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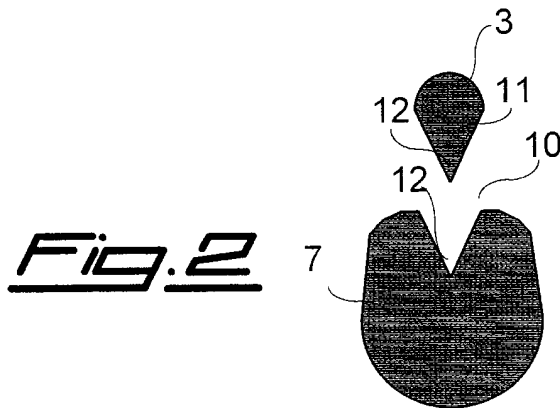
(84) Designated Contracting States: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE Designated Extension States: AL LT LV MK RO SI	(72) Inventor: Trizio, Salvatore 43100 Parma (PR) (IT)
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(54)

Device for waving hair

(57) The present invention relates to a device for waving hair close to the head skin. The device is of the pliers-type wherein the two jaws (1,2) have at their ends one or several longitudinal triangular-sectioned relieves

(11) and the same number of notches (10) respectively, the notches being complementary to said relieves. The hair which is inserted between said relieves and said notches is permanently waved at the base, so that it acquires the desired volume.



Description

[0001] The present invention relates to a device for waving hair, particularly to a device wherein the part suitable for waving hair is formed of two jaws, one jaw being provided with one or several longitudinal relieves and the other being provided with the same number of notches, complementary to said relieves.

[0002] The known devices for waving hair comprise two plates, one being generally provided with three to six relieves and the other with the same number of notches. By pressing a lock of hair between the two hot plates, the shape of said assembly of relieves and notches is reproduced on the hair. Since these devices are used for creating hair-styles with waves or the so-called "frisé" effect, said relieves and notches are very broad and generally provided with rounded corners.

[0003] However, it is sometimes desirable to increase the volume of the hair without changing its appearance, that is, without waving it in a way which is visible from the outside. Obtaining this result is not possible by using the devices according to the state of the art, because the plates, which have a considerable width, cannot get very close to the base of the hair. Besides, the broad and flattened profile of the notches and relieves in the known devices does not allow a notable increase of the hair volume to be obtained at the hair base.

[0004] Therefore, object of the present invention is providing a device for waving hair which can be used for increasing the volume of the hair at the base. Said object is achieved by a device whose main features are specified in the first claim and other features are specified in the depending claims.

[0005] By virtue of the thin structure of the device according to the present invention, which is provided with one or several pairs of relieves and notches having a particularly narrow profile, it is possible to wave the hair close to the head skin, thus solving the problem of the hair which is straight and flat at the base. The hair treated by means of the device according to the present invention acquires volume and thus a more pleasant aesthetic appearance, no visible waving being produced on the whole hair length.

[0006] Further advantages and features of the device according to the present invention will appear to those which are skilled in the art from the following detailed description of two embodiments thereof with reference to the accompanying drawings, wherein:

- figure 1 shows a side view of the device according to a first embodiment of the present invention;
- figure 2 shows a cross-sectioned view according to plane II-II of the embodiment of figure 1; and
- figure 3 shows a cross-sectioned view of the device according to a second embodiment of the present invention.

[0007] With reference to figure 1, there is shown that

the device according to the present invention has the structure of a pair of pliers, consisting of two jaws 1 and 2 hinged on pin 9. Jaw 1 is formed of three rectilinear portions 3, 4 and 5 of which the right one 3 and the left one 5 are substantially parallel with respect to each other, whereas the central one 4 connects the first two obliquely.

[0008] Jaw 2 has a different shape from jaw 1: it is rectilinear and provided with a left portion 6 of cylindrical shape and a right portion 7. Portion 7, having at the left end a cylindrical shape similar to left portion 6, is higher in the remaining part. An outward protruding block 8 is provided between portions 6 and 7.

[0009] Pin 9, which connects in an articulated way jaws 1 and 2, is arranged in the upper part of central portion 4 of jaw 1 and in portion 7 of jaw 2, respectively.

[0010] Left portions 5 and 6 of the two jaws form the device handle, whereas right portions 3 and 7 of these jaws carry the parts which are active in waving hair. Block 8 has the function of a hilt, since it protects the user's hand from the heat applied to portions 3 and 7 during the device working. Portion 6 at the left of block 8 is preferably coated with an isolating material.

[0011] With reference to figure 2, there is shown that portion 7 has a substantially elliptical cross-section and is provided in the upper part thereof with a longitudinal notch 10 having a substantially triangular cross-section. The size of angle 12 at the vertex of notch 10 can generally vary within 40° and 60°. Particularly, in the present embodiment of the invention said angle is about 53°, whereas the maximum width of notch 10 is lower than 8 mm, preferably of about 4 mm. Portion 3 has a cylindrical shape and a cross-section smaller than that of portion 7, and is provided with a longitudinal relief 11 in the lower part thereof, which is suitably shaped and dimensioned so as to be complementary to notch 10. Therefore, it is suitable for being perfectly inserted into said notch when the jaws are closed, and for waving the hair which is inserted between the two. In other embodiments of the device according to the present invention, notch 10 and relief 11 can be provided with other profiles and size, according to the desired waving of the hair.

[0012] Further, the device according to the present invention can be provided with more than one pair of notch and relief. For example, figure 3 shows the cross-section of a device according to a second embodiment of the present invention, comprising three pairs of relieves and notches whose profile and size are similar to that of the device of figures 1 and 2. By virtue of the reduced width of relieves and notches, the total width of said device remains small, preferably lower than 2,5 cm. In the embodiment shown in figure 3 said width is about 1,5 cm.

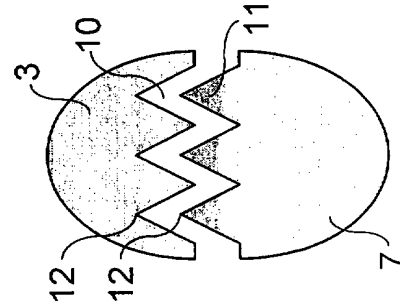
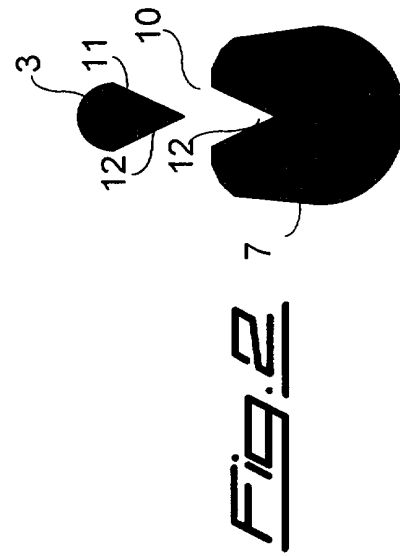
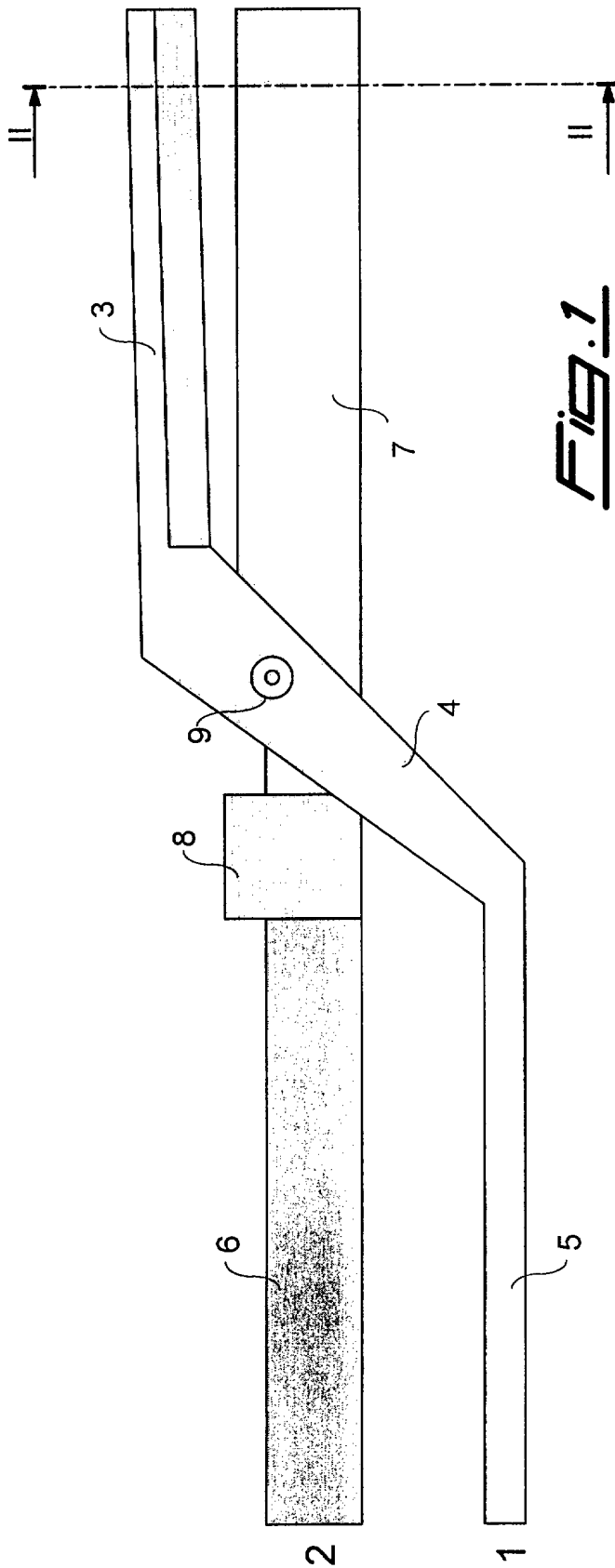
[0013] Finally, the device preferably comprises means for heating portions 3 and/or 7. For instance, a resistor connected by means of a powering cable to an external power source can be inserted inside one or both said portions. Alternatively, the means for heating

portions 3 and/or 7 can be positioned externally to the device according to the present invention. Particularly, a suitable heating apparatus can be provided, having a cavity wherein portions 3 and 7 are periodically inserted during the use

[0014] In order to use the device, a lock of hair is inserted between hot portions 3 and 7 and pressed by operating the handle. By virtue of the very reduced thickness of the device, it can be moved close to the hair base and the waving can be carried out in that position. Further, by virtue of the particular triangular shape of relieves and notches, the waving conferred to the hair is very sharp and causes a great increase of the volume of the hair at the base thereof. However, said waving remains not visible from outside, and therefore the overall effect seems to be natural.

Claims

1. Hair waving device of the pliers-type, comprising two jaws (1, 2) connected to each other by means of a pin (9), the left portions (5, 6) of the jaws forming the handle and the right portions (3, 7) forming the parts active in waving hair, characterized in that one or several longitudinal notches (10) are provided on the right portion (7) of one jaw (2) and the same number of relieves (11) are provided on the right portion (3) of the other jaw (1), said relieves having a profile substantially complementary to that of said notches (10) and being suitable for insertion inside them when the two jaws are closed.
2. Device according to claim 1, characterized in that the notches (10) and the relieves (11) are provided with a substantially identical triangular cross-section.
3. Device according to claim 2, characterized in that the angle at the vertex (12) of said notches (10) and said relieves (11) is within 40° and 60°.
4. Device according to any of the preceding claims, characterized in that the angle at the vertex (12) of said notches (10) and said relieves (11) is 53°.
5. Device according to any of the preceding claims, characterized in that the maximum width of said notches (10) and said relieves (11) is lower than 8 mm.
6. Device according to the preceding claim, characterized in that the maximum width of said notches (10) and relieves (11) is 4 mm.
7. Device according to any of the preceding claims, characterized in that the width of said right portions (3, 7) is lower than 2,5 cm.
8. Device according to any of the claims 1 to 6, characterized in that the number of said longitudinal notches (10) and longitudinal relieves (11) is three.
9. Device according to one of the preceding claims, characterized in that at least one between said right portions (3, 7) of the jaws (1, 2) is provided with heating means.





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 00 83 0355

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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 THE HAGUE		Date of completion of the search 14 August 2000	Examiner Sigwalt, C
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 00 83 0355

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The members are as contained in the European Patent Office EDP file on
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