into said apertures, the other end of said spindle member having a portion for insertion between said upwardly extending resilient portions of said one of said arms.

2. In a hair waving curler comprising a hair

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clamping member and a spindle member mountable on said clamping member, said clamping member including a pair of arms and pivot means connecting one end of one arm to one end of said other arm, the longitudinal edge of one of said arms being notched to receive portions of a lock of hair to be curled, the free end of each of said arms having an upwardly extending portion provided with an aperture, said apertures being in substantial alinement when said arms are closed to clamp a lock of hair between said notched arm and said second arm, said spindle member having an axially projecting stud on one end thereof for insertion through said alined apertures to lock said clamping arms one adjacent the other.

3. In a hair waving curler comprising a hair clamping member and a spindle member mountable on said clamping member, said clamping member including a pair of arms and pivot means connecting one end of one arm to one end of said other arm, the free end of each of said arms having an upwardly extending portion provided with an aperture, a pair of upwardly extending resilient ears carried by said arms adjacent said pivot means, said spindle member having an axially projecting stud on one end for insertion into said apertures and having adjacent its other end a circumferential groove for insertion between said resilient ears, said groove having spaced recesses therein for engagement with a portion of said ears when said spindle member is mounted in said hair clamping member.

4. In a hair waving curler comprising a hair clamping member and a spindle member mountable on said clamping member, said clamping member including a pair of arms and a pin member pivotally connecting one end of one arm to one end of said other arm, the free end of each of said arms having a projecting portion provided with an aperture, a pair of upwardly extending resilient ears carried by one of said arms adjacent said pivot pin, said spindle member having an axially projecting stud on one end for insertion through said apertures and having adjacent its other end a circumferential groove, a nub member carried by one of said ears for engagement with said groove of said spindle member, said groove having a plurality of spaced recesses therein successively engageable by said nub member as said spindle is rotated.

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No references cited.