Sept. 22, 1959 L. PFALZGRAF 2,905,186

HAIR-CURLING DEVICE

Filed March 20, 1958

Fig. 1.



Fig. 2.

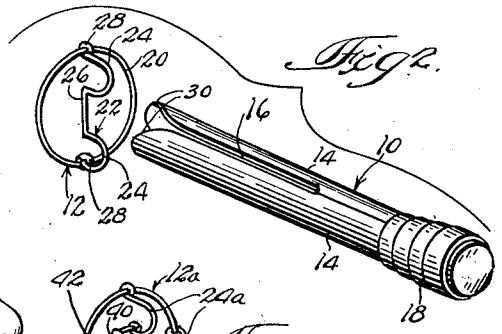


Fig. 9.



Fig. 8.

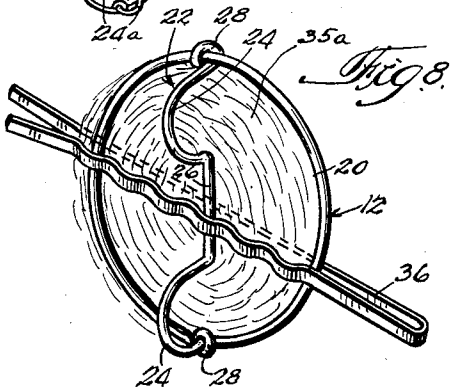


Fig. 3.

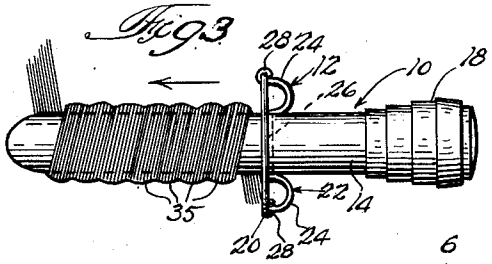


Fig. 5.

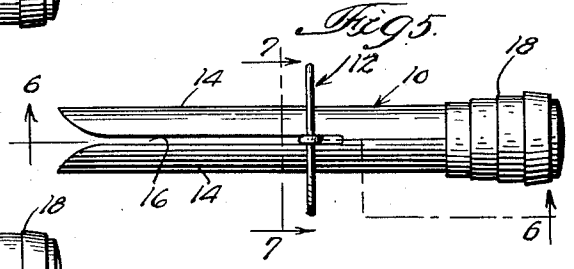


Fig. 4.

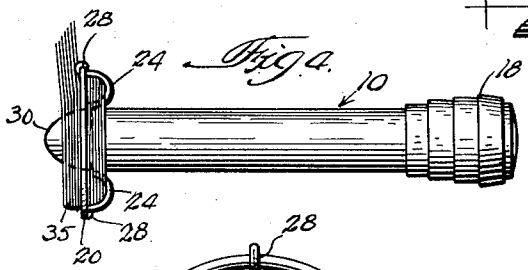


Fig. 6.

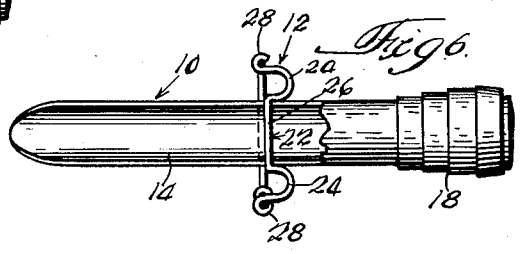
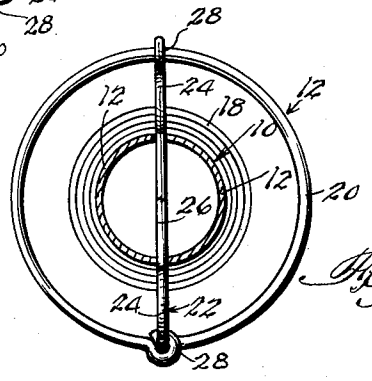


Fig. 7.



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HAIR-CURLING DEVICE

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1 Claim. (Cl. 132—33)

The present invention relates to a novel hair-curling device, and more particularly pertains to a simple curl form which may be readily used by an unassisted individual in the home.

The modern trend has found an ever increasing number of women using home permanent kits employing a waving solution and a hair-curling means. Thus, women are now able to administer permanents in the confines of their homes in a rapid manner.

One of the requisites for obtaining a desirable home permanent which is on a par with those obtained in a beauty salon is a means for readily forming curls on the head of the woman and retaining them in place while the permanent wave solution is applied thereto. The latter solution chemically affects the hair, enabling the formed curl to retain its desired configuration once the curl form has been removed.

It is an object of this invention, therefore, to provide novel hair-curling apparatus which may be utilized in the home by individuals in the course of forming curls of desired configuration to which a permanent wave solution may be applied.

It is a further object of this invention to provide a curl form which is of extremely simple and inexpensive construction.

It is another object of this invention to provide a curl form which insures the formation of uniform curls whenever such apparatus is utilized, thereby enhancing the over-all beauty of the permanent application.

The above and other objects of this invention will become more apparent from the following description when read in the light of the accompanying drawing and appended claim.

The hair-curling apparatus provided by this invention comprises a usual type of longitudinally slotted tubular curler member which is adapted to engage a strand of hair and entwine the same about the periphery thereof so as to form a circlet of hair, or curl. The diameter of the curl formed is obviously dependent upon the diameter of the curler member.

In accordance with this invention, a curl form which is adapted to retain the circlet of hair formed by the curler member against the head of the woman utilizing the same in a precise annular configuration is provided. The latter curl form comprises a ring of rigid material, such as metal or plastic, which defines approximately the largest diameter of the curl to be formed. Diametrically disposed across the latter ring of the curl form is at least one curl-retaining member disposed at opposed end limits on two diametrically opposed points in the ring. The end portions of the retaining member are preferably of U-shaped configuration and substantially define the thickness of the curl to be formed. The two U-shaped portions of the curl-retaining member of the curl form are maintained in spaced relationship by means of a straight intermediate portion which is substantially coplanar with the surrounding ring portion. This latter straight portion is adapted to be slidably inserted in the

longitudinal slot of the previously described curler member prior to the initial curl-forming operation. The bight portions of the two U-shaped portions of the wire member of the curler form are disposed away from the head of the person using the same in the course of assembling the two hair-curling components.

In the normal course of curl-forming operation, a strand of hair is engaged in the curler slot and a series of hair convolutions is formed. A person utilizing the provided apparatus, after forming the hair convolutions, then pushes the same toward the surface of the head, gathering the hair in the U-shaped portions of the curl form in the process of removing the hair from the curler member. The straight portion of the curl form defines the open area disposed in the center of each curl or ringlet. The curl form is pressed against the surface of the head and a bobby pin is slidably engaged with the straight portion of the hair form as it traverses the diameter of the hair ringlet formed which is secured in place by the hair form.

For a more complete understanding of this invention, reference should now be had to the drawings, wherein

Figure 1 illustrates the head of a woman utilizing the curl form of this invention;

Fig. 2 is a perspective view of an ordinary curler member and a curl form provided by this invention prior to assembly;

Fig. 3 is a side elevational view of the curler and curl form of Fig. 2, shown preliminary to forming a curl from a twisted strand of hair;

Fig. 4 is a side elevational view of the elements illustrated in Fig. 3 with the entwined hair of the latter figure formed into the configuration of a ringlet;

Fig. 5 is a side elevational view of a hair curler and hair form assembly provided by this invention preliminary to engaging a strand of hair;

Fig. 6 is a side elevational view partly in section taken on line 6—6 of Fig. 5;

Fig. 7 is a sectional view taken on line 7—7 of Fig. 5 and illustrated on a scale enlarged thereover;

Fig. 8 is a perspective view illustrated on an enlarged scale of a ringlet of hair secured in place by the hair form of this invention together with a bobby pin which secures the hair in place to the hair form; and

Fig. 9 is a perspective view of a modified curl form.

Referring now more particularly to Fig. 2, a common type of curler member 10 is illustrated together with a curl form 12 which comprises the major contribution of this invention. The curler 10 comprises two twin elongated tubular body portions 14 which define a longitudinal slot at 16. The two portions 14 are maintained together at one end limit by means of the handle portion 18 which may be formed of rubber or plastic or other suitable material.

The curl form 12 provided by this invention is of simple construction and comprises a ring 20 which has diametrically disposed thereacross at least one curl-retaining portion 22 having two opposed end portions 24 having substantially U-shaped configurations disposed normal to the plane of the ring and maintained in spaced relationship by means of a straight intermediate portion 26. The end limit of each U-shaped portion 24, not engaging portion 26, is formed integrally with or secured to the ring portion 20 at 28. Since the ring and retaining portions of the form are integral, being formed from a single piece of wire as illustrated, rigidity of structure is assured.

Figs. 5 and 6 illustrate the manner in which the curler 10 and curl form 12 are assembled prior to the curl-forming operation. It will be noted from Figs. 5 and 6 that the central curl-retaining portion 26 of the curl form has a length which is substantially equal to the diameter

formed by the assembled tubular portions **14** of the curler **10**. This latter size relationship is most apparent in Fig. 6. Prior to the curl formation, the curl form slidably engages the curler until the straight intermediate portion **26** of the curl-retaining portion **22** abuts against the end limit of the slot **16** disposed in the curler **10**. Referring to Fig. 6, it will be noted that in this latter disposition the U-shaped portions **24** of the curl-retaining portion **22** of the curl form are disposed away from the open end of the curler slot **16** and in a plane transverse to the cross section of the curler **10** (see Fig. 7).

After this latter relationship between the curler and curl form has been assumed, a strand of hair which is adapted to be formed into a curl is engaged by the curler **10** in the slot **16** and twisted so as to form a plurality of convolutions on the curler periphery in the manner illustrated in Fig. 3.

Following this latter twisting operation, the curl form **12** is slid along the curler slot **16** while end portions **30** of the curler **10** are disposed substantially normal to the surface of the head. In the course of the latter sliding movement of the curl form **12**, the convolutions of the hair **35** are forced to move in front of the curl form against the surface of the head and, in the course of so moving, the hair is bunched into the two U-shaped portions **24** of the curl form. Following the movement of the curl form to the end of the curler, the convolutions of the hair **35** should be engaged by the curl form **12** in the manner illustrated in Fig. 4.

The curler **10** is then disengaged from its slidable connection with the curl form **12**, and the curl of hair and the curl form are placed against the surface of the head of the woman utilizing the illustrated apparatus. With the ringlet of hair confined within the curl form and having its inner annulus defined by the portion **26** of the curl form, a bobby pin **36** may engage diametrically opposed portions of the formed curl and secure the same to the curl form in the manner illustrated in Fig. 8. This latter engagement between the bobby pin, hair ringlet and curl form **12** is facilitated if the portion **26** of the curl form is disposed in the plane of the curl form ring portion **20** as illustrated. The ringlets of hair **35***a* will then appear on the surface of the head of the woman utilizing the same in the manner illustrated in Fig. 1.

Consequently, by using the provided curl form **12**, a substantially perfectly circularly-shaped ringlet of predetermined size is formed. The ringlets require a minimum of time to form, and there is no possibility of their annular shape being lost, since the form **12** constantly maintains the ringlet in place on the surface of the head.

The provided, above-described apparatus may be utilized in the course of giving home permanents or when the setting of hair alone is desired. It is apparent that, after the ringlets have remained in place for the required amount of time, the provided curl form may be readily removed from the head of the user by removing the bobby pin **36** and lifting the curl form from the head.

It is also believed apparent that the provided apparatus is of extremely simple design, may be readily manufactured and is inexpensive. The curl form **12** may be of an inexpensive metal or plastic. However, when utilized with permanent solutions, care should be taken that the material of composition is unaffected by the latter solutions. The provided curler **10** is given by way of illustration only, and it is believed apparent that the curl form of this invention may be utilized in conjunction with any equivalent curler member.

In a modified form of curl form **12***a* illustrated in Fig. 9 a plurality of U-shaped curl-retaining portions **24***a* are employed in conjunction with a center ring member **40** having a straight diametric member **42** for purposes of coacting with a curler slot. The added portions **24***a* enable greater control of the formed curl to be effected in the normal course of use. The portions **24***a* should not be so great in number so as to prevent securing of the same to the head of a woman by means of a bobby pin.

In view of the modifications which may be made, this invention should be limited only by the scope of the appended claim.

I claim:

In an apparatus for curling hair, the combination comprising a tubular, longitudinally slotted curler member adapted to engage a strand of hair and form a curl therefrom, a curl form comprising ring means having a diametrically disposed means secured thereto at opposed end limits of said diametrically disposed means, said diametrically disposed means having enlarged terminal portions, the end limits of which engage said ring means, said enlarged terminal portions defining U-shaped portions disposed normal to the plane of said ring means, the portion of said diametrically disposed means interposed between said enlarged end limits being substantially equal to the diameter of said slotted curler member and lying substantially in the plane of said ring means; said curl form diametrically disposed means engaging said curler member slot in the normal position of assembly.

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