

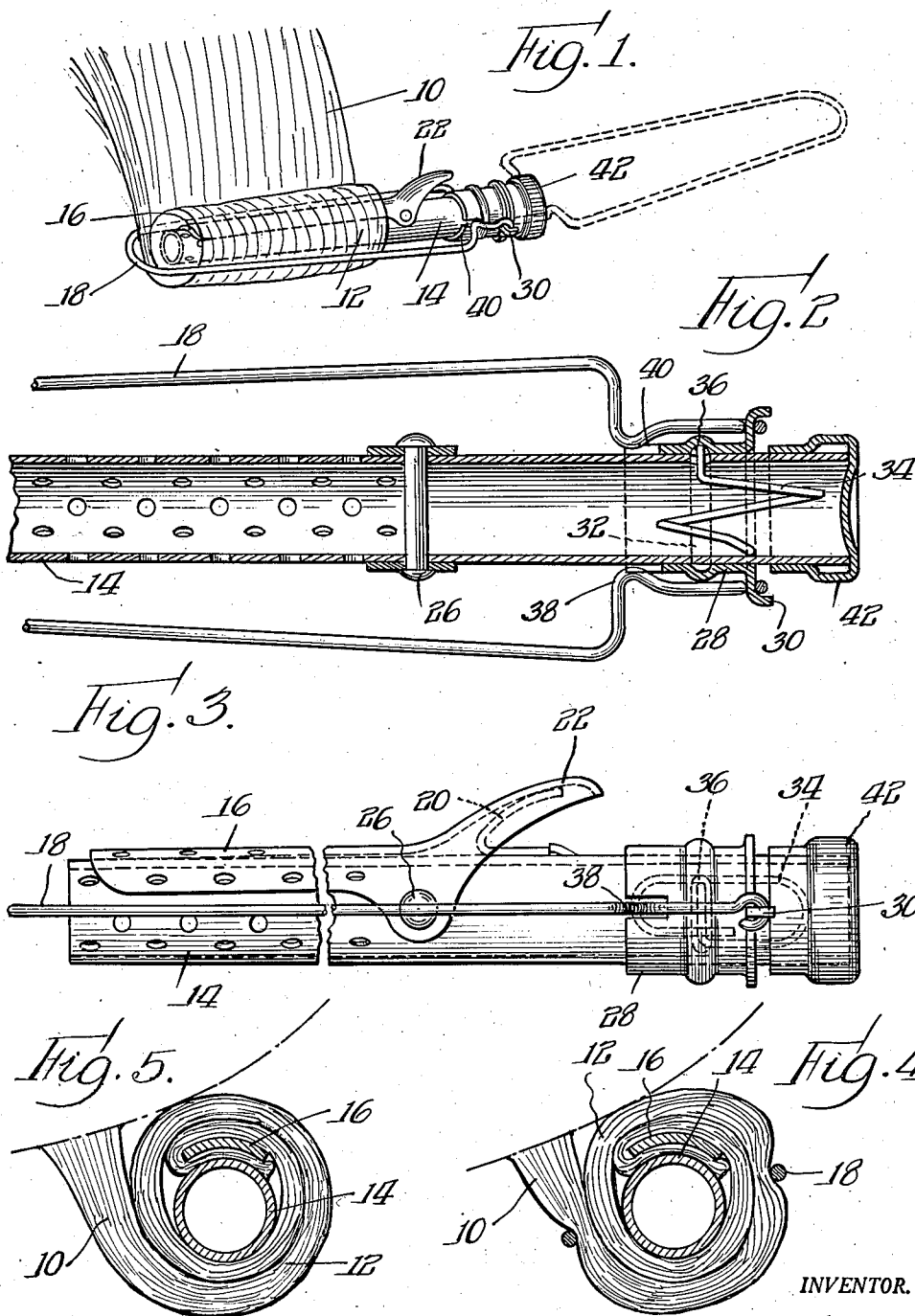
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HAIR CURLER

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HAIR CURLER

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The present invention relates to hair curlers and more particularly to an improved hair curler which will hold the curl from unwinding at any desired position on the strand of hair.

Heretofore hair curlers of a type comprising a bar on which a curl may be wound have been provided with a suitable gripping member and a pivoted loop-shaped locking member for restraining uncurling of the strand of hair wound on the bar. Such type of hair curler usually uses a hollow bar which may be perforated and which has a spring biased gripping or clamping member for engaging the end of a strand of hair to be wound upon the bar in the form of a curl. A loop-shaped locking member which is pivotally connected to the bar restrains the curling motion but does not permit the curl to be wound tightly against the head of a person since in winding it is not possible to judge with great accuracy how many turns of the bar are required to form a curl. Obviously a fixed locking or restraining member therefor may be a fraction of a turn removed from a most desirable restraining position. Other types of hair curlers have been provided with a hair pin like member inserted in the hollow bar, but such device is particularly disadvantageous when the hollow bar is of the perforated type since it is difficult to insert the hair pin like locking member into the bar since the perforated interior of the bar does not readily permit the placement of the wire member in the most desired restraining position.

In accordance with the present invention the above mentioned disadvantages are overcome by providing a hair curler of the type having a bar and a clamping or gripping member with a restraining member which is resiliently retained in the desired position so as to have adequate inherent rotation resisting action relative to the bar.

It, therefore, is an object of the present invention to provide an improved hair curler with a restraining or locking member which obviates certain disadvantages of the devices of the prior art.

Other and further objects of the present invention subsequently will become apparent by reference to the following description taken in connection with the accompanying drawing wherein:

Figure 1 is a perspective view of a hair curler embodying the present invention as applied to a strand of hair wound in the form of a curl on the curler;

Figure 2 is an enlarged cross sectional view of

a portion of the curler shown in Figure 1, said section being taken longitudinally of the curler;

Figure 3 is a side view with an intermediate portion thereof broken away so as to illustrate the structure at opposite ends of the hair curler;

Figure 4 is a cross sectional view through the hair curler at right angles to the longitudinal axis thereof at a time when a strand of hair has been formed on the curler and tightened against the user's scalp, the locking member serving at this time to restrain the uncurling action of the curler; and

Figure 5 is a cross sectional view of the curler similar to Figure 4, showing the locking member released from the curl so as to enable convenient longitudinal withdrawal of the curler.

Referring to the drawing there is shown in Figure 1 a strand of hair 10 wound in the form of a curl 12 upon a hair curler having a bar 14 and a cooperating clamping or gripping member 16. A loop-shaped locking member 18 is positioned so as to restrain the uncurling action of the curl 12.

The details of the arrangement generally shown in Figure 1 will become apparent from Figures 2 and 3 from which it will be seen that preferably the bar 14 is of the hollow perforated type, in which case the gripping member 16 may also be perforated. The gripping member 16 may be spring biased by a suitable spring 20 interposed between a finger operating portion 22 of the gripping member 16 and the body of the bar 14. One end of the spring member 20 may be retained in position by engagement with an up-structure portion 24 of the bar 14 or some other similar restraining arrangement which of course will be apparent to those skilled in the art. The gripping member 16 is pivotally secured to the body 12 by a suitable rivet member 26. The end of the bar 14 extends an appreciable distance beyond the end of the finger portion 12 of the gripping member 16 so as to provide sufficient length for supporting a frictionally retained rotatable sleeve mounting member 28 which is provided with suitable projecting portions 30 for pivotally supporting the restraining or locking member 18.

The sleeve 28 may have provided at the interior thereof an annular recess 32 which is engaged by a portion of a spring 34 mounted within the extension portion of the bar 14. One end of the resilient member 34 engages the inner surface of the bar 14 and the other end thereof projects through an aperture 36 so that the end of the spring may engage the annular recess 32 of the supporting collar or sleeve 28. The spring 34

therefore serves to frictionally retain in position the sleeve 28 although by the application of sufficient force the sleeve 28 may be rotated so as to position the locking member 18 at any desired angular position relative to the bar 14. The locking member 18 at a short distance beyond the pivotal connection with the extensions 30 of the sleeve 28 is provided with inwardly curved portions 38 adapted to engage oppositely arranged recesses or slots 40 formed in the sleeve 28 for retaining the locking member 18 in the locking position shown in Figures 1 and 2.

During the time when the strand of hair 10 is being wound into the form of a curl 12 on the bar 14 the locking member 18 is in its locked position as shown in Figure 2. In this position the locking member 18 is prevented from rotating with the bar 14 by the fingers of the operator's hand. In other words, while the operator turns a finger grip cap 42 which is secured to one end of the bar 14 the other hand holds the locking member 18 against rotation. During this operation the curl is wound around the bar 14 and the gripping member 16, as illustrated in Figure 4. Due to the fact that the bar or tube 14 is adapted to be rotated relatively to the locking member or bale 18 the user may tighten the curl against the scalp to any desired degree. Once the curl has been tightened in the position shown in Figure 4 it will retain that position and be prevented from uncurling by reason of the bale or locking member 18. It should be understood that while relative rotation between the tube or bar 14 and the bale 18 takes place during the initial tightening of the curl, such rotation is continuously counteracted by the action of the spring 34 engaging the sleeve 28. This frictional engagement of the spring 34 with the sleeve 28 is sufficient to prevent inadvertent or unauthorized uncurling of the strand after it has been tightened against the user's scalp in the position illustrated in Figure 4. Thus during the time that the curl is drying and being set it is prevented from uncurling and loosening by the action of the resilient member or spring 34 upon the sleeve 28. The user's scalp is indicated by dot and dash lines in Figures 4 and 5.

When it is desired to release the curler it is only necessary to pivot the locking member or bale 18 away from the curl to the dotted position illustrated in Figure 1, thereby releasing the strand. In Figure 5 the curl is shown released from the bale 18 in position to permit longitudinal withdrawal of the curler. While in the disclosed embodiment the strand gripping member 16 is formed with a finger operating portion 22 which is biased by the spring 20, it should be understood that in some instances this structure may be eliminated. Under such circumstances the weight of the gripping member 16 is sufficient to effect the initial gripping of the strand, and the longitudinal withdrawal of the curler from the finished curl may be occasioned without the necessity of manually releasing the gripping member. In other words, the use of a spring biased or freely pivoted gripping member is optional.

While for the purpose of illustration and description a certain preferred embodiment of the present invention has been shown, it is to be understood that the invention is not to be limited thereby since obviously such variations may be made as are commensurate with the scope of the invention as defined in the appended claims.

This invention is hereby claimed as follows:

1. A hair curler having a body and a gripping

member having a finger piece and cooperating therewith for securing a strand of hair thereon, a wire loop locking member extending the length of said body, a support member rotatably mounted on said body adjacent said finger piece for said gripping member for pivotally supporting said locking member, said support member having detent portions arranged for engagement by said locking member to retain said locking member in a position to maintain a strand of hair in wound condition, and resilient biasing means interconnecting said support member and said body to permit forcible rotation of said support member and to restrain free movement of said support member and said locking member.

2. A hair curler comprising a hollow bar upon which a strand of hair may be wound, gripping means for securing the end of said strand to said bar, a locking member adapted to maintain the strand in wound condition, said locking member being carried by a support member, said support member being carried by said hollow bar for relative rotation with respect thereto, and a resilient biasing spring interposed between said bar and said support member in fixed position relative to said bar to resist rotation of said locking member relative to said bar.

3. A hair curler comprising a hollow bar upon which a strand of hair may be wound, gripping means for securing the end of said strand to the bar, said hollow bar extending axially beyond said gripping means, a support member rotatably mounted on the extension portion of said hollow bar, a pivoted loop-shaped locking member mounted on said support member, said support member being provided with means for cooperating with said locking member to retain said locking member in locking position so as to overlie the strand of hair wound on said hollow bar, and resilient means interconnecting said hollow bar and said support member for resisting rotation of said support member and locking member relative to said bar.

4. A hair curler comprising a hollow bar upon which a strand of hair may be wound, gripping means for securing said strand to said bar, said hollow bar extending axially beyond said gripping means, a support sleeve rotatably mounted on said end of said hollow bar, said support sleeve having formed therein an annular groove, resilient spring means mounted within said hollow bar and extending through an aperture therein into engagement with the annular groove of said support sleeve, a pivoted locking member mounted on said support sleeve and arranged to maintain the strand of hair in wound condition on said hollow bar, said support sleeve and said locking member being provided with cooperating portions for resiliently retaining said locking member in one position.

5. A hair curler comprising a hollow perforated bar on which a strand of hair may be wound, a generally semi-cylindrical pivoted gripping means adapted to overlie the substantial portion of said bar to secure an end of a strand of hair thereto, said gripping means being provided with a finger operating portion, said hollow bar extending beyond the finger operating portion of said gripping means, a support sleeve rotatably mounted on said portion of said hollow bar extending beyond said finger operating means, resilient means interposed between said bar and said hollow support sleeve to resist rotation of said sleeve relative to said bar, a loop-shaped locking member adapted to overlie the length of said

hollow bar in spaced relation thereto to maintain a strand of hair in wound condition, said locking member being pivotally mounted on said support sleeve, said support sleeve being provided with opposite recess portions, and said locking member being provided with portions for engagement with said recesses to tend to maintain said locking member in overlying position relative to said hollow bar.

6. A hair curler comprising a hollow perforated bar upon which a strand of hair may be wound, gripping means for securing said strand to said bar, said hollow bar extending axially beyond said gripping means, a support sleeve rotatably mounted on said end of said hollow bar, said support sleeve being formed with an annular boss to provide an internal annular groove, an

aperture in said hollow bar adjacent said end for cooperation with the annular groove of said support sleeve, resilient spring means mounted within said hollow bar and extending through said aperture into engagement with the annular groove of said support sleeve, a loop shaped locking member adapted to overlie the length of said hollow bar in spaced relation thereto to maintain a strand of hair in wound condition, said locking member being pivotally mounted on said support sleeve, said support sleeve being provided with opposite recessed portions, said locking member being provided with portions for engagement with said recessed portions to tend to maintain said locking member in overlying position relative to said hollow bar.

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