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R. KLEIN

2,374,291

HAIR CURLING APPARATUS

Filed Jan. 8, 1942

Fig. 1

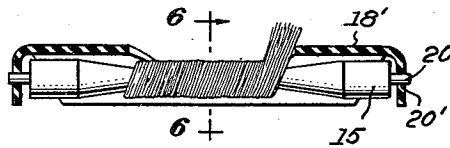


Fig. 2

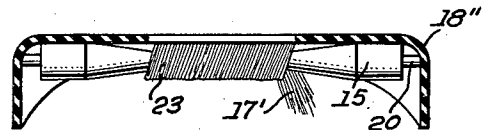


Fig. 3

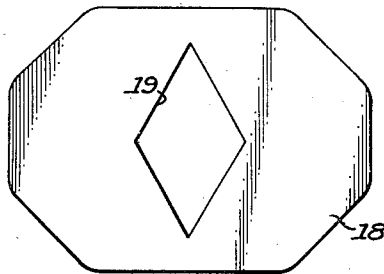


Fig. 4

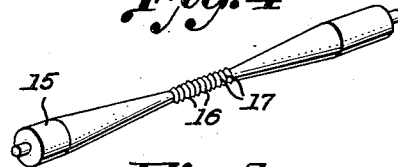


Fig. 5

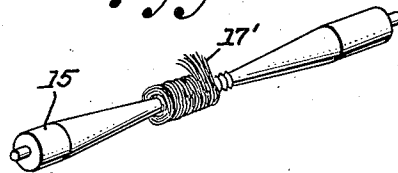


Fig. 7

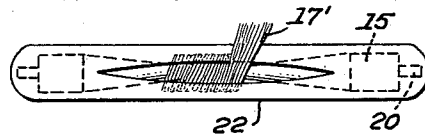


Fig. 6

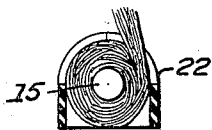


Fig. 8

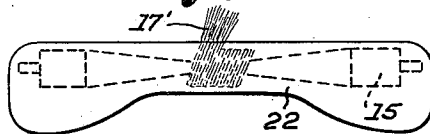


Fig. 9



Fig. 10

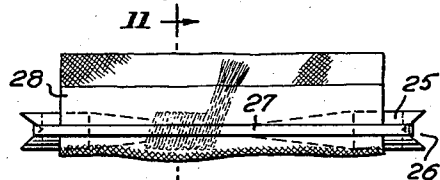
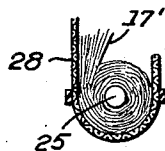


Fig. 11



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2,374,291

HAIR CURLING APPARATUS

Richard Klein, Detroit, Mich.

Application January 8, 1942, Serial No. 425,998

1 Claim. (Cl. 132—33)

My invention relates to a new and useful improvement in a hair curling apparatus.

An object of the invention is the provision of an apparatus whereby the hair wound on a prong may be easily and quickly encased in an open trough-shaped member.

Another object of the invention is the provision of a hair curling apparatus embodying an elongated prong on which the hair is to be wound and provided with circumferential grooves for reception of the initial coil of the hair.

Another object of the invention is the provision of an apparatus embodying a winding rod or prong, together with an elastic slit-bearing member whereby the hair, after being wound on the prong, may be easily and quickly secured into position and the loose ends of the hair pressed inwardly against the coil.

Other objects will appear hereinafter.

It is recognized that various modifications and changes may be made in the method of operation and the apparatus herein disclosed without departing from the spirit of the invention and it is intended that such variations and modifications shall be embraced within the scope of the claim appended hereto and form a part hereof.

Forming a part of this specification is a drawing, in which:

Fig. 1 is a longitudinal central sectional view of the enveloping member showing the rod in elevation.

Fig. 2 is a longitudinal central sectional view of a modified form of enveloping member and showing the rod in side elevation.

Fig. 3 is a plan view of the enveloping member.

Fig. 4 is a perspective view of the curling rod.

Fig. 5 is a perspective view of the curling rod showing a strand of hair being wound thereon.

Fig. 6 is a sectional view taken on line 6—6 of Fig. 1.

Fig. 7 is a top plan view of the invention showing it in use.

Fig. 8 is a side elevational view of the invention showing it in use.

Fig. 9 is a side view illustrating a slightly modified form of the invention.

Fig. 10 is a side elevational view of a further modified form of the invention.

Fig. 11 is a sectional view taken on line 11—11 of Fig. 10.

As shown in the drawing, I use a rod or prong 15 which is tapered toward its center so that the ends of the rod are of larger cross section than the center. At the center I provide a plurality of spaced apart circumferential ribs 16, to pro-

vide circumferential channels 17. The strand 17' of hair which is wound upon the rod 15 is engaged in the initial operation of winding by the ribs 16 so that the hair and particularly the loose ends are engaged in the channel 17 and a centralizing of the coil of hair on the rod is thus effected.

As an enveloping member I provide an elastic body 18, preferably formed of rubber, and provided with an opening 19 formed therein. In use, the enveloping member 18 is snapped over the ends of the curling rod 15 and as shown in Fig. 1 the curling rod may be provided with trunnions 20. In the form illustrated in Fig. 1, the enveloping member 18' is provided with openings 20' for reception of the trunnions. In the form shown in Fig. 2, the enveloping member 18'' is not provided with the openings and the trunnions bear against the body of the material.

The enveloping member 18 may be slipped over the strand of hair as shown in Fig. 1 and the hair then wound upon the rod 15, in which case the enveloping member will lie toward the scalp. On the other hand, the enveloping member may be placed on the prong 15 after the strand of hair has been wound thereon as shown in Fig. 2. When the member 18 is stretched to the proper length for fitting over the prong, the opening 19 will have been stretched to a slit-like formation, as clearly appears in Fig. 7. When stretched into this position it will assume a trough-like shape, as clearly appears in the drawing. The side walls 22 of this trough-like shape will lie close against the coil 23 of hair which is wound on the prong so that any loose ends of hair are thus held in close contact with the coil proper. It will be noted that the enveloping member, when stretched to assume the trough-like form, will be open at one end so that the air will have access to the interior of the trough and an easy escape of vapors from the liquid or liquids saturating the coil 23 becomes possible.

In the use of the apparatus, the hair is first wound upon the rod and it is then subjected to a saturation with an alkaline solution and a saturation with an acid solution. I prefer that the alkaline saturation precede but, if desired, the hair may first be saturated with the acid solution and then followed with a saturation of the alkaline solution.

It is then permitted to dry either by a natural evaporation or by a hastened evaporation through the use of a blower. After it has dried, the hair, while still rolled on the prong, is then subjected to a saturation with an acid solution. If the

hair, when rolled on the prong or rod, is first saturated with an acid solution, the wetting of the saturation after the drying of the hair would, of course, be with an alkaline solution. The operation therefore consists in curling the hair on the rod, saturating the same either with an acid or alkaline solution, allowing it to dry naturally without restraining or retarding the escape of the vapors, and then neutralizing the hair by the subsequent saturation and then washing it thoroughly to remove the neutralizer. It will be noted that the drying in no manner interferes with the escape of vapors and that no enclosure encloses the curl while heat is applied. Experience has shown that with the common methods of permanent curling, it is almost impossible to curl the loose ends. It is believed that it will appear obvious that the apparatus used is of simple construction and economical.

In Fig. 10 I have illustrated a modified type of curling rod 25 having notches 26 formed in its ends for reception of an elastic band 27 which serves to retain in position a strip of fabric 28 which is stretched over the coil to provide the

side walls engaging the loose ends and to provide the open trough structure.

In Fig. 9 the curling rod 29 is similar to that illustrated in Fig. 1 and a fabric layer 30 is placed in position and held by an endless elastic band 31. With this apparatus and method a very simple and effective curling of the hair becomes possible.

What I claim as new is:

In an apparatus of the class described, a curling prong on which a wisp of hair is curled; an elongated flat plate-like body of elastic material having an opening formed in the middle thereof, of greater length transversely than longitudinally of said body whereby, upon longitudinally stretching said body and bending the elongated ends over said curling prong for impingement thereon said body will be doubled upon itself to provide an open trough-shaped structure entirely enclosing said prong and the hair wound thereon and having the side walls bearing against the curl on the prong.

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