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(19) **United States**(12) **Patent Application Publication**
PALOTAI(10) **Pub. No.: US 2016/0058151 A1**(43) **Pub. Date: Mar. 3, 2016**(54) **HAIR SHAPING DEVICE AND PROCEDURE
FOR ITS UTILISATION***A45D 1/04* (2006.01)*A45D 7/02* (2006.01)*A45D 2/00* (2006.01)(71) Applicant: **Olivér PALOTAI**, Budapest (HU)(52) **U.S. Cl.**(72) Inventor: **Olivér PALOTAI**, Budapest (HU)CPC .. *A45D 2/40* (2013.01); *A45D 7/02* (2013.01);*A45D 2/001* (2013.01); *A45D 1/04* (2013.01);*A45D 1/28* (2013.01)(21) Appl. No.: **14/443,073**(22) PCT Filed: **Apr. 28, 2014**(86) PCT No.: **PCT/HU2014/000035**

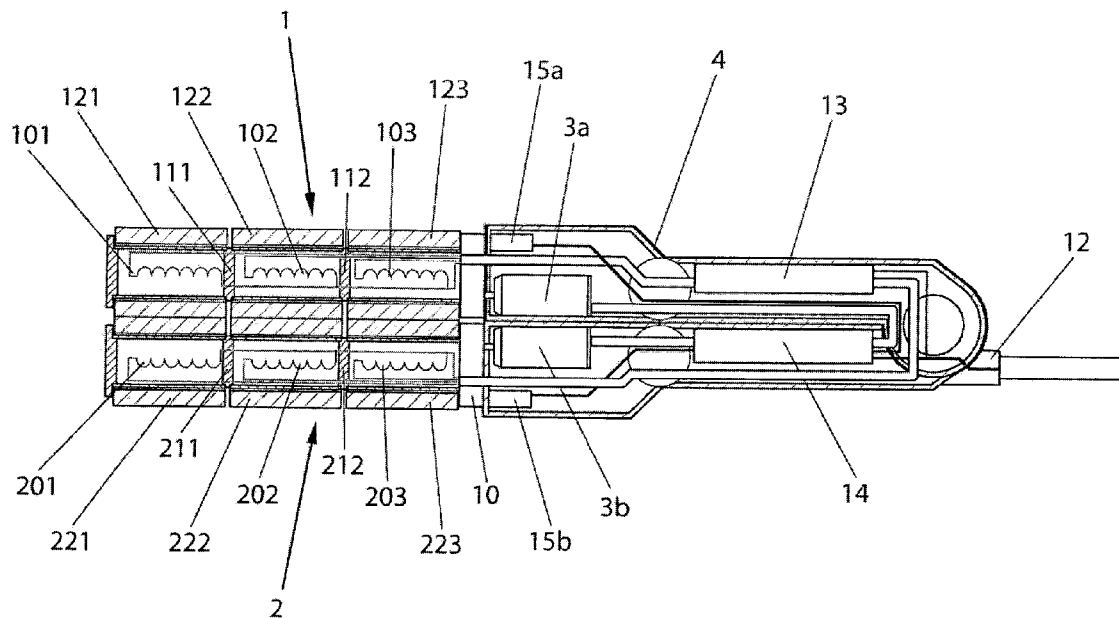
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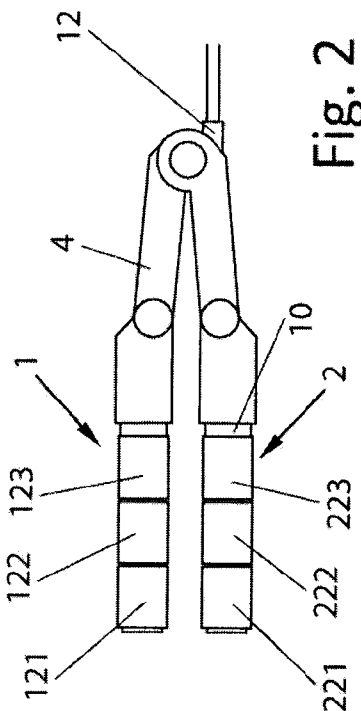
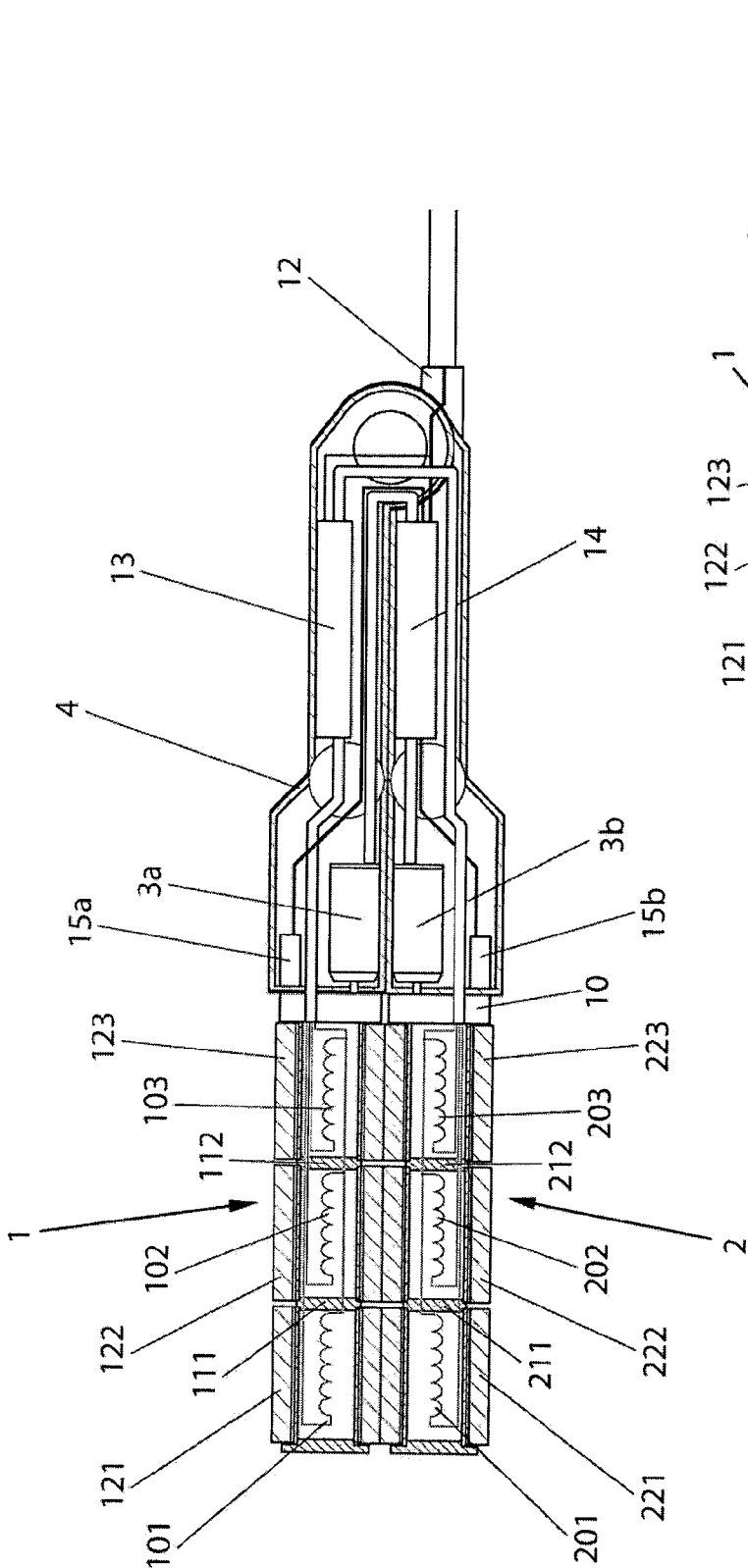
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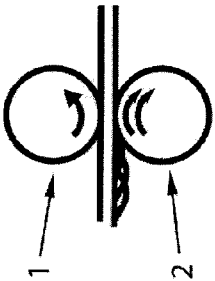
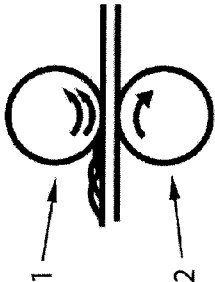
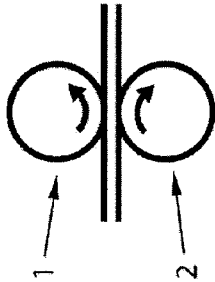
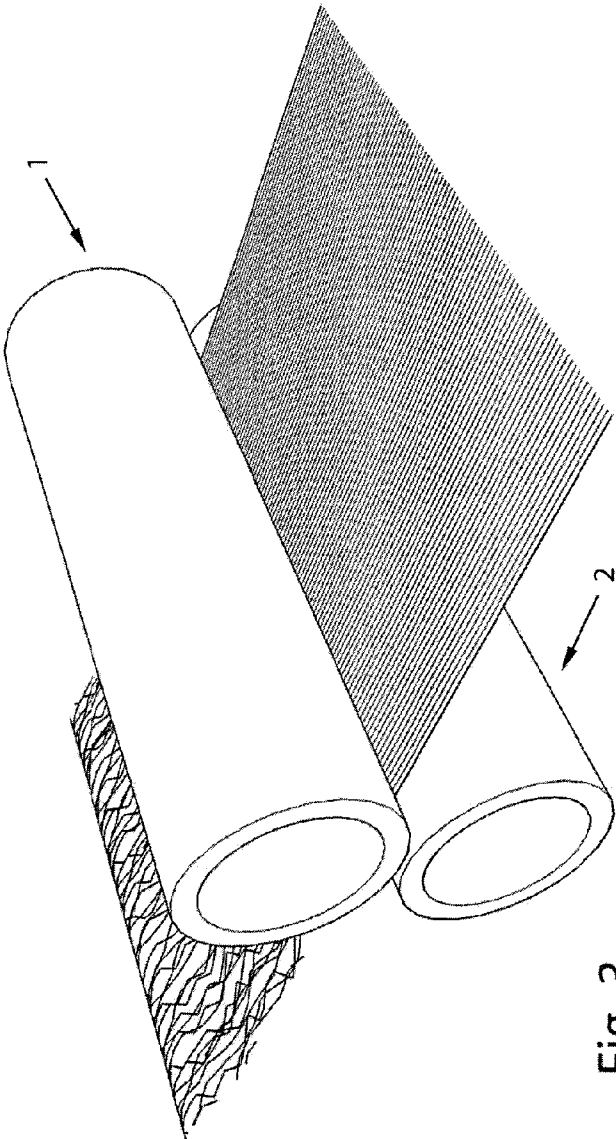
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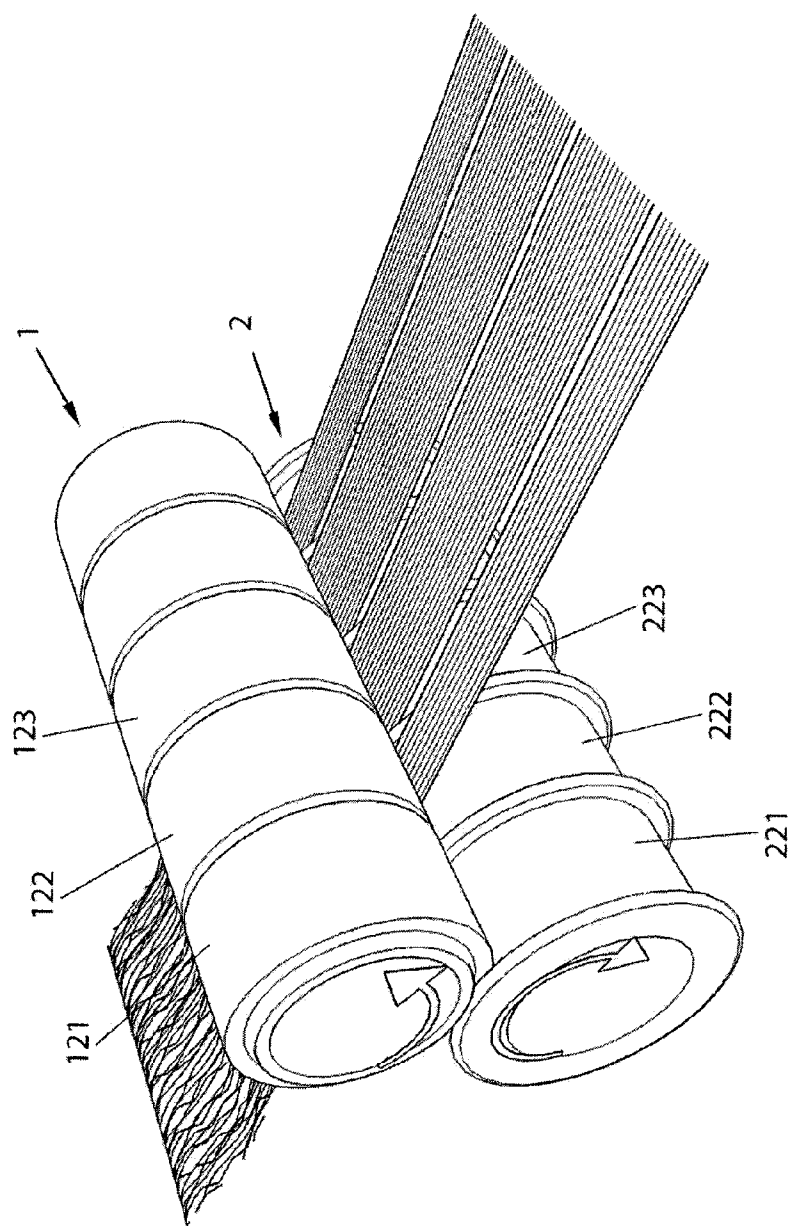
Publication Classification(51) **Int. Cl.***A45D 2/40* (2006.01)*A45D 1/28* (2006.01)(57) **ABSTRACT**

The invention relates to a hair shaping device for smoothening, pressing, and curling hair and other body hair, and for drawing patterns into hair and other body hair, which has a house and two heatable rolls. The invention is characterized in that the both the primary roll (1) and the secondary roll (2) is connected to an electromotor (3a, 3b), the electromotors (3a, 3b) are connected to the primary roll (1) and the secondary roll (2) through driving components (10), and the rolls (1, 2) are fitted with a cover (121, 122, 123, 221, 222, 223) that can produce unique, repeated patterns, and the cover (121, 122, 123, 221, 222, 223) consists of at least two segments, and each roll (1, 2) includes at least two heating units (101, 102, 103, 201, 202, 203). The invention also relates to the procedure for using the hair shaping device.









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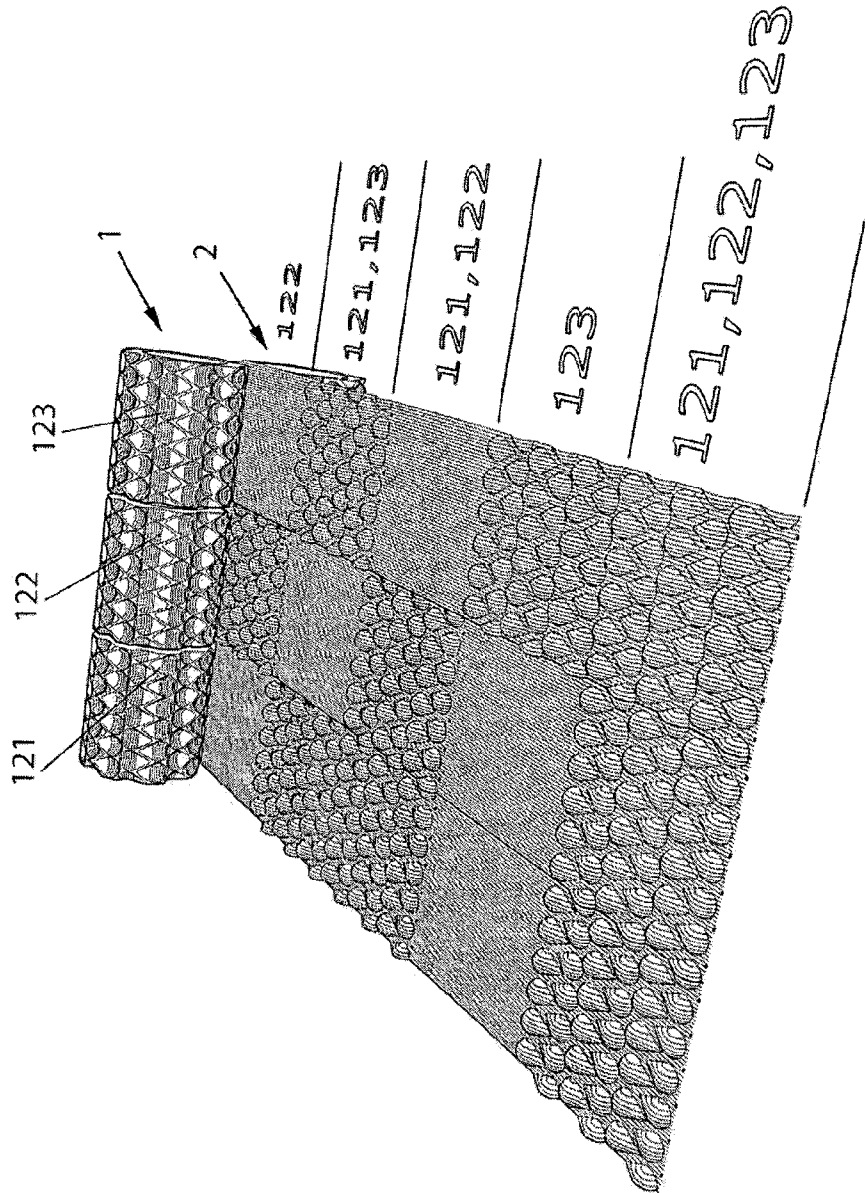


Fig. 8

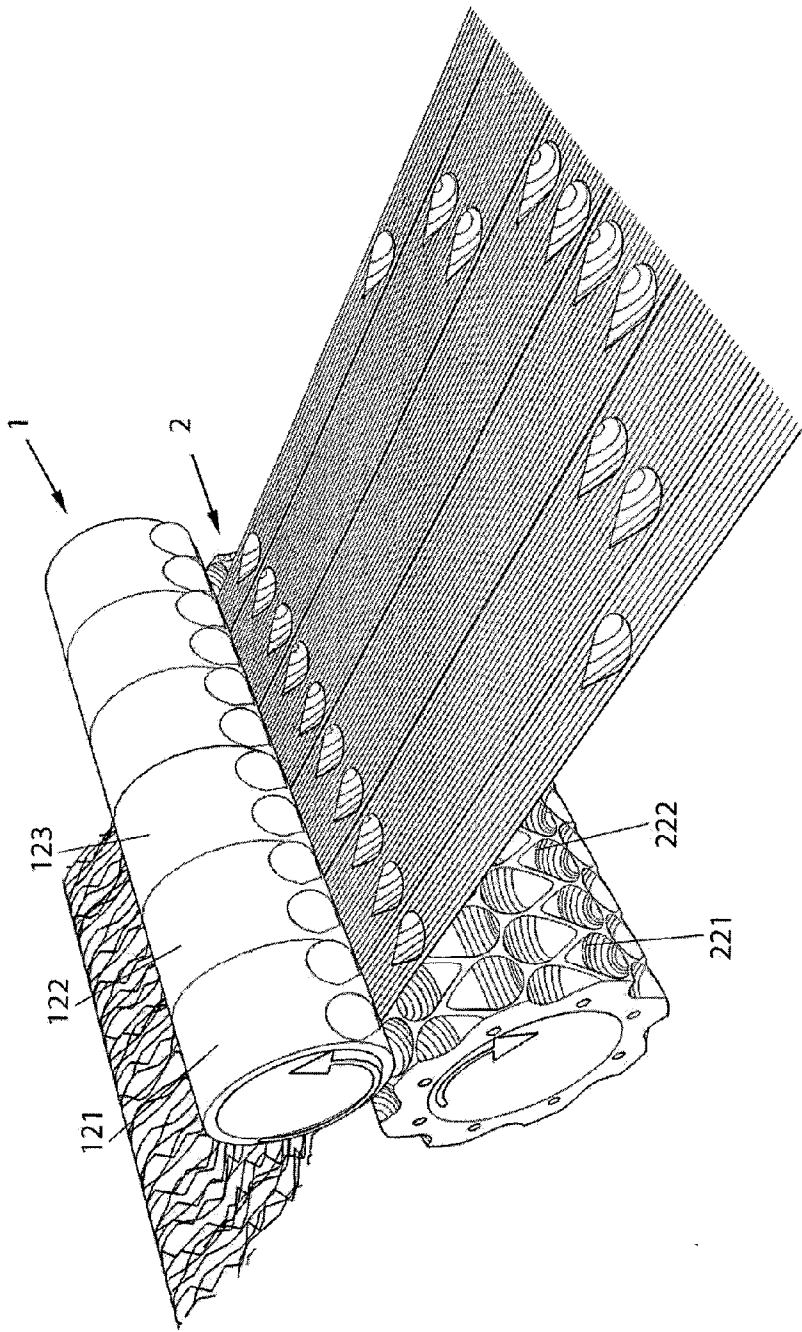


Fig. 9

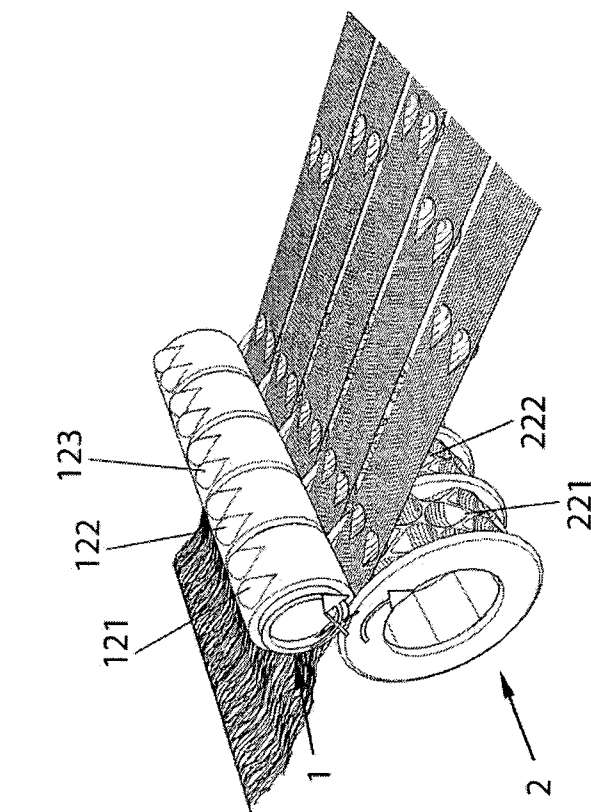
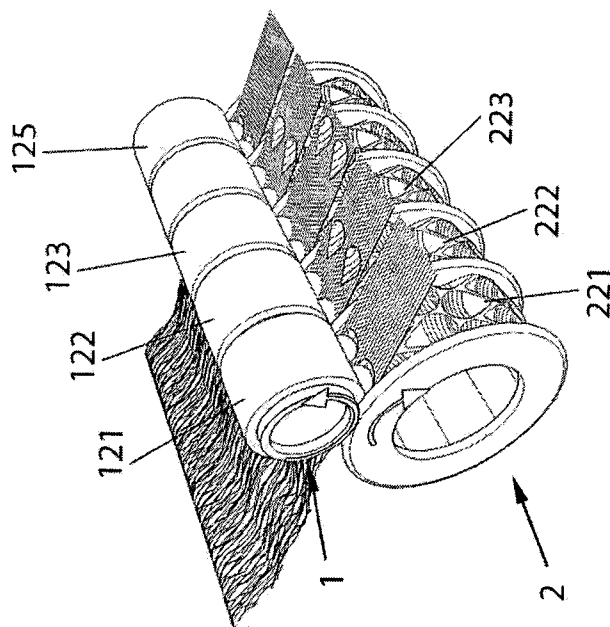


Fig. 11



Fi. 10

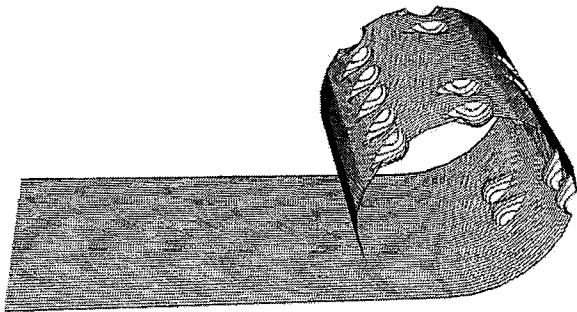


Fig. 14

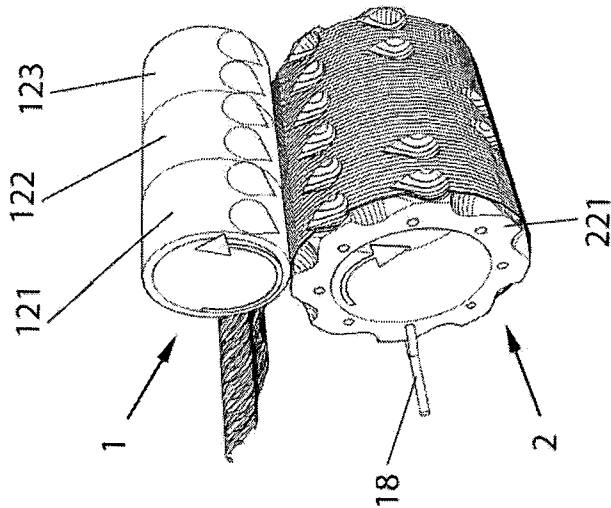


Fig. 13

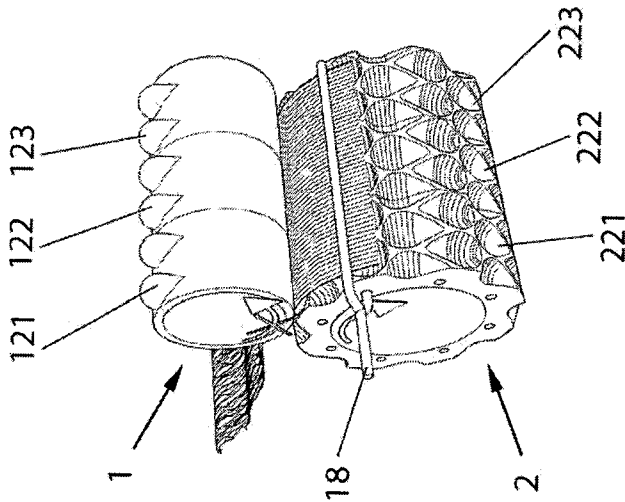


Fig. 12

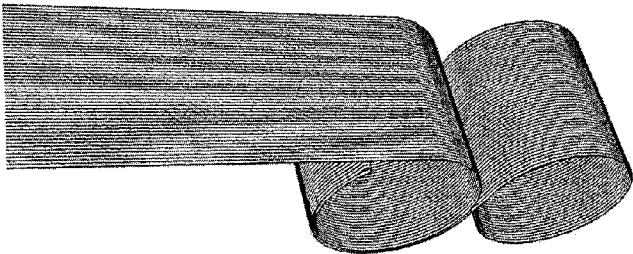


Fig. 17

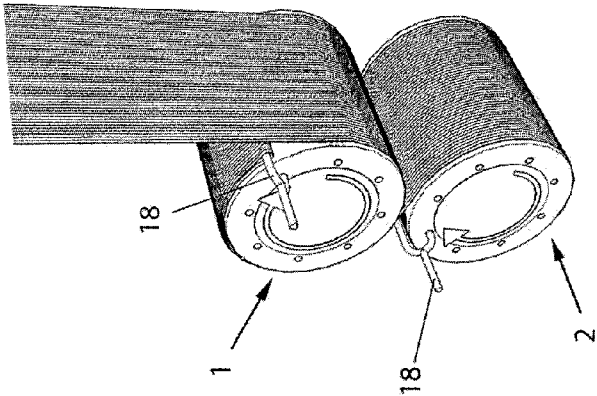


Fig. 16

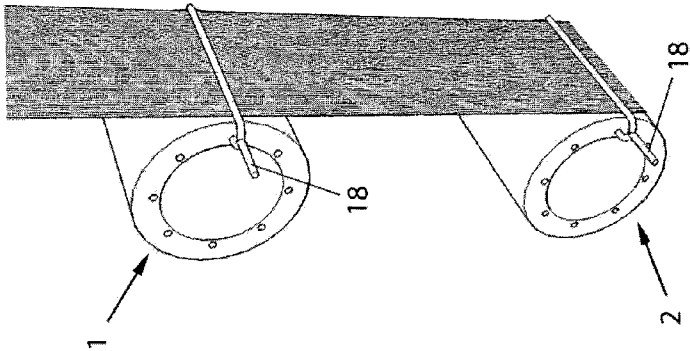


Fig. 15

HAIR SHAPING DEVICE AND PROCEDURE FOR ITS UTILISATION

BACKGROUND

[0001] The subject of the invention is a hair shaping device for smoothening, pressing, and curling hair and other body hair, and for drawing patterns into hair and other body hair, which has a house and two heatable rolls.

[0002] There are numerous known hair shaping devices that can be used, among others, for curling or straightening hair. Several devices in the prior art can be used to create unique patterns in the hair.

[0003] The South-Korean patent document No. KR100792621 B1 describes an invention that shapes the hair with two rotating heads. This solution also has an external house, and heated rolls driven by an electromotor, but it also has serious disadvantages. The electromotor drives the lower roll only, while the upper roll is driven by the lower roll through cog-wheels. Another disadvantage is that the lower roll is heated only, so this device is not fit for shaping the hair in a speedy and efficient manner, since the cog-wheel based connection is also weak, and heating is limited as mentioned above. The position of the external house of the South-Korean hair styler is also disadvantageous. This is because the house includes both rolls, and the house is the only component pressing the hair to the roll. Thus, the size of the curled lock is limited and unnecessary bending and burden is also loaded onto the wrist of the user due to the large size of the house. This makes the operation of the device quite difficult. Another disadvantage of this hair styler is that it cannot be used for pressing unique and selectable patterns into the hair, as it is suitable only for craping the curls, which will be uniform on the entire head.

[0004] The Japanese utility model No. JPHO444801U describes a device which uses two rotating heads to shape the hair. While rotation is performed manually.

[0005] The Chinese patent document No. CN101448427A describes a hair styler, which exploits the parallel movement of three rolls to curl the hair. This device can be used only for curling.

[0006] The Brazilian utility model No. BRMU8702850U2 is fitted with a roll driven by an engine, which transforms the straight surface of the hair.

[0007] The South-Korean patent document No. KR20010088269A and the USA patent document No. U.S. Pat. No. 5,823,204A describe hair straighteners that can press specific patterns into the hair. These devices can produce only one specific pattern into the hair.

[0008] The USA publication document No. U.S. Pat. No. 6,520,188B1 describes an invention, where various patterns can be placed onto heated rolls, thereby pressing unique patterns into the hair. The South-Korean patent document No. KR201 10007429A describes a device which can be used to produce patterns in the hair, possibly in a curly manner.

[0009] The Italian publication document No. ITMI20001837A1 and the British publication document No. GB2415624A describe inventions, where the positive and negative shapes placed onto the two parts of the hair styler represent the unique and consolidated pattern in the hair.

[0010] The South-Korean patent document No. KR100766871B1 and the USA patent document No. U.S. Pat. No. 4,739,151A describe devices that consist of hair straightener parts with positive and negative shapes.

[0011] The European publication document No. EP0940100A1 and the American publication document No. U.S. Pat. No. 2,910,988A describe a hair shaping device consisting of more than one rolls. The inventions are operated by two crossing levers with the main purpose of smoothening the hair. Only the European patent document No. EP0940100A1 is discussed below. The rolls have a removable cover, but the removable shells are used only to release paint. The device includes one electromotor only, meaning that the speed and rotation direction of the rolls cannot be regulated separately, as both rolls are driven by the same engine, so they rotate with the same revolutions per minute: while the document notes that the device is fit for using rolls of different sizes, doing so would require the replacement of the cog-wheels and the diameter would remain unaltered as well. The rolls are heatable, but there is only one heater in each roll, so either both or none of the rolls is heated. It is not possible to heat only a segment of the rolls, which could be used to produce unique hairstyles. Due to the design of the solution and the fix diameter of the cogwheels, it cannot follow the thickness of the lock and can shape the hair only if moved from the root toward the end of the hair, but not when moved in the opposite direction.

[0012] The invention described in the American publication document No. U.S. Pat. No. 2,062,561A is capable of straightening the hair only. Due to the limitations concerning the opening of the cone shaped rolls and the fix parameters of the cogwheels, the device can be used to press a lock of a given thickness, but it cannot be used to smoothen the hair. The device is not capable of producing patterns, as the rolls are not in a parallel position, and the patterns do not fit into each other. The lever can open the rolls to a given extent only, so it is not fit for using replaceable shells either. While the device does include an engine, the speed and rotation direction of the rolls cannot be regulated separately. Similarly, the heaters cannot be turned on in segments of a roll or in one roll only. In comparison to the inventions discussed above, this device can be used to straighten the hair by moving it from the root toward the end of the hair and by using a pressing technique only. It cannot be used for smoothing.

[0013] The American publication document No. U.S. Pat. No. 1,845,208A describes a solution for straightening hair. The device includes two rolls, and shells or patterns cannot be mounted due to the limited opening angle. The device works at a fix rotation speed and the direction of rotation is also constant. The device cannot follow the changes of the processed lock and can be used for straightening only when moving downward. The document does not provide detailed information regarding the operation and exact placement of the engine. Due to the connection of the cogwheels at the end of the rolls, the hair styler can be used in a closed position only and up to a certain lock thickness. Heating cannot be divided into segments or units, either.

[0014] The German utility model No. DE20104522U1 describes a hair shaping device consisting of two rolls. It includes an engine that drives only one of the rolls, and this driven roll rotates in turn the other roll. Only the driven roll includes a heater. Thus, this solution has numerous disadvantages, similarly to the solutions described above. The device can be used for pressing patterns only of a certain depth and width. It cannot be used for producing smaller, softer patterns, because the roll that is not driven by the engine can be turned by the patterns on the other roll, which is impossible, unless the change in the protrusion of the surface is significant

enough, so that the roll can rotate by holding onto the protrusions as a cogwheel. This means that the device cannot be operated with a flat cover, meaning that the roll is not fit for straightening and smoothening the hair. Also, the dependence between the rolls has a significant impact on the size limits of the processed lock, as the too thick locks would break the connection between the rolls. Another disadvantage is that the pattern is produced by the surface of the roll itself. This makes the roll bigger and significantly extends the period required for heating. Also, when replacing the rolls, the user needs to wait until the new roll heats up with the other cover. In contrast, the roll is already hot in our current solution, only the significantly smaller shell needs a few seconds to absorb the heat, and the user can start shaping the hair. Another disadvantage is that the speed and rotation direction cannot be set. The device can be used for producing patterns only, but it cannot be used for anything else. Only one of the rolls is heated, and only the entire roll can be heated, as the heater is not broken up in segments. In conclusion, it can be established that all known solutions have several disadvantages. None of the inventions can use the same rolls to straighten, curl, unify by pressing, and place patterns into the same lock, with the same rolls, with the same movement, and at the same time. The devices that include an electromotor include only one motor, which is used to drive the rolls through cogwheels, or the motor drives only one roll, which in turn rotates the other roll. This means that all known hair shaping devices rotate the two rolls at the same speed, and the speed cannot even be changed in most cases. The same is true for the rotation direction; the rotation direction of the rolls cannot be changed separately as both rolls depend on the single engine. Furthermore, none of the devices is capable of producing truly unique patterns, as the pattern density is also constant due to the constant rotation speed. Since the whole roll is heated, there is no variation during the width of the locks, meaning that the same thing is done to the entire lock, and the pattern always appears at the same frequency in both directions. Another important disadvantage is the destructive impact of the devices on the hair. Due to the limitations associated with the cogwheels, the devices cannot follow the changes in the thickness of a lock. Also, the process needs to be repeated multiple times to be truly effective. It is easy to see that being treated at high temperature several times is not good for the hair. All inventions can shape the hair in one direction—moving from the root toward the end of the hair—only.

[0015] The solutions representing the state of the art use a pressing technique only to straighten the hair; this means that the rotation per minute and the speed of both rolls is the same. This is disadvantageous because, When treating a lock of varying thickness (e.g. in the middle and at the end of the lock) and being forced to use the same pressure and heat level, one must be careful at the thinner parts, meaning that the expected result would not be realized at the thicker parts of the lock of, if adjusting to the thicker parts, damage would be caused to the thinner segments. This technique cannot follow the changes in thickness of the lock, and pressure needs to be applied longer at thicker parts, or the lock needs to be treated more times. This can cause damage to the hair.

SUMMARY OF THE INVENTION

[0016] The propose of the invention is to eliminate the disadvantages of known solutions and to develop a device, and the procedure for use, which is capable of smoothing,

pressing, curling the hair, of producing patterns, or even of doing of all these at the same time on locks of any constant or changing thickness. These processes do not need to be carried out in a downward direction as the device is operational in the opposite direction as well. Special waves can also be produced in the hair by varying these features. It is an important aspect that these tasks should be carried out without damaging the hair and in a manner that allows the shaping of the hair with due regard to the thickness of the processed lock. It is also a purpose of the invention that all given tasks can be carried out in a single process and without the need to move the hair shaping device down or up on a given lock more than once. It is also a purpose to produce truly unique patterns, regardless to the length or thickness of the hair of a person. The pattern is continuous and spatial, but the repetition and density can be changed for and within each lock. It is an important purpose that the efficiency should be increased without raising the temperature as it also damages the hair. Instead, the speed can be increased and can be set for each roll separately. The invention also aims to create a simple and efficient hand-held device, which can be operated easily manually, where each rotating roll is connected to an electromotor and both rolls are heated. There are at least two heating units in the rolls, which are insulated from each other and can be controlled separately. If a segment of the roll is not heated, that segment will not produce any pattern in the hair. The invention also aims to allow the user to carry out a task already performed on a lock on another lock in an identical manner, if necessary. To this end, the device can be programmed and it remembers to settings used earlier. As already noted, the rolls are driven by different electromotor so they are not dependent on each other. They can have different speed, direction, or rotation per minute. The purpose of this is to allow the user to create truly unique patterns in the hair and to make the device more efficient than the ones used before.

[0017] The invention is based on the recognition that it is advantageous that the speed, rotation direction, cover, and diameter of cover of the rolls of the hair styler can be set and regulated independently from each other. This recognition allows the user to set everything separately for a given task, so the hair shaping device can be used to shape any lock of any thickness, and it can adjust to changes within the lock. It can produce an unlimited number of unique hairstyles. The heater is also broken down into smaller segments, so certain locks can be left untreated by switching certain heating units on and off. The rolls follow any and all changes within a lock perfectly, so the device does not damage the structure of the hair by radiating too much heat onto a possibly thinner part. The rolls can be fitted with a cover or shell that can produce spatial patterns. Waves of different sizes can be produced by adding shells of different diameters that operate simultaneously. By changing the rotation speed of one of the rolls, the hair styler can perform multiple smoothing moves within one movement. Thus, unlike with other known solutions, the same lock does not need to be treated multiple times or at too high temperature, as it is sufficient to set the rotation speed only. When such thoroughness is not required, the rotation speed and direction of the rolls can be harmonized, meaning that the pressing technique will be applied. This way, the device can produce continuous, unique spatial patterns in the hair. A spatial pattern will appear on the hair, where the protruding, positive pattern fits into the inverted, negative pattern of the other roll. However, if one of the rolls is not rotating, no pattern will be produced on the hair. By switching the heater

cells on and off, pattern can be spared from, or placed at other parts of the lock. It is clear that several unique hairstyles can be produced by regulated these few functions.

[0018] The most general embodiment according to the invention is described among the characteristics of claim 1. The most general form of the procedure is described in claim 9. The various embodiments are described in the other Claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] The invention is described in detail by presenting preferable embodiments, in detail on drawings.

[0020] On the attached drawings,

[0021] FIG. 1 shows the longitudinal section of the device in a closed position.

[0022] FIG. 2 shows the side view of the device in an open position.

[0023] FIG. 3 shows the axonometric view of the rolls with smooth cover while smoothing a lock.

[0024] FIG. 4 shows a simplified cross-section of the rolls with smooth cover while smoothing a lock and indicating the rotation speed.

[0025] FIG. 5 shows a simplified cross-section of the rolls with smooth cover while smoothing a lock and indicating the rotation speed.

[0026] FIG. 6 shows a simplified cross-section of the rolls with smooth cover while pressing a lock and indicating the rotation speed.

[0027] FIG. 7 shows the axonometric view of the rolls with a cover capable of smoothing and separating a lock.

[0028] FIG. 8 shows a spatial drawing of the rolls with a cover capable of producing patterns, with a variously patterned lock.

[0029] FIG. 9 shows the axonometric view of the rolls rotating in opposite directions and consisting of separately heatable segments, with a cover capable of producing patterns, and the smoothed and patterned hair.

[0030] FIG. 10 shows the axonometric view of the rolls rotating in opposite directions and consisting of separately heatable segments, with the two segments at the ends being heated, with a cover capable of producing patterns, and the smoothed and patterned hair.

[0031] FIG. 11 shows the axonometric view of the rolls consisting of separately heatable segments with a cover capable of producing patterns, with the top roll featuring the protruding positive patterns being still, and the smoothed and patterned hair.

[0032] FIG. 12 shows the axonometric view of the rolls consisting of separately heatable segments with a holding component and a cover capable of producing patterns, with the top roll featuring the protruding positive patterns being still, and hair held to the rolls and to be smoothed, curled, and patterned by the device.

[0033] FIG. 13 shows the axonometric view of the rolls rotating in opposite directions and consisting of separately heatable segments with a holding component and a cover capable of producing patterns, and hair held to the rolls and to be smoothed, curled, and patterned by the device.

[0034] FIG. 14 shows the axonometric view of the rolled and patterned hair.

[0035] FIG. 15 shows the axonometric view of the rolls with smooth cover and a holding component, and the held lock to be curled.

[0036] FIG. 16 shows the axonometric view of the rolls with smooth cover and a holding component, and the held and curled lock.

[0037] FIG. 17 shows the axonometric view of the specially curled and waved hair.

DETAILED DESCRIPTION OF THE INVENTION

[0038] FIG. 1 shows the longitudinal section of the device in a closed position, where the primary roll 1 and the secondary roll 2 are in parallel position. The figure shows that the cable providing power goes through the end component 12 to the engine control unit 14. The engine control unit 14 is connected to the electromotor 3a driving the primary roll 1 and to the electromotor 3b driving the secondary roll 2 through the driving component 10.

[0039] The engine control unit 14 is also connected to the rotation sensors 15a and 15b. Under the cover 4, there is also the heating control unit 13, which is also connected to the primary roll 1 and the secondary roll 2. The section of primary roll 1 shows heating units 101, 102, and 103 controlled by heating control unit 13, which can be operated separately, so there is thermal insulation 111 and 112 between them. Covers 121, 122, and 123 producing continuous patterns are mounted onto the primary roll 1. The secondary roll 2 has a structure similar to that of the primary roll 1. Heating control unit 13 is connected to heating units 201, 202, and 203 that are separated by thermal insulation 211 and 212. Covers 221, 222, 223 can be mounted onto the secondary roll 2 from the outside.

[0040] Similarly to the previous figure, FIG. 2 shows the side view of the hair shaping device, but in an open position. Power is conducted inside cover 4 through the end component 12, and, entering the electromotor, it drives primary roll 1 and secondary roll 2 through driving, component 10. Covers 121, 122, and 123 are mounted onto the primary roll 1, and complementary covers 221, 222, 223 are mounted onto the secondary roll 2. FIG. 3 shows primary roll 1 and secondary roll 2 while smoothing a lock.

[0041] FIG. 4 shows a simple cross-section of primary roll 1 and secondary roll 2 rotating in opposite directions. The faster secondary roll 2 smoothens the hair on the same side, While the slower primary roll 1 only presses and drives the lock.

[0042] FIG. 5 shows an application method that is the opposite of that shown on the previous figure, where the faster primary roll 1 smoothens the hair on the same side, while the slower secondary roll 2 only presses and drives the lock.

[0043] FIG. 6 shows primary roll 1 and secondary roll 2 rotating in opposite directions. The movement of the rolls is harmonized, and they rotate at the same speed.

[0044] FIG. 7 shows primary roll 1 and secondary roll 2 with covers 121, 172, and 123 capable of separating the locks and with the separated and smoothed hair.

[0045] FIG. 8 shows primary roll 1 and secondary roll 2 fitted with covers 121, 122, and 123 producing patterns. The segments of the roll can be heated separately, allowing for the production of various patterns. Cover 122 shown on the figure as a next step leaves only a print on the hair.

[0046] FIG. 9 shows primary roll 1 and secondary roll 2 in a parallel, closed position. The rolls 1 and 2 are rotating in opposite directions and a lock is held between them. Covers 121, 122, 123 are mounted onto the primary roll 1 with protruding shapes. Covers 221 and 222 with negative, inverted shapes are mounted onto the secondary roll 2. Where positive covers 121, 122, and 123 and the negative covers 221

and 222 meet as the rolls 1 and 2 rotate, and all segments are heated, a spatial pattern will be produced in the hair. Similarly to the previous figures, FIG. 10 shows the primary roll 1 and the secondary roll 2 in a parallel, closed position. The rolls 1 and 2 are rotating in opposite directions and a lock is held between them. Covers 121, 122, 123, and 125 are mounted onto the primary roll 1 with protruding shapes. Covers 721, and 223 with negative, inverted shapes are mounted onto the secondary roll 2. In the step shown on the figure, the segments on each side are heated, meaning that only covers 121 and 125 leave a print, a spatial pattern in the hair.

[0047] FIG. 11 still shows the production of a patterned lock. The primary roll 1 and the secondary roll 2 is mounted with covers 121, 122, 123, 221, and 222 to produce the patterns. The primary roll 1 is still, it does not leave any print on the hair.

[0048] FIG. 12 shows still primary roll 1 and rotating secondary roll 2 in a parallel position. Covers 121, 122, and 123 are mounted onto the primary roll 1 with protruding shapes, and covers 221, 222, and 223 with negative, inverted shapes are mounted onto the secondary roll 2. A holding component 18 used to hold the lock is mounted onto the secondary roll 2.

[0049] FIG. 13 shows the continuation of the previous figure. The primary roll 1 and secondary roll 2 are rotating in opposite directions. The lock is held onto the secondary roll 2 by the holding component 18, so curling also forms part of the process. Covers 121, 122, and 123 are mounted onto the primary roll 1 to press spatial patterns into the curled hair. Cover 221 is mounted on the secondary roll 2, which is the opposite of covers 121, 122, and 123 that are mounted onto the primary roll 1.

[0050] FIG. 14 shows a smoothened and curled lock with spatial patterns.

[0051] FIG. 15 shows the placement of the lock in the open device. The primary roll 1 and the secondary roll 2 are in a parallel position, but the distance between them is bigger, so that the lock could be placed between them. The lock is held onto the rolls 1 and 2 by the holding component 18. After the lock is fixed, the rolls 1 and 2 start rolling, so a curly hairstyle will be achieved.

[0052] FIG. 16 shows the continuation of the previous figure. The primary roll 1 and the secondary roll 2 are in a parallel position, the device is in a closed position, and the lock is held between the rolls 1 and 2. The lock is also held onto the primary roll 1 and the secondary roll 2 by the holding component 18.

[0053] FIG. 17 shows the lock smoothened and curled by the device.

[0054] Another possible form of embodiment may be reached by using a form other than circle as the cross-section of the primary roll 1 and the secondary roll 2. Yet another possible form of embodiment may be reached if the covers consist of segments 5.

[0055] In the course of applying the invention, a cover 121, 122, 123 is chosen and mounted onto the primary roll 1 according to the desired outcome. A cover 221, 227, 223 is mounted onto the secondary roll 2. If a spatial pattern is to be produced on the hair, the cover 121, 122, 123 mounted onto the primary roll 1 and the cover 221, 222, 223 mounted onto the secondary roll 2 are complementary. The cover 121, 127, 173 has a positive, protruding shape, while the opposing cover 771, 222, 773 has a negative, inverted shape, or vice versa. The spares fit into each other and produce a spatial pattern when the lock is pressed between them. If the hair is to

be curled, the holding component 18 is mounted onto the primary roll 1 and/or the secondary roll 2. If a straight lock is to be shaped, the holding components 18 are removed from the primary roll 1 and the secondary roll 2. The hair shaping device is connected to a power source and the given heating units 101, 102, 103, 201, 202, 203 are turned on to warm up. Then a lock of any width and thickness is placed between the pre-heated rolls 1 and 2. After closing the rolls 1 and 2, the rolls 1 and 2 are driven by the electromotors 3a and 3b through the driving component 10, and the hair shaping process starts. The primary roll 1 is driven by the electromotor 3a, and the secondary roll 2 is driven by the electromotor 3b. The speed and rotation direction of the primary roll 1 and/or the secondary roll 2 can be changed, if necessary. In the course of application, the device is moved at an even pace from the root toward the end of the hair, or in the opposite direction, from the end toward the root of the hair. If some heating units 101, 102, 103, 201, 202, 203 of the rolls 1 and 2 are turned off arbitrarily, no pattern will be produced in the given area or band. If the rotation of the primary roll 1 or the secondary roll 2 is switched off, no pattern will be produced, but this applies to the width—i.e. a horizontal line—instead of a band of the lock. When producing a smoothened lock only, smooth covers 171, 177, 171, 771, 777, 273 are mounted onto the rolls 1 and 2. When producing smooth but curly locks, smooth covers 171, 177, 173, 271, 227, 221 and a holding component 18 are mounted onto the device. When producing a curly hairstyle, it is sufficient to mount the holding component 18 onto one of the rolls only, but, if necessary and a special wave is to be produced, a holding component 18 may be mounted onto both the primary roll 1 and the secondary roll 2.

[0056] The hair shaping device described above has numerous advantages. An advantage of the invention is that it can be used to smoothen, press, and curl the hair, or even produce a pattern in it, at the same time. The device has two rolls, both driven by an electromotor which can be regulated separately. Thus, the rolls can rotate at different speeds and even into opposite directions. The rolls also consist of segments that include separate heating cells that can be regulated individually. Special waves can be produced if the holding component of each shell mounted onto the rolls is hooked into the hair and is used simultaneously in the same or opposite directions in open position. To produce a spatial pattern, the covers with negative and positive shapes are to be mounted onto the rolls. Unique pattern can be produced in the hair this way, even different patterns within each lock. This is because no pattern is produced, only the lock is smoothened, if the top roll is not rotating. If the heating is turned off or on in certain segments, the patterns are produced on the lock in different layouts and with varying density. Where the heating is turned off, no pattern will be produced, where the heating is turned on, the pattern will be produced in the given band. Another advantage of the invention is that the rolls can adjust to any lock of any thickness, so they adjust to the thickness of the given lock, and the invention will not damage the structure of the hair even when treating thinner locks. This is a significant advantage, since the hair stylers known so far damage the hair, and their efficiency could be increased by raising their temperature only. In the case of this hair shaping device, it is enough to increase the speed, and—for example—while one roll is rotating slowly to drive the lock, the other roll rotates faster to smoothen the lock efficiently. This also means that the process can be completed with one move, it is not necessary to

move the device up and down multiple times. This solution spares the structure of the hair and accelerates the use of the device. Of course, the rolls can also rotate in a harmonized manner, together, at the same speed. The two rolls (primary and secondary) are equal and are not in ally forced connection. This also means that the size—even the relative size—of the rolls can be varied, and numerous waves of different shapes and sizes can be produced by the different shells that can be mounted onto the rolls. Another advantage of the device is that, unlike the other known solutions, it can be moved from the end toward the root of the hair. So it can wave, smoothen, and straighten the hair, and even produce patterns in it, while moving from the root toward the hair, or backwards. The device can also shape both the inside and outside of the locks without any additional move. The hair shaping device can also save a programmed move and early it out again and again for each lock. It can pattern the root and the end of a lock in the same process and phase, regardless to the length. of the lock.

[0057] In addition to the above examples, the invention can be embodied in other forms and with other production procedures within the scope of protection.

1. A hair shaping device for smoothening, pressing, and curling hair and other body hair, and for drawing patterns into hair and other body hair, comprising:

a house;

a primary roll and a secondary roll, both of which are heatable;

wherein the primary roll and the secondary roll are separately connected to an electromotor, the electromotors are connected to the primary roll and the secondary roll through a driving components;

wherein the primary roll are fitted with a plurality of primary covers, and the secondary roll are fitted with a plurality of secondary covers;

wherein the primary cover and the secondary cover are both capable of producing unique, repeated patterns, and consist of at least two segments; and

wherein each roll includes a plurality of heating units.

2. The hair shaping device according to claim 1, wherein a plurality of replaceable primary covers are mounted onto the primary roll and a plurality of replaceable secondary covers are mounted onto the secondary roll;

wherein the replaceable primary cover and the replaceable secondary cover are separately connected to the primary roll and the secondary roll a releasable manner.

3. The hair shaping device according to claim 1, wherein the diameter of the primary roll and the secondary roll is different, and the axis of the primary roll and the secondary roll are at least close to parallel.

4. The hair shaping device according to claim 1, wherein a plurality of holding components which are capable of holding the hair are mounted onto the primary cover and/or the secondary cover.

5. The hair shaping device according to claim 1, wherein the electromotor has an engine control unit, and the engine control unit is connected to the electromotors and a plurality of rotation sensors.

6. The hair shaping device according to claim 1, wherein the primary cover and the secondary cover which are complementary to each other and capable of producing patterns are separately mounted onto the primary roll and the secondary roll.

7. The hair shaping device according to claim 1, wherein the primary roll and the secondary roll are connected to a heating control unit which is capable of controlling the heating units.

8. A procedure for using the hair shaping device of claim 1, fitting a primary roll with a plurality of primary covers, and fitting a secondary roll with a plurality of secondary cover according to the hairstyle to be realized;

placing a lock to be shaped between the primary roll and the secondary rolls;

heating at least one segment of the primary roll and the secondary roll in advance and/or simultaneously;

driving the primary roll and the secondary roll at the same or different rotation speed and direction by each of the electromotors that are in forced connection with the primary roll and the second roll;

moving the device from the root toward the end of the hair, or toward the root of the hair, at an even pace.

9. The procedure according to claim 8, wherein the primary roll and the secondary roller are separated when inserting and removing the hair, with their axes remaining in a parallel position.

10. The procedure according to claim 8, wherein a plurality of primary covers are mounted onto the primary roll and a plurality of secondary covers are mounted onto the secondary roll; wherein the primary cover and the secondary cover are removed from the primary roll and the secondary roll after the hair styling process.

11. The procedure according to claim 9, wherein the primary cover and the secondary cover of different diameters are used for curling; wherein a holding component is fitted onto the primary cover and/or secondary cover, and the hair is placed into a plurality of holding components with the primary roll and the secondary roll rotating in an open position, without contact, in the same direction.

12. The procedure according to claim 9, wherein the primary cover and the secondary cover are smooth, which are mounted onto the primary roll and the secondary roll to smoothen the hair; wherein the lock is placed between the primary roll and secondary roll which are pre-heated; and wherein the primary roll and the secondary roll are rotating into the same or opposite directions, and, if necessary, the primary roll or the secondary roll is rotating faster than the other one.

13. The procedure according to claim 9, wherein the primary cover is patterned; when producing patterns in the hair, the patterned primary cover is mounted onto the primary roll and the secondary cover complementing the patterned primary cover is mounted onto the secondary roll; wherein the lock is placed between the primary roll and secondary roll which are pre-heated; wherein the primary roll and the secondary roll are rotating into the same or opposite directions at the same or different speeds, and, if necessary, the rotation speed and the operation of the heating units are adjusted while shaping.

14. The procedure according to claim 9, wherein the primary cover is patterned; when producing curly hair with patterns, the patterned primary cover is mounted onto the primary roll and the secondary cover complementing the patterned primary cover is mounted onto the secondary roll, and the holding component is mounted onto the primary roll and/or the secondary roll; wherein the lock is placed between the primary roll and secondary roll which are pre-heated, the end of the lock is fixed by the holding component; and

wherein the primary roll and the secondary roll are rotating into opposite directions at the same or different speeds, and, if necessary, the rotation speed and the operation of the heating units are adjusted while shaping.

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