April 9, 1968 J. ROSÁN 3,376,875

HAIR CURLER WITH REMOVABLE ROTATING MEANS

Filed Feb. 25, 1964

Fig. 1

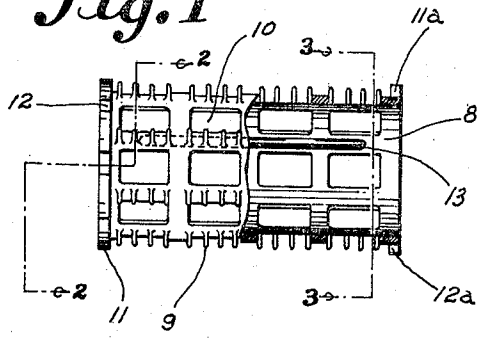
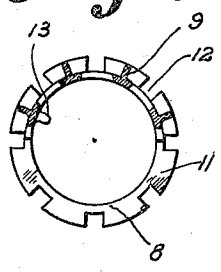


Fig. 2



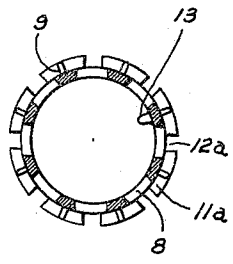


Fig. 3

Fig. 4

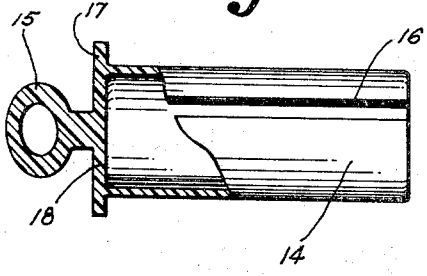
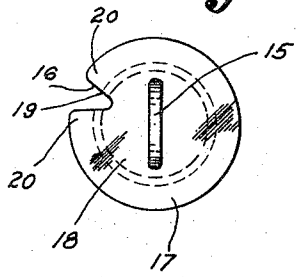


Fig. 5



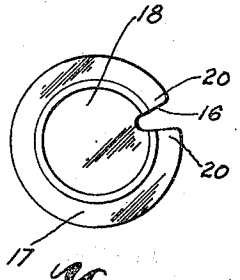
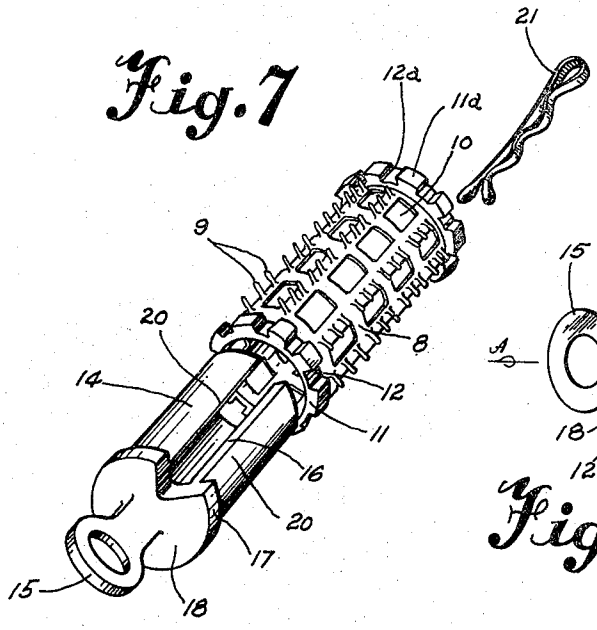


Fig. 6

Fig. 7



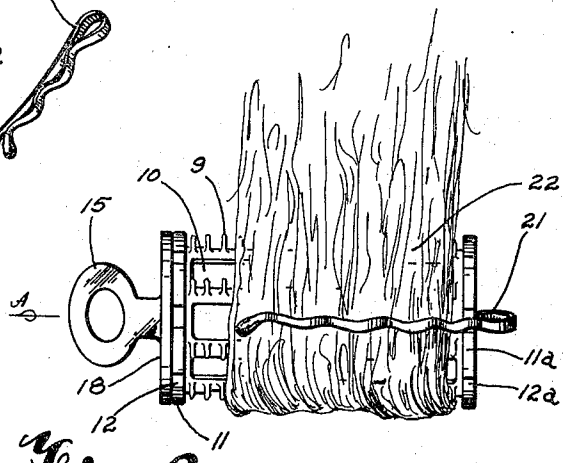


Fig. 8

INVENTOR.
José Rosán
BY Roman A. Dikus
ATTORNEY

United States Patent Office 3,376,875 Patented Apr. 9, 1968

3,376,875

HAIR CURLER WITH REMOVABLE ROTATING MEANS

José Rosán, Rancho San Juan, San Juan Capistrano, Calif. 92675

Filed Feb. 25, 1964, Ser. No. 347,279
8 Claims. (Cl. 132—34)

This invention relates to a hair curler and more specifically to a relatively light weight, flexible curler capable of forming a satisfactory curl, yet not causing discomfort when the wearer's head rests upon it. Heretofore, pliable hair curlers which were intended to be worn in the hair during sleeping hours were not possessed of sufficient rigidity during the curl rolling process to result in a satisfactory curl. Prior flexible curlers would deform when the hair was being curled, due to the tension required to ensure the proper tightness in the curl. This tension would deform the curler during the rolling stage and consequently result in an unsatisfactorily formed curl. Accordingly, the principal object of this invention is to provide a hair curler with extremely simple design, having a light weight construction, yet possessing sufficient lateral strength to provide a uniform curl.

Still another object is to provide a hair curler which is noncollapsible during the curl forming stage, yet sufficiently flexible to avoid discomfort when the hair curler is worn during sleep.

Further objects and advantages of the invention will become apparent from the following description taken in conjunction with the accompanying drawings, in which:

FIG. 1 is an elevational view, partly sectioned, showing the outer body of the device of the present invention;

FIG. 2 is a top plan view, partly in section, taken on line 2—2 of FIG. 1;

FIG. 3 is a sectional bottom plan view, taken on line 3—3 of FIG. 1;

FIG. 4 is an elevational view, partly sectioned of the supporting and driving inner body;

FIG. 5 is a top plan view of the inner body of FIG. 4;

FIG. 6 is a bottom plan view of the illustration of FIG. 4;

FIG. 7 is a perspective view of an embodiment of the present invention, showing the inner body prior to insertion into the outer body and further showing a hair securement means, prior to engagement with the device of the present invention;

FIG. 8 is an elevational view, showing a hair curler just after forming a curl of hair and prior to withdrawing the inner body from the outer body and showing the curled hair secured to the hair and the curler, by securement means consisting of a bobby pin straddling said hair and bodies.

Referring more particularly to FIG. 1, numeral **8** designates generally an annular body. As illustrated, body **8** is provided with hair gripping means **9** and ventilation apertures **10**. Annular flange **11**, situated at one end of body **8** and annular flange **11***a*, situated at the opposite end thereof, are provided with slots **12** and **12***a*, respectively. Said slots **12** and **12***a* are adapted to accommodate a bobby pin or other hair securing device, so that the curler is maintained in contact with the curl after the curl has been formed. Body **8** is also provided with internal longitudinally extending integral rib **13**, which is adapted to be engaged by slot **16** of rotating inner body **14** shown in FIG. 4. It should be noted that rib **13** does not extend to either end of body **8**, but terminates short of the ends so that no obstruction is encountered by the inner body **14** when it is inserted into the outer body **8**. Thus, in this configuration the end of inner body **14** may be partially inserted into outer body **8**. Once the end of the inner body

is inserted into the outer body, it can then be rotated until slot **16** is aligned with rib **13**. Upon such alignment, inner body **14** can then be fully inserted into the outer body **8**. Thereafter, upon rotation of inner body **14**, slot **16** thereof becomes fully engaged with internal rib **13** carried by outer body **8**, thereby simultaneously rotating outer body **8** so as to form a curl in the hair.

FIGS. 2 and 3 show a top plan view partially sectioned and a sectional bottom plan view, respectively, of the body illustrated in FIG. 1. Slots **12** of FIG. 2 are illustrated in various positions around the periphery of the annular flanges, so that a bobby pin or the like may, for convenience, be utilized at more than one position in conjunction with the curler. It will be noted from FIGS. 2 and 3 that both flanges **11** and **11***a* carried by body **8** are provided with slots **12** and **12***a*, respectively, thus avoiding the necessity for a preferred position of the outer body **8** when the curler is used. Thus, inner body **14** may be inserted from either end of body **8** and a bobby pin or other securing means may be accommodated in slots **12** or **12***a*, regardless of the end in which the bobby pin or fastener is inserted.

FIG. 4 shows the inner rotating and supporting means consisting of a cylindrical body **14** provided with means adapted to be rotated, which in this case is a rotatable knob **15**, axially projecting therefrom. Body **14** has a longitudinal slot **16**, which extends the full length of body **14**. Body **14** is further provided with an annular abutment flange **17**, which is adapted to be engaged by either annular flange **11** or **11***a* carried by body **8** in order to ensure that inner body **14** is inserted to a specific predetermined position. Inner body **14** is also provided with end wall **18** which carries rotatable knob **15** and is provided with opening **19** (see FIG. 5). Said opening **19** of end wall **18** is situated so that edge portions **20** of slots **16** are able to laterally flex to facilitate the entry of inner body **14** into outer body **8**.

FIGS. 5 and 6 illustrate a top plan view and a bottom plan view, respectively, of the inner body **14** of FIG. 4. Opening **19** provided by end wall **18** is situated adjacent slot **16**.

FIG. 7 is a perspective view of an embodiment of the present invention, wherein the inner body **14** of FIG. 4 is shown positioned prior to entrance into outer body **8** of FIG. 1. As illustrated, the securing means above described consists of a bobby pin **21**.

FIG. 8 shows the device of FIG. 7 after having formed a hair curl **22** and just prior to withdrawing inner body **14** from outer body **8**. As illustrated, the securement means whereby the curled hair **22** is maintained rolled about the hair curler is a bobby pin **21**. Upon securing said curled hair to the hair curler with bobby pin **21**, inner body **14** will then be withdrawn in the direction indicated by arrow A, leaving the hair curl **22** rolled about outer body **8** and secured to said outer body by bobby pin **21**.

When the invention is used, outer body **8** which contains inner body **14** inserted therein, is positioned laterally across the strands of hair which are to be curled. Hair gripping means **9** engage the strands of hair and hold them securely in place. Inner body **14** is rotated until internal rib **13** carried by outer body **8** is engaged by slot **16** of inner body **14**. After such engagement, as inner body **14** is continuously rotated, outer body **8** simultaneously rotates, thereby rolling strands of hair into the desired curl. When the desired curl is obtained, bobby pin **21** is inserted into slots **12** or **12***a* of outer body **8**, so that bobby pin **21** straddles the curled hair and inner and outer bodies **8** and **14**, respectively.

Inner body **14** is then withdrawn from outer body **8**, leaving the curled hair secured in position about outer

body 8 by bobby pin 21. Since the curled hair is generally moistened either before or after curling, ventilation slots 10 then allow a continuous passage of air through the moistened hair, thereby facilitating the drying thereof. Although, as described, bobby pin 21 is utilized only to secure the curled hair after curling, it is understood that if additional securement of the hair to outer body 8 is desired, an additional bobby pin may be utilized to secure the hair ends to bodies 8 and 14 and will be rolled simultaneously with the hair curler. Again, after the curl is formed, bobby pin 21 would then be used to straddle the curled hair and bodies 8 and 14. Both bobby pins would then remain secured to the curled hair until it is desired to remove the outer body 8 of the hair curler from the curled hair. It should be evident from the foregoing that although outer body 8 may be composed of a flexible and pliable material, inner body 14 provides sufficient lateral strength to the hair curler during the rolling operation, thereby ensuring a satisfactory configuration of the curled hair.

While one embodiment of the invention and the method of use thereof have been described, it is, of course, understood that the particular embodiment of the invention herein disclosed is for illustrative purposes only and that various changes may be made therein without departing from the principles of the invention or the scope of the annexed claims.

I claim:

1. A hair curler comprising:

a first body, said body being substantially cylindrical and pliable, said first body being provided with integral external hair gripping means, an annular flange having grooves around the outer periphery thereof being positioned on at least one end of said first body, said first body having an internal longitudinal rib;

a second body, said second body being cylindrical and adapted to be accommodated within said first body, said second body being provided with means for interengaging said first body so as to permit simultaneous rotation of both the bodies, and means for rotating the second body, and said second body being and capable of being withdrawn from said first body after forming a hair curl around said first body.

2. A hair curler as described in claim 1, wherein said second body is comprised of a hollow cylinder and wherein said interengaging means is a longitudinal slot which engages the internal longitudinal rib carried by said first body.

3. A hair curler as described in claim 1, wherein said hair gripping means carried by said first body are comprised of a plurality of longitudinally spaced radial fingers outwardly extending from said first body.

4. A hair curler as described in claim 3, wherein said first body is provided with ventilation apertures to facilitate the drying of hair wound thereabout.

5. A hair curler as described in claim 4, wherein said first body is provided with radial flanges at each end thereof, said flanges having a plurality of grooves around the periphery thereof for accommodating hair securing means.

6. In a hair curler, the combination of:

a cylindrical, pliable outer body having radially extending hair gripping means and ventilation apertures, said body being provided with annular flanges at each end thereof, said flanges having a plurality of grooves around the periphery thereof, said body being provided with an internal, longitudinally extending rib;

an inner body fitted within said outer body, said inner body being provided with a longitudinal slot adapted to allow flexible movement of the slot edges of said body, said longitudinal slot engaging said internal rib carried by said outer body, said inner body having a radial abutment flange adapted to seat against the end flange of said outer body and to rotate said inner body; and

securement means adapted to straddle the curled hair and the inner and outer bodies so as to secure said hair to said bodies.

7. The combination described in claim 6, wherein said longitudinally extending internal rib, carried by said outer body does not extend to either end of said outer body, and wherein said hair securement means is a bobby pin or the like.

8. A hair curler as described in claim 2, wherein said rotational means on said second body is an annular abutment flange adjacent to the rearward end of the second body.

References Cited

UNITED STATES PATENTS

2,369,752	2/1945	Ostrander.	
2,741,249	4/1956	Oppman	132—41
2,796,872	6/1957	Mussy	132—40
3,064,659	11/1962	Solomon	132—40

L. W. TRAPP, *Primary Examiner.*

RICHARD A. GAUDET, *Examiner.*

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,376,875 April 9, 1968

José Rosán

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

Column 1, line 55, "annular" should read -- outer --. Column 3, line 44, cancel "and".

Signed and sealed this 23rd day of September 1969.

(SEAL)
Attest:

Edward M. Fletcher, Jr.
Attesting Officer

WILLIAM E. SCHUYLER, JR.
Commissioner of Patents