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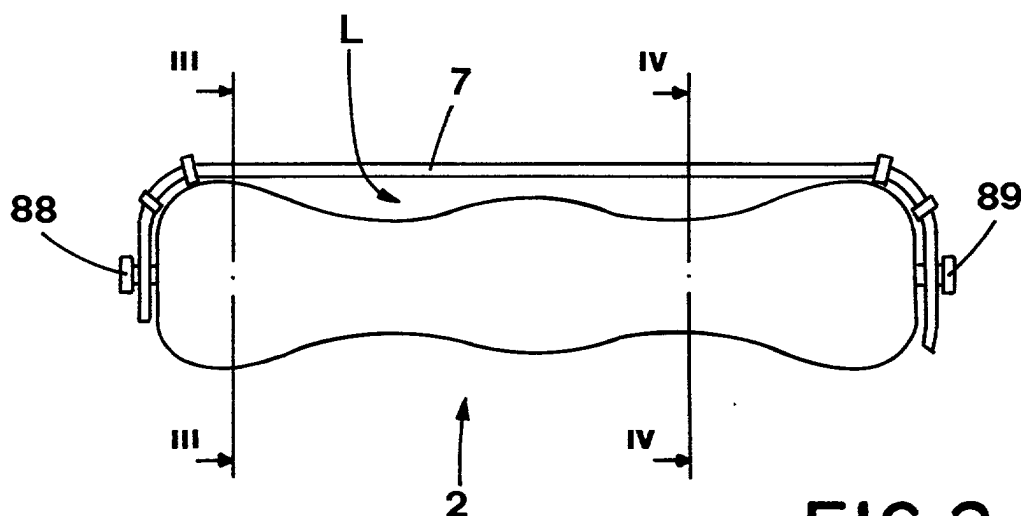
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(54) **Curler for hairstyles and permanent waves**

(57) The curler for hairstyles and permanent waves includes an elongated body, symmetrical with respect to the central vertical and horizontal planes.

The cross sections of said body have, along the lon-

gitudinal extension of said body, a profile similar to an elliptical area with cross section changing continuously from a minimum to a maximum extension, in relation to a predetermined direction.



**FIG. 2**

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## Description

**[0001]** The present invention relates to curlers for hairstyles and permanent waves.

**[0002]** Curlers of different sizes are known, adapted to be used by the operators of the field to perform particular "curled" hairstyles, or for permanent waves, with more or less waving according to the customer's desires.

**[0003]** A first type of curler includes a cylinder, with a stick introduced therein.

**[0004]** The ends of the stick protrude from the cylinder and have enlarged sections of different size.

**[0005]** The enlarged sections are adapted to lock a special small elastic strip extending longitudinally with respect to the cylinder and aimed at fixing the curler during use. The diameter of the intermediate portion of the cylinder reduces progressively, so as to facilitate the operator when rolling up a hair lock onto the curler.

**[0006]** A variant of this type of curler includes a cylindrical-shaped member at the ends of which corresponding covers are fastened. The central parts of the covers feature each a corresponding pin and a head, to which a suitable small elastic strip is fastened, which acts as described above.

**[0007]** A second type of curler is flat and has slightly curved walls, connected by two sides. The flat curler has a regular thickness for the entire extension, and a slight narrowing in the central portion of the sides.

**[0008]** The heads of the above curler feature connecting members, integral therewith and aimed at longitudinally locking a stretched small elastic strip, which acts as described above.

**[0009]** A third type of curler includes two discs with a kind of barrel placed therebetween.

**[0010]** The discs feature in their central part connecting members, aimed at longitudinally locking a stretched small elastic strip, so as to block the curler during its use.

**[0011]** A fourth type of curler is formed by two parts: the first one includes a cylindrical element with pointed ends; the second part features a frame made of two bars, whose length is equal to the length of the cylindrical portion of the first part. The first and the second parts are joined by four circular strips.

**[0012]** Using this curler, the hair lock is rolled around the cylindrical element and locked by the frame applied to the cylindrical element with pressure.

**[0013]** Said curlers allow to obtain "curled" or waved hairstyles, depending on the type and size of curler used.

**[0014]** Even if performed with care and with particular techniques, the final hairstyle looks unnatural, that is to say, the difference between a natural curled/waved hairstyle and the one obtained artificially is visible.

**[0015]** Moreover, in the specific case of a permanent, where it is necessary to use acids for fixing the hairstyle, it happens that the shape of the curlers mentioned above and the pressure exerted by the elastic strip lock-

ing the hair lock damage the hair lock under the elastic strip (hair incision or cut).

**[0016]** If a waved permanent with a more natural effect is desired, a series of curlers of a different size must be used, with a consequent loss of time for the operator. The feature of the invention is to propose a curler with a simple design and low manufacturing costs, which allows to obtain as natural a hairstyle as possible.

**[0017]** Another object of the present invention is to propose a curler, whose shape allows to prevent damages to the hair, and avoids undesired folds in the hairstyle resulting from the pressure exerted by said elastic strip on the hair lock.

**[0018]** A further object of the present invention is to propose a curler which facilitates the operator in obtaining the desired results, accelerating the operation by reducing the quantity of curlers to be applied.

**[0019]** The above mentioned objects are obtained by the present invention in accordance with the claims.

**[0020]** The characteristic features of the present invention will be pointed out in the following description with reference to the enclosed drawings, in which:

- Figure 1 is a top view of the proposed curler;
- Figure 2 is a lateral view of the proposed curler;
- Figure 3 is a section view taken along III-III of Figure 2;
- Figure 4 is a section view taken along IV-IV of Figure 2.

**[0021]** With reference to the enclosed drawings, the reference numeral 2 indicates a curler for hairstyles and permanent waves, which has an elongated shape, symmetrical with respect to the central vertical and horizontal planes.

**[0022]** The cross sections of the curler 2, along the longitudinal extension thereof, have a profile similar to an elliptical one with a continuously variable cross section area.

**[0023]** In the example shown in figures 1, 2, the curler has two heads 3, 4, connected to a central portion 8 by two narrow portions 5, 6; the cross section of the central portion is smaller than the maximum cross section of the heads.

**[0024]** At its ends, the curler 2 features, integral therewith and concentric with respect to the ends, connecting members 88, 89, respectively, protruding outwards.

**[0025]** A small elastic strip 7 (of known type), stretched longitudinally with respect to the curler, is removably fastened to the connecting members.

**[0026]** The small elastic strip 7 is in contact only with the heads 3, 4, in the region of the maximum section thereof, while it does not touch the remaining part of the curler due to the particular shape of the curler, which leaves an open space L, through which the hair rolled

on the curler pass.

[0027] Thus, the pressure exerted on the hair by the small strip 7 is considerably reduced.

[0028] In non-use condition, the small elastic strip 7 of the curler 2 is coupled to the connecting members 88, 89; before using the curler, an operator must release the small elastic strip 7 from one of the connecting members, for example from member 89.

[0029] Then, the operator rolls a hair lock onto the curler, and locks the latter together with the hair lock, by hooking the small elastic strip 7 to the same connecting member 89.

[0030] It is to be pointed out that the curler is proposed in different sizes, needed to perform the required hairstyles on different hair lengths.

[0031] The described curler proposed for hairstyles and permanents is particularly advantageous because of its elongated shape, symmetrical with respect to the horizontal and vertical planes, with cross sections having a profile similar to an elliptical area with a variable cross section, which allows to obtain hairstyles or permanents with a more natural look.

[0032] The natural effect is obtained due to the fact that the hair lock that the operator rolls onto the curler has areas with a different waving; more precisely, the waves are more marked for the hair rolled at the narrow portions 5, 6, and less marked for the hair rolled on the central portion 8.

[0033] The proposed curler allows to obtain waves with a natural effect, since all the curlers used by the operator have identical size, thus allowing the operator to save time when applying the same.

[0034] Moreover, the number of curlers to apply is reduced, thus obtaining a better final result; in fact, as different waves are obtained on each curler, it is no longer necessary to apply a series of curlers of different size to obtain a similar effect.

[0035] The shape of the curler is advantageous also because the pressure of the elastic strip 7 on the rolled hair lock is very slight, which allows to avoid undesired folds near the elastic strip and, in case hairstyle fixing acids are used, the hair lock under the elastic strip is not damaged.

[0036] It is understood that what above, has been described as a pure, not limitative example, therefore, possible variants of the invention remain within the protective scope of the present technical solution, as described above and claimed hereinafter.

## Claims

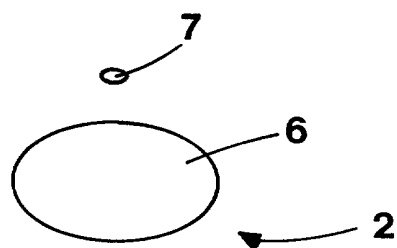
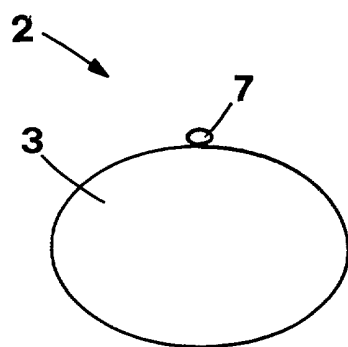
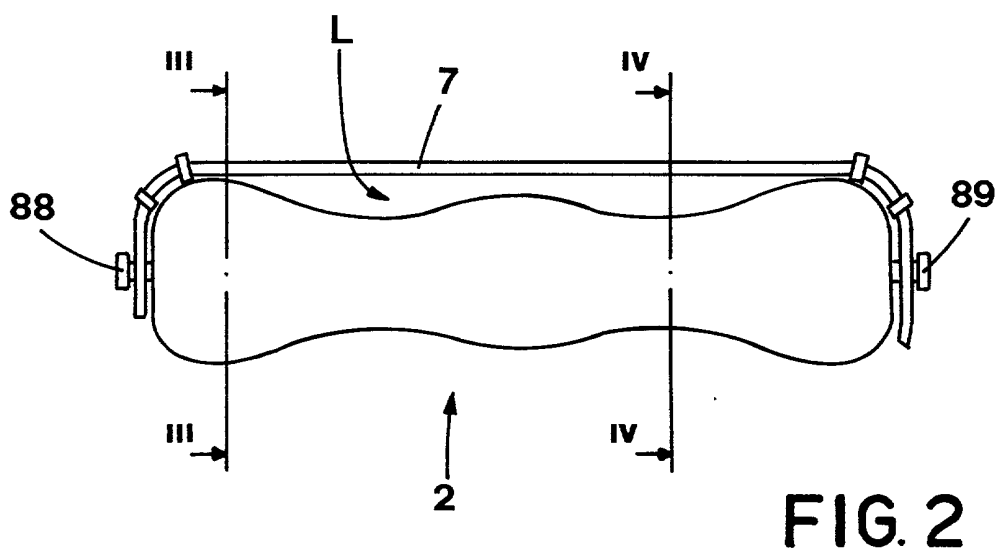
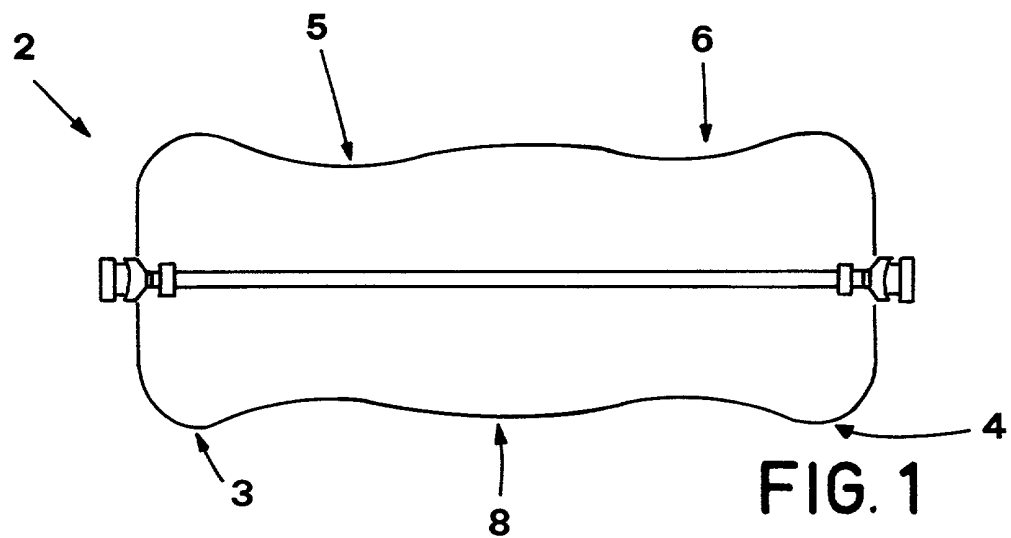
1. Curler for hairstyles and permanent waves **characterized in that** it includes an elongated body, symmetrical with respect to central vertical and horizontal planes, said body having, along the longitudinal extension, a profile similar to an elliptical area with cross section continuously changing from a mini-

um to a maximum extension, in relation to a predetermined direction.

2. Curler for hairstyles and permanent waves, according to claim 1, **characterized in that** said body has, at its ends, connecting members (88,89) protruding outwards, to which elastic means are removably fastened.
3. Curler for hairstyles and permanent waves, according to claim 1 or 2, **characterized in that** said body includes two heads (3,4) connected to a central portion (8) by two narrow portions (5,6); the cross section of said central portion being smaller than the maximum cross section of said heads (3,4).
4. Curler for hairstyles and permanent waves, according to claim 3, **characterized in that** said elastic means (7), stretched longitudinally with respect to the curler, touch said heads (3,4) only in the region of the maximum section thereof, while they do not touch the remaining part of the curler, so as to define an open space L, which allows the passage of the hair rolled on said curler.

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## EUROPEAN SEARCH REPORT

Application Number  
EP 00 12 3365

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A45D
Place of search		Date of completion of the search	Examiner
THE HAGUE		16 July 2001	Claudel, B
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P44Cor1)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 00 12 3365

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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16-07-2001

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