June 27, 1939. C. SEIDEL 2,163,894

HAIR CURLER

Filed March 14, 1938

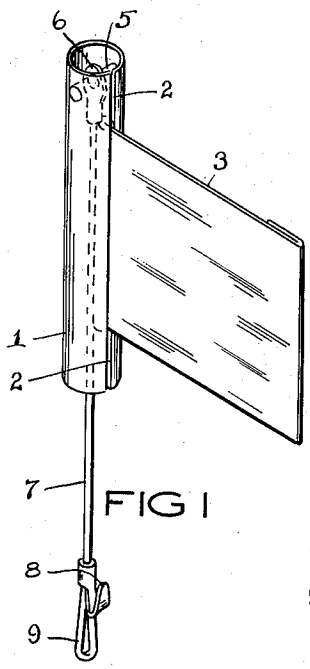


FIG 1

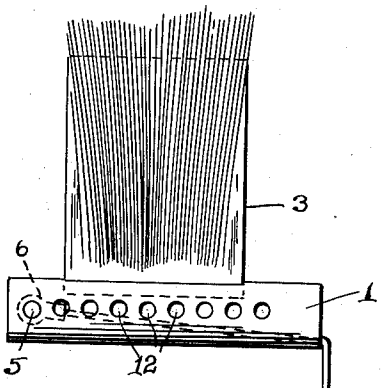


FIG 3

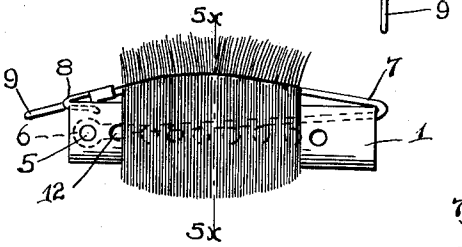


FIG 4

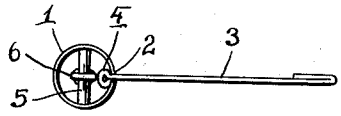


FIG 2

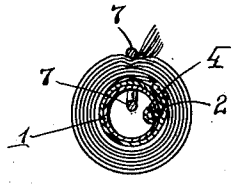


FIG 5

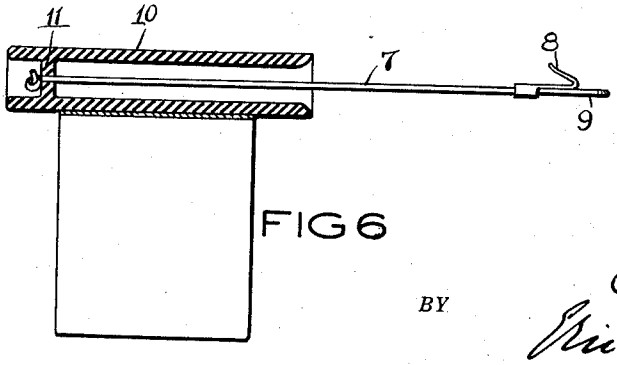


FIG 6

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HAIR CURLER

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4 Claims. (Cl. 132—40)

This invention relates to hair curlers and has for its object to provide a novel hair curling device by means of which hair may be curled to produce the effect of Croquignole marcelling or produce paper curls, large natural puffs or small ringlets or pin curls.

Another object of this invention is to provide a novel and simple hair curling device for self curling with which the hair may be curled without producing a kink in the ends thereof.

A further object of this invention is to provide a curling device for self curling with improved holding means for holding the hair in place on the curling device.

A still further object of this invention is to provide a novel hair curling device for self curling with a flexible mandrel so that the curlers may be worn without inconvenience to the head on retiring.

All these and other objects and attendant advantages will become more readily apparent from the detailed description of the invention which follows, reference being had to the accompanying drawing in which

Figure 1 is a detail perspective view of my novel hair curling device.

Figure 2 is an end view thereof.

Figure 3 is a side elevation of the curler ready with a strand of hair positioned on its winding pad ready to be curled up on the mandrel of the curler.

Figure 4 is a side elevation of the curler with a strand of hair wound up and held in place thereon.

Figure 5 is a cross section of the curler taken on the line 5*x*—5*x* of Figure 4.

Figure 6 is a longitudinal sectional view of a modified form of the curler provided with a flexible mandrel.

In the several figures of the drawing like reference numerals indicate like parts.

The hair curler forming the subject matter of my invention is adapted for use in both the home and hair dresser establishments. For home use it is suitable because it is simple to use, may have a flexible mandrel so that it can be left on the head without inconvenience to the wearer after retiring and can form a curl without kinking the ends of the hair in the opposite direction to the curl. For hair dressing establishments my novel hair curler is adapted to produce curling as in Croquignole marcelling, produce paper curls, large natural puffs or small ringlets or pin curls.

This universal use of my hair curler is made possible by the use of either a rigid or flexible mandrel in combination with a winding pad with which the ends of the hair are wound up on the mandrel in the direction of the curl. Self curlers are being used at the present time but all such devices are equipped with fastening means for fastening the beginning of the strand of hair to be curled to the mandrel causing a kink to be formed in the ends of the hair in such a manner that the kinked ends extend in the opposite direction to the curl.

In the form of the curler illustrated in Figures 1 to 5 the mandrel comprises a metal tube 1 preferably made of aluminum. This tube is longitudinally slitted at 2 for the insertion of one end of the winding pad 3 to place the molded edge 4 thereof on the inside of the mandrel to thus anchor the pad to the mandrel.

Located near one end of the mandrel is the cross pin 5. Slidably fastened to this pin is the metal anchoring member 6 of the elastic 7. This elastic passes thru the mandrel and extends from the opposite end with a locking hook 8 fastened thereto and a handle extension 9 formed thereon. The elastic is thus free to move in the mandrel and adjust itself automatically within the mandrel to have the outer portion extend perfectly straight and longitudinally to the mandrel when stretched over the outside thereof and the hair wound up thereon as will hereinafter be described.

In the application of the curler the winding pad 3 is held extended from the mandrel 1 with the ends of the strand of hair to be curled placed flatly on it as illustrated in Figure 3. The mandrel is then rotated toward the ends of the hair to simultaneously wind up the pad and the hair ends on the mandrel and cause the hair ends to be held clamped between the pad and the mandrel. With the ends of the hair thus held fastened to the mandrel by the winding pad the continued rotation of the mandrel in the same direction will gradually wind up the entire strand of hair to be curled and locate the mandrel close to the inner ends of the hair at the scalp of the head. With the hair completely wound up in this manner the elastic 7 is drawn over the outside of the mandrel and the hair wound up thereon in order to have the hook 8 engage over the opposite end of the mandrel and hold the elastic drawn over the hair and keep it from unwinding from the mandrel.

Because of the fact that the elastic is drawn over the wound up strand of hair in a straight line, it embeds itself therein in this way as illus-

trated in Figures 4 and 5 forming a cross wave in the strand of hair close to the scalp to enhance the curl made by the curling device.

After the strand of hair is curled up it is left to set on the curling device or if necessary or desired is given a special treatment for setting.

For home use the mandrel 10 is made of rubber or other flexible material as illustrated in Figure 6. In this form of curling device the elastic is held centrally anchored in the partition 11 near one end of the mandrel in order to permit the locking hook 8 to engage over the edge of the mandrel without interference therefrom.

In providing a flexible mandrel the hair may be curled up and left thereon over night without inconvenience to the person wearing it in order to give the hair maximum time for setting.

Holes 12 may be provided in the wall of the hollow mandrel in order to secure increased ventilation thru the strand of hair wound up thereon. Such holes are illustrated in Figures 3 and 4.

I claim:

1. A hair curler comprising a longitudinally slitted tubular mandrel, a flexible winding pad extending from the slit in said mandrel, an enlargement on the inner edge of said pad on the inside of said mandrel to keep said pad from pulling out of said slit, an elastic anchored within said mandrel near one end thereof and extending thru and out of the other end thereof, and an attaching member on the free end of said elastic.

2. A hair curler comprising a longitudinally slitted tubular mandrel, a flexible winding pad extending from the slit in said mandrel and held fastened therein, a cross pin diametrically extending thru said mandrel near one end thereof, anchoring means slidably mounted on said cross pin, an elastic fastened to said anchoring means and extending thru said mandrel and from the end thereof to provide for a minimum stretching in a longitudinal extension over the outside of the mandrel and the fastening of the free end thereto.

3. A hair curler comprising a tubular mandrel, a flexible winding pad extending from the perimeter of said mandrel for the location and support of the ends of a strand of hair relative to said mandrel and the holding of the ends of the strand of hair to the mandrel on the winding of the pad and the strand of hair onto the mandrel in one direction, including an elastic suspended within said mandrel so as to project from one end thereof to provide for its tensioning over the outside of the mandrel from the inside thereof substantially parallel to the axis of the mandrel and locking means on the end of said elastic for engagement with said mandrel so as to hold said elastic tensioned over the winding pad and hair strand wound up on said mandrel.

4. A hair curler comprising a longitudinally slitted tubular mandrel, a flexible winding pad extending from the slit in said mandrel, an enlargement on the inner edge of said pad on the inside of said mandrel to keep said pad from pulling out of said slit, an elastic anchored within said mandrel and extending out at one end thereof, and an attaching member on the free end of said elastic.

CLARA SEIDEL.