(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 721 747 B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
07.06.2000 Bulletin 2000/23

(51) Int Cl.[7]: **A45D 2/18**

(21) Application number: **95108609.9**

(22) Date of filing: **06.06.1995**

(54) **Hair curler**

Lockenwickel

Bigoudi

(84) Designated Contracting States:
DE ES FR GB IT

(30) Priority: **11.01.1995 CH 6695**

(43) Date of publication of application:
17.07.1996 Bulletin 1996/29

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EP 0 721 747 B1

Printed by Jouve, 75001 PARIS (FR)

Description

[0001] The present invention relates to hair curlers in general and in particular to a type of curler which grips the hair while facilitating winding the same onto it to produce waves that look natural and are not uni-directional.

[0002] Aerated hair curlers which grip the hair to facilitate rolling and setting the same are already known in the art. Such hair curlers have good aeration and grip characteristics, but they do not allow a large quantity of hair or very long hair to be wound onto them and they can only produce uni-directional waves.

[0003] There are also curlers in the form of long cylindrical rollers made of foam-rubber with a flexible metal core.

[0004] They are fixed to the head by bending the extremities into a U-shape after the hair has been wound on to them. Due to their nature, these curlers cannot be aerated and accordingly they must be usually used with dry or slightly damp hair, and the "natural" waves have no real consistency.

[0005] There are also curlers formed of metal springs covered by a soft fabric; after the hair has been wound onto them, these rollers are affixed to the head by bending them back on themselves up to obtain a circle and clipping the two extremities together by means of shaped interlocking parts. These curlers allow natural, non uni-directional waves to be formed, differently from the traditional curlers. However, they are not aerated either, and can be used only on dry or slightly damp hair. Furthermore, their surface is usually smooth, making it difficult to wind hair (especially short hair) on; it is also not easy to wind large quantities of hair onto such rollers.

[0006] FR-B-687.623 dating back to 1930, discloses such a hair curler made of a metal spring; the spring has hooks at opposite ends and is covered with a fabric. The main drawback of this curler is that it has to be used with electrically heated metal shells into which the curler and the hair rolled onto it are inserted: after heating the shells the desired curls are obtained. Use of asbestos fabrics is suggested to protect the user's head from the heat of the metal shells.

[0007] FR-B-1.248.464 discloses a curler giving uni-directional waves that has a cylindrical hollow body and a ribbon that adheres to the hair and is made of Velcro, sand-paper or a flocked surface. This ribbon is rigid and not aerated. With use it was found that this ribbon damages the hair and plucks off some hair from the user's head when it is unrolled.

[0008] Other types of roller similar to the described ones suffer from similar drawbacks.

[0009] The present invention overcomes these drawbacks and provides an extremely aerated curler which facilitates winding on the hair and gripping it in such a way as to produce natural and not uni-directional waves, as well as corkscrew-shaped hair or waves limited at the free terminal part of the hair.

[0010] The curler according to the present invention is of the type comprising an elongated, cylindrical body which can be bent back on itself form a position in which its axis is rectilinear to a position in which it forms a closed ring or a semicircle, and carrying at its ends attachment means to maintain such last position, characterized according to claim 1.

[0011] The present invention will now be described in more detail with reference to preferred embodiments given only as illustrative and therefore not limiting examples, as shown in the attached drawings, in which:

Fig. 1 is a view with parts in section of a first embodiment of the curler;
Fig.2 is a view of the curler of fig. 1 when fixed in position after the hair has been wound onto it;
Fig.3 is a cutaway view with parts in section of the curler, showing in its interior a support element for means to grip the hair, which projects through the curler body and sheath;
Fig.4 is a plan view of a portion of a material used to cover the curler body according to an embodiment of the present invention;
Fig.5 is a view of a curler fixed in the form of a semicircle after the hair has been wound onto it.

[0012] As it can be seen from fig.1, in which a partly cutaway curler is shown, a curler cylindrical body C is formed by helically wound strips 5, which cross over and are mutally fixed at their crossing points, to form a very aerated and flexible support. This support is covered by a net sheath 6, which prevents the hair from getting between the helical elements 5. Around the central part of the curler an aerated, flexible fabric 7 is wound, said fabric carrying filament-like protruding elements 8 to grip the hair. Such filament-like elements 8 project in a substantially radial direction from the aerated fabric 7.

[0013] A male snap-locking element 9 (formed by a series of plastic strips 10 which join together to form a very elastic ellipsoidal body) projects from one end of the curler. At the other end of the curler a ring 11 forms the female part of a snap lock. The male element 9, when it is inserted with its elastic strips 10 into the ring 11 at the other end of the curler, closes and locks the curler in the form of a closed circle after the hair has been wound on it, as it can be seen from fig.2.

[0014] Fig.2 shows, in a view of the curler of Fig 1 with cutway parts, the strips 10 of male element 9 snap-locked inside female locking ring 11 of the body C after hair 12 has been wound on it. The two ends of the curler remain locked together holding the curler in place, due to the resilience of the elastic strips 10.

[0015] Fig.3 shows a partially cutaway view of another embodiment of the present invention. The area presenting the filament-like protruding elements 8 has tubular inserts 13 with zig-zag connecting elements 14 - which make the inserts flexible - and holes 15 which aerate the same, said tubular inserts 13 being equipped with hair-gripping elements 8 projecting between the helical parts

5 forming the basic structure of the curler, and projecting also through the overlying net sheath 6.

[0016] Fig.4 shows a material used to form the sheath of a curler according to the present invention. It is formed by lines of chain-links 16 held by keeper-rings 17 which slide between the interstices of the chain-links 16 to warrant a highly flexible structure. Some of the central chain-links 16 have filament-like protruding elements 8 which grip the hair and facilitate winding it on.

[0017] Fig. 5 shows another embodiment of the present invention in which the curler is maintained in a semi-circular shape after the hair 12 has been wound on. The curler is held in the desired position by an elastic or rigid band 22 retained by a knot 18, or a mobile or rotatable ball, in a cap 19 inserted into one end of the curler and hooked over the element 20 inserted into the other end of the curler hollow body C.

[0018] Besides the embodiments described above, the hollow body C of the curler according to the present invention can be formed according to many further embodiments; it could be formed by a spiral-shaped spring or by a rigid central ring and two flexible side parts, or by strips of a flexible plastic material inserted into a sheath, or it may be formed in whole or in part of articulated aerated sections. The hollow body could also be formed by bellows with aeration holes in it.

[0019] The filament-like hair-gripping elements 8, instead of being carried by a flexible aerated fabric 7, could project directly from the body C of the curler, or they could be woven directly into the elastic sheath.

[0020] Furthermore, the sheath which covers the body C of the curler could comprise a net of rough and "rubbery" material, to facilitate winding the hair onto it.

[0021] The curling attachment means to maintain the same in its curved position could be carried-out according to different designs: they could be rigid locking pieces or could be attached to the body C of the curler by bellows which could lengthen or shorten the curler as needed. The curler could also be kept in the required shape by a bar or a unextendable or elastic element which connect the two ends of the same.

[0022] From the foregoing it appears that large quantities of long hair can be wound onto the curler according to the present invention to produce naturally-shaped hair waves due to the circular or semi-circular form assumed when the curler is retained on the head. The curler is particularly suited to wet hair due to the high level of aeration made possible, so that the hot air from an hair-drier can circulate freely and thus the waves setting times are short. The setting time is also reduced by the fact that the filament-like elements comb the hair and facilitate winding it onto the curlers. Hairstyles which have been set using the curlers according to the present invention look modern and naturally waved. The curlers can be used to give a last-minute curl to the ends of hair that has already been put up.

Claims

1. A hair curler to produce natural waving of hair, comprising an elongated, cylindrical body (C) which can be bent back on itself from a position in which its axis is rectilinear to a position in which it forms a closed ring or a semicircle, and carrying at its ends attachment means (9, 11) to maintain such last position, characterised in that said cylindrical body (C) is a hollow, flexible and aerated body formed by several helical elements (5) crossing over and joined at the cross-over points, in that hair retaining elements (8) project in a substantially radial direction from at least one flexible and aerated area of said curler, and in that said attachment means (9, 11) comprise a female (11) part projecting from one end of said body (C) and a male (9,10) part projecting from the opposite end of said body (C).

2. A curler according to Claim 1, characterised in that said hair retaining projections (8) are filament-like elements projecting from an aerated flexible fabric (7) placed at least in the curler central portion.

3. A curler according to Claim 1, characterised in that said cylindrical body (C) is covered, in whole or in part, by an aerated elastic sheath (6).

4. A curler according to Claim 3, characterised in that said sheath (6) covering said cylindrical body (C) is formed by a knitted flexible material obtained by lines of chain-links (16) and keeper-rings (17) which run in the spaces between said chain-links (16).

5. A curler according to Claim 2 or 3, characterised in that said filament-like elements (8) are woven directly into said elastic sheath (6).

6. A curler according to claim 4, characterised in that some of said chain-links (16) have filament-like protruding elements.

7. A curler according to Claim 1, characterised in that said hair retaining (8) elements project from aerated flexible inserts (13) placed in the inner cavity of said cylindrical body (C).

8. A curler according to Claim 1, characterised in that said hair retaining elements (8) project directly from said aerated, hollow cylindrical body (C).

9. A curler according to Claim 1, characterised in that bellows elements form part of said cylindrical body (C) or of said attachment means (9, 11), to allow for a lengthening or shortening of said curler as required.

Patentansprüche

1. Lockenwickel zum Erzeugen von natürlich gewelltem Haar, umfassend einen länglichen, zylindrischen Körper (C),der aus einer Position, in der seine Achse geradlinig zu einer Position ist, in der er einen geschlossenen Ring oder einen Halbkreis bildet, zu sich selbst zurückgebogen werden kann, und an seinen Enden Befestigungsmittel (9, 11) trägt, um jene letzte Position beizubehalten, gekennzeichnet dadurch, daß der zylindrische Körper (C) ein hohler, flexibler und belüfteter Körper ist, der durch mehrere schneckenförmige Elemente (5) gebildet wird, die sich überkreuzen und an den Kreuzungspunkten verbunden sind, daß Haarfesthalteelemente (8) von mindestens einem flexiblen und belüfteten Bereich des Lockenwickels in einer im wesentlichen radialen Richtung hervorstehen und daß die Befestigungsmittel (9, 11) ein aufnehmendes Teil (11), das von einem Ende des Körpers (C) hervorsteht, und ein Einsteckteil (9, 10) umfaßt, das von dem gegenüberliegenden Ende des Körpers (C) hervorsteht.

2. Lockenwickel gemäß Anspruch 1, gekennzeichnet dadurch, daß die Haarfesthaltevorsprünge (8) faserähnliche Elemente sind, die von einem belüfteten,flexiblen, mindestens in dem Mittelteil des Lokkenwickels angeordneten Gewebe (7) hervorstehen.

3. Lockenwickel gemäß Anspruch 1, gekennzeichnet dadurch, daß der zylindrische Körper (C) vollständig oder teilweise mit einem belüfteten, elastischen Mantel (6) überzogen ist.

4. Lockenwickel gemäß Anspruch 3, gekennzeichnet dadurch, daß der Mantel (6), der den zylindrischen Körper (C) überzieht, durch ein gewirktes flexibles Material gebildet wird, das durch Reihen von Kettengliedern (16) und Halteringen (17) erhalten wird, die in den Zwischenräumen zwischen den Kettengliedern (16) laufen.

5. Lockenwickel gemäß Anspruch 2 oder 3, gekennzeichnet dadurch, daß die faserähnlichen Elemente (8) direkt in den elastischen Mantel (6) eingewoben sind.

6. Lockenwickel gemäß Anspruch 4, gekennzeichnet dadurch, daß einige der Kettenglieder (16) faserähnliche hervorstehende Elemente besitzen.

7. Lockenwickel gemäß Anspruch 1, gekennzeichnet dadurch, daß die Haarfesthalteelemente (8) von belüfteten, flexiblen Einsätzen (13) hervorstehen, die im Innenhohlraum des zylindrischen Körpers (C) angeordnet sind.

8. Lockenwickel gemäß Anspruch 1, gekennzeichnet dadurch, daß die Haarfesthalteelemente (8) direkt von dem belüfteten, hohlzylindrischen Körper (C) hervorstehen.

9. Lockenwickel gemäß Anspruch 1, gekennzeichnet dadurch, daß Wellrohrelemente einen Teil des zylindrischen Körpers (C) oder der Befestigungsmittel (9, 11) bilden, um bei Erfordernis ein Verlängern oder Verkürzen des Lockenwickels zu erlauben.

Revendications

1. Bigoudi pour produire une ondulation naturelle des cheveux, comprenant un corps cylindrique allongé (C) qui peut être replié sur lui-même, à partir d'une position dans laquelle son axe est rectiligne vers une position dans laquelle il forme un anneau fermé ou un demi-cercle, et comportant à ses extrémités des moyens d'attache (9,11) pour maintenir cette dernière position, caractérisé en ce que ledit corps cylindrique (C) est un corps creux, souple et aéré, formé par plusieurs éléments hélicoïdaux (5) se croisant et se joignant aux points de croisement, et en ce que des éléments de retenue des cheveux (8) font saillie dans une direction sensiblement radiale à partir d'au moins une région souple et aérée dudit bigoudi, et en ce que lesdits moyens d'attache (9,11) comprennent une partie femelle (11) qui fait saillie à partir d'une extrémité dudit corps (C) et une partie male (9,10) qui fait saillie à partir de l'extrémité opposée dudit corps (C).

2. Bigoudi selon la revendication 1, caractérisé en ce que lesdites saillies de retenue des cheveux (8) sont des éléments en forme de filament qui font saillie à partir d'un tissu souple et aéré (7) placé au moins dans la partie centrale du bigoudi.

3. Bigoudi selon la revendication 1, caractérisé en ce que ledit corps cylindrique (C) est recouvert, en totalité ou en partie, par une gaine élastique aérée (6).

4. Bigoudi selon la revendication 3, caractérisé en ce que ladite gaine (6) recouvrant ledit corps cylindrique (C) est formée d'une matière tricotée souple, obtenue par des lignes de maillons en chaîne (16) et des anneaux de maintien (17) qui s'étendent dans les espaces entre lesdits maillons (16).

5. Bigoudi selon la revendication 2 ou 3, caractérisé en ce que lesdits éléments en forme de filament (8) sont tissés directement dans ladite gaine élastique (6).

6. Bigoudi selon la revendication 4, caractérisé en ce que certaines desdits maillons possèdent des élé-

ments saillants en forme de filament.

7. Bigoudi selon la revendication 1, caractérisé en ce que lesdits éléments de retenue des cheveux (8) font saillie à partir d'inserts souples et aérés (13) disposés dans la cavité intérieure dudit corps cylindrique (C).

8. Bigoudi selon la revendication 1, caractérisé en ce que lesdits éléments de retenue des cheveux font directement saillie à partir dudit corps cylindrique creux et aéré (C).

9. Bigoudi selon la revendication 1, caractérisé en ce que des éléments en forme de soufflet constituent une partie dudit corps cylindrique (C) ou desdits moyens d'attache (9,11), pour permettre un allongement ou un raccourcissement dudit bigoudi selon le cas.

Fig. 1

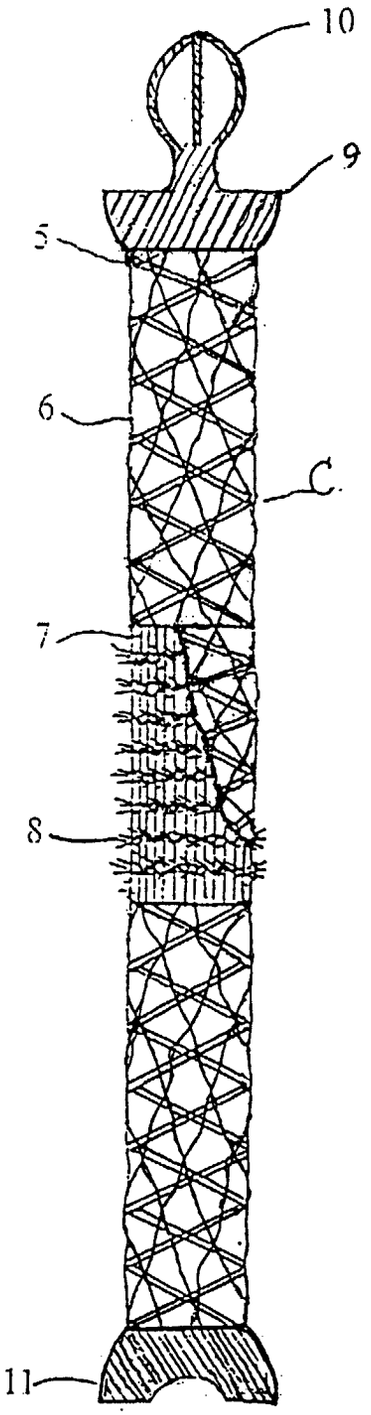

Fig. 2

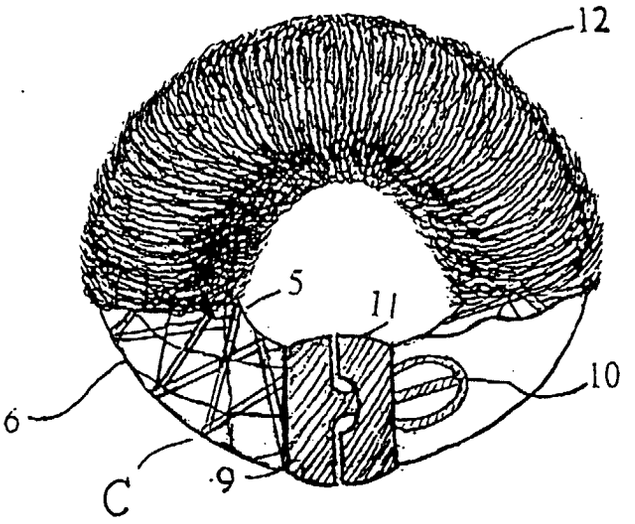

Fig. 3

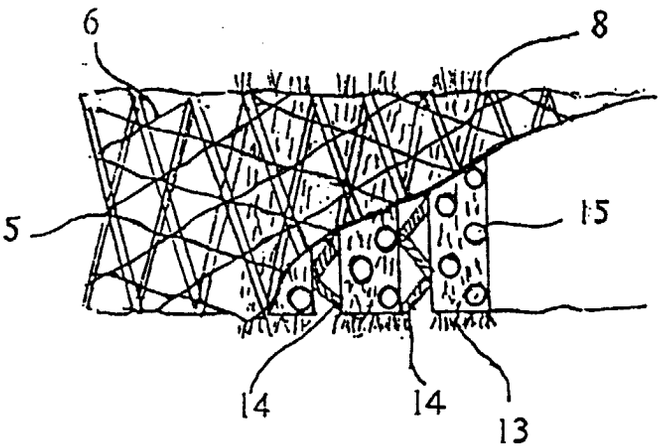

Fig. 4

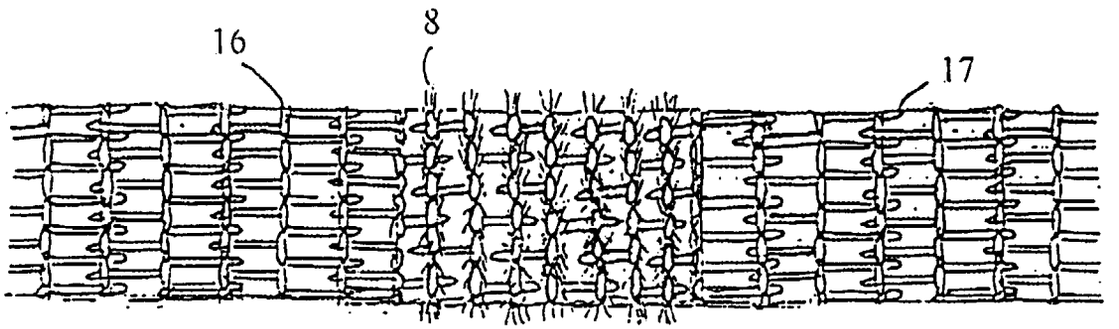

Fig. 5