May 29, 1956 W. G. POLYKRANAS 2,747,584

HAIR CURLERS

Filed Aug. 4, 1954

Fig. 1.

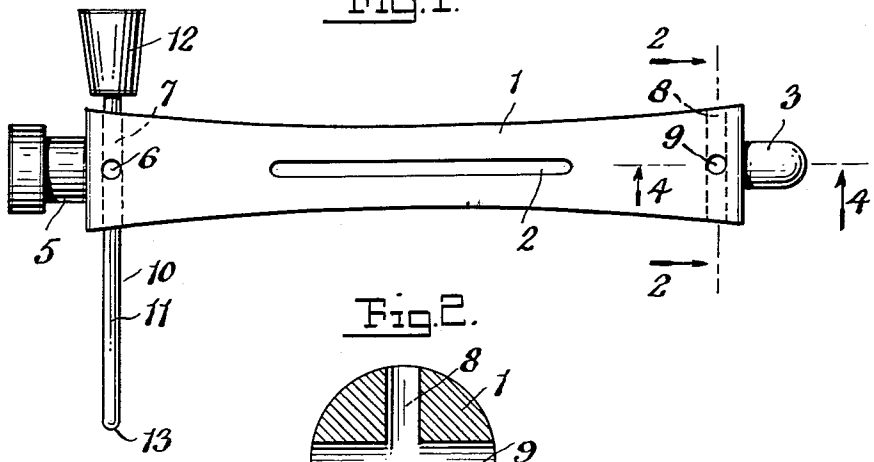


Fig. 2.

Fig. 3.

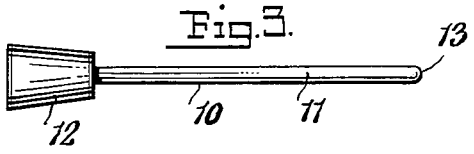


Fig. 4.

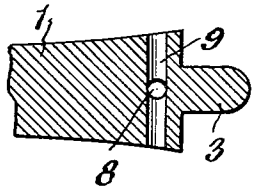
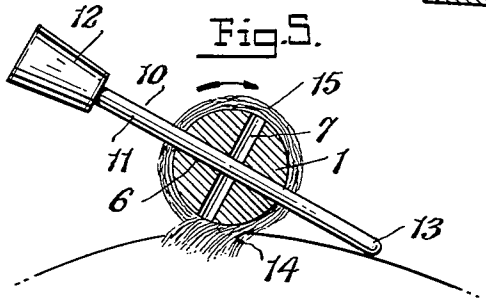


Fig. 5.



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HAIR CURLERS

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1 Claim. (Cl. 132—33)

This invention relates to hair curling devices, and has for its primary object the provision of a device of this character which can be conveniently and easily used and which will insure most satisfactory results without the likelihood of damage to the hair.

At the present time, most hair curlers of the type employed in beauty parlors for the production of so-called permanent waving, consist of a spindle or mandrel upon which the strand of hair is wound, the curled or rolled strand thus wound being held in place on the spindle by means of a rubber band stretched from one end of the spindle to its other end overlying the curled-up hair tress. While this type of hair curler is used in very substantial numbers, it has numerous disadvantages. The rubber bands used as a part of these devices, stretch, break, and because of constant contact with hair-treating preparations, often become sticky or tacky. They thereupon tend to pick up dust, dirt and germs, and since they are often repeatedly used without being washed or cleansed, the possibility of carrying contagion from one person to another is often strongly present.

Very often, when applying the band on the curler, the band is stretched so tightly as to cause discomfort. At other times, the band may be stretched somewhat loosely so that it does not hold the curled strand properly, the strand or at least parts thereof, tending to unroll with the result that certain of the convolutions of the curl are not of proper compactness, and irregularity of hair wave ensues. Other types of hair curlers in use involve the employment of spring elements which clamp the curl against the spindle. These elements are subject to most of the objections above pointed out and to the additional objection that they often tend to cut into and break the hair filaments.

With a knowledge of the foregoing objections found in hair curlers of the types widely in use, it is an object of the present invention to provide a hair curler in which all clamping strain or pressure on the formed curl will be obviated. It is an object of the invention to provide a curler which will retain the strand or hair tress in place without applying a clamping element against the hair, and which will retain the curl in its position for setting solely by restraining the tendency of the spindle on which the curl is wound, to rotate.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claim appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a side elevational view of a hair curler embodying the present invention;

Fig. 2 is an enlarged sectional view, taken substantially on the line 2—2 of Fig. 1, looking in the direction of the arrows;

Fig. 3 is a side elevational view of the pin;

Fig. 4 is a sectional view, taken substantially on the line 4—4 of Fig. 1, looking in the direction of the arrows, and

Fig. 5 is a transverse sectional view through the curler showing the same in use and retaining a curl in place.

Referring to the drawing, 1 indicates the body of the spindle or mandrel. The same is preferably composed of plastic material, but can also be made of metal, wood or other suitable materials. The spindle assumes the tapered cylinder shape shown, and is provided at one end with a short stem 3 and provided at the other end with a knob or finger-piece 5. The spindle is held by finger grip on the knob 5 and on the stem 3 and rotated in the known manner to wind the tress or strand upon it. A slot 2 may be provided in the body of the spindle to permit the hair-treating liquid to reach and contact the strand of hair wound on the spindle.

Adjacent to each end of the spindle 1 is formed a plurality of transversely, or radially-extending, holes 6, 7, adapted for the selective reception of a pin generally indicated at 10. Said pin consists of a stem or shank portion 11 formed with a smooth, rounded end 13 and provided at its other end with an enlarged finger-piece or knob 12 which, in the form shown, is of frustro-conical shape for easy handling of the pin. The entire pin, including the finger-piece 12 may be made integral and can be composed of plastic, metal or other suitable material. The diameter of the stem or shank portion 11 of the pin is such that this part of the pin can be easily inserted through any one of the holes 6, 7 in the body of the spindle 1.

From the foregoing, the manner in which the curler operates will be readily understood. The strand or tress of hair to be curled and indicated at 14 in Fig. 5 is wound upon the spindle 1 in the known manner, namely by rotating the spindle toward the head, thus winding the strand around the spindle as indicated at 15 in Fig. 5. When the curl-bearing spindle 1 is brought close to the scalp, the pin 10 is then inserted through one of the holes 6 or 7 to thereby cause the pin to extend transversely through the spindle and to bring its rounded extremity 13 into contact with the surface of the head. The pin, partly inserted in position, is shown in Fig. 5, and the abutment of the end of the finger-piece 12 against the spindle will limit the extent of insertion of the pin through the spindle.

When the pin has been thrust through the spindle in the manner described, it will constitute a lateral extension of the spindle 1 and hence it will prevent rotation of the spindle in the direction of the arrow shown in Fig. 5, in which direction the spindle must rotate in order to permit of unwinding or uncurling of the curl or tress 15 then upon it. Thus, as long as the pin 10 is inserted through the spindle, the spindle cannot rotate and therefore the curl will remain in place upon it during the hair-setting operation. To free the curl merely requires removal of the pin, whereupon the spindle will be free to rotate, permitting its easy separation from the curl that was formed upon it.

By the use of the described structure, the curls may be very rapidly formed and thus the hair treatment greatly facilitated; the use of the device does not require any clamping elements or other parts overlying the hair and likely to injure it or break off the hair filaments, and finally, the curls may be maintained under the correct tension, with no tendency of the curler to fall away from the scalp at the conclusion of the curl formation to loosen the curl or parts thereof as so often occurs with the conventional type of hair curler.

In the drawing I have disclosed two holes 6, 7 at each end of the spindle. It will be understood that this number may be materially increased if desired, to thereby enable the operators to select the most properly-positioned

hole for the placement of the pin when the spindle reaches the scalp after the curl has been formed on it.

I have also illustrated the spindle as having the elements 3 and 5 thereon. While these elements may be conveniently used as finger-pieces to facilitate the rolling up of the hair strand on the spindle, and are generally used on spindles employing a rubber band for the retention of the curl, they are not essential to the present device and can, if desired, be omitted therefrom.

Having described a single embodiment of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claim.

What I claim is:

A hair curler having an elongated spindle upon which a curl is wound and the spindle positioned with its longitudinal axis extending substantially parallel to the surface of the scalp, the spindle having an opening adjacent to one end, a pin thrust through said opening and having ends extending laterally from the spindle, one of the ends contacting the scalp and preventing rotation of the spindle, the other end constituting a finger piece, the pin being detachable from the spindle to permit separation of the spindle from the formed curl.

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