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(54) **HAIR TREATMENT METHOD AND HAIR HOLDER**

(57) The present invention provides a hair treatment method for curling a lock of hair (H) using a hair holder (1). The hair holder (1) includes a tubular body (2) which has an opening (21) located at a first end of the tubular body and an opening (22) located at a second end of the tubular body, and which is configured to allow a lock of hair (H) to be inserted from the opening (21) toward the opening (22) and to be capable of being rolled up. The hair treatment method includes an insertion step of inserting a lock of hair (H) into the tubular body (2); a rolling-up step of rolling up the tubular body (2) together with the lock of hair (H) inserted in the tubular body (2) thereby

to form a roll-shaped, lock-of-hair holding body (3) in which the opening (22) is located on the center side roll-shaped, lock-of-hair holding body (3) of the roll-shaped, lock-of-hair holding body (3); a deforming step of deforming the tubular body (2) into a helix form by pulling out a portion of the lock-of-hair holding body (3), the portion being located on the center side, toward a lateral side of the lock-of-hair holding body (3); and a curling treatment step of performing a curling treatment of the lock of hair (H) while maintaining the tubular body (2) in the helix form.

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Description

Technical Field

[0001] The present invention relates to a hair treatment method and a hair holder.

Background Art

[0002] A method for imparting a curled shape to a lock of hair is known in which a lock of hair is inserted through a tubular body of a hair holder and the tubular body is then rolled up. For example, Patent Literature 1 discloses a method in which a lock of hair is inserted through a pocket portion of a hair holder including a tubular body and the hair holder is then rolled up.

[0003] As another method, a method that uses a hair iron including a substantially cylindrical, hair winding portion is known. For example, Patent Literature 2 discloses a hair iron including a pair of hair winding portions into which a portion around which a lock of hair is to be wound is divided. Patent Literature 2 also discloses a method for using the hair iron including a step of inserting a lock of hair between the pair of hair winding portions of the hair iron and a step of winding the lock of hair around an outer circumferential portion of the pair of hair winding portions. In this usage method, hair can be curled by sliding down the hair iron along the hair toward the end of the hair.

Citation List

Patent Literature

[0004]

Patent Literature 1 US 3255765A
Patent Literature 2 JP 2015-104448A

Summary of Invention

[0005] The present invention provides a hair treatment method for curling a lock of hair using a hair holder including a tubular body, the tubular body having: a first opening located at a first end of the tubular body; and a second opening located at a second end of the tubular body, and being configured to allow a lock of hair to be inserted from the first opening toward the second opening and to be capable of being rolled up. The method includes: an insertion step of inserting a lock of hair into the tubular body; a rolling-up step of rolling up the tubular body together with the lock of hair inserted in the tubular body thereby to form a roll-shaped, lock-of-hair holding body in which the second opening is located on the center side the roll-shaped, lock-of-hair holding body; a deforming step of deforming the tubular body into a helix form by pulling out a portion of the lock-of-hair holding body, the portion being located on the center side, toward a

lateral side of the lock-of-hair holding body; and a curling treatment step of performing a curling treatment of the lock of hair while maintaining the tubular body in the helix form.

[0006] Also, the present invention provides a hair holder including a tubular body which has: a first opening located at a first end of the tubular body; and a second opening located at a second end of the tubular body, and which is configured to allow a lock of hair to be inserted from the first opening toward the second opening. The tubular body is rolled up in a helix form in its natural state.

Brief Description of the Drawings

[0007]

FIGS. 1A and 1B are a front view and a rear view, respectively, showing an embodiment of a hair holder that is used in a hair treatment method of the present invention.

FIG. 2 is a perspective view showing the hair holder shown in FIGS. 1A and 1B in a state in which the hair holder is roll-shaped.

FIGS. 3A to 3D are explanatory diagrams sequentially illustrating a procedure for performing the hair treatment method of the present invention using the hair holder shown in FIGS. 1A and 1B.

FIGS. 4A and 4B are schematic diagrams showing states in which the hair treatment method illustrated in FIGS. 3A to 3D is applied to head hair.

FIG. 5 is a perspective view showing a state in which a tubular body shown in FIGS. 1A and 1B is maintained in a helix form.

FIG. 6 is an enlarged plan view showing another embodiment with respect to slits shown in FIG. 1A.

FIG. 7 is a perspective view showing an embodiment of the hair holder of the present invention and shows the hair holder in its natural state.

Detailed Description of Invention

[0008] Apart from the aforementioned curl shape, a helix shape is also commonly imparted to a lock of hair, and the ease of operation for winding a lock of hair into a helix has been in demand. The method disclosed in Patent Literature 1 is a method for winding a lock of hair into a roll, rather than winding a lock of hair into a helix. Moreover, with the method disclosed in Patent Literature 1, winding a lock of hair into a helix is difficult. The method disclosed in Patent Literature 2 can impart a helix shape to a lock of hair; however, since the diameter of the helix of the lock of hair is fixed by the diameter of the hair winding portions, the diameter of the helix cannot be adjusted, which leads to a low degree of flexibility in finishing the hairstyle.

[0009] Therefore, the present invention relates to a hair treatment method and a hair holder with which the above-described drawbacks of the related art can be eliminated.

[0010] Hereinafter, the hair treatment method of the present invention will be described based on preferred embodiments thereof, with reference to the drawings. The hair treatment method of the present invention is a hair treatment method for curling a lock of hair using a hair holder. "Curling" refers to imparting a particular shape to a lock of hair. "Curling" as used herein means imparting a helix shape to a lock of hair unless otherwise specified.

[0011] Moreover, the hair treatment method of the present invention is mainly applied to head hair.

[0012] FIGS. 1A and 1B show an embodiment of the hair holder that is used in the hair treatment method of the present invention. A hair holder 1 shown in FIGS. 1A and 1B includes a tubular body 2 which has an opening 21 located at a first end and an opening 22 located at a second end. The hair holder 1 is configured to allow a lock of hair H be inserted from an opening 21 located at a first end toward an opening 22 located at a second end. Specifically, the tubular body 2 includes two sheets 23A and 23B that are elongated in one direction, the two sheets serving as a first surface sheet 23A and a second surface sheet 23B, which will be described later, and has a flat shape in which the two sheets 23A and 23B are laid one on top of the other. The tubular body 2 has a pair of side joint portions 24 where the first surface sheet 23A and the second surface sheet 23B are joined to each other, and a tubular portion 26 that is located between the pair of side joint portions 24. Each of the pair of side joint portions 24 are formed by joining side edge portions of the two sheets 23A and 23B to each other along the extending direction along which the sheets 23A and 23B extend. The tubular portion 26 has, between the opening 21 located at the first end and the opening 22 located at the second end in a longitudinal direction X, a space into which the lock of hair H can be inserted. In the present embodiment, the side joint portions 24 are formed with sewing using a sewing thread.

[0013] The tubular body 2 of the present embodiment has the longitudinal direction X and a width direction Y that is orthogonal to the longitudinal direction X. The longitudinal direction X of the tubular body 2 is the same as the extending direction of the tubular portion 26 and corresponds to the direction in which the lock of hair H is inserted.

[0014] Opposite side edge portions of the tubular body 2 that extend along the longitudinal direction X are parallel to each other as shown in the present embodiment; however, the opposite side edge portions need not be parallel to each other. In that case, it is preferable that the opposite side edge portions extend gradually outward in the width direction Y from the opening 21 at the first end toward the opening 22 at the second end. In other words, it is preferable that, in a plan view, the tubular body 2 has a shape that widens toward the opening 22 at the second end.

[0015] The tubular body 2 is configured to be capable of being rolled up. Being configured to be capable of be-

ing rolled up means that the tubular body 2 can be wound into a roll shape as shown in FIG. 2. Such a configuration is preferably a configuration in which the tubular body 2 automatically rolls up, but may also be a configuration in which the tubular body 2 is manually rolled up. An example of the automatic rolling-up configuration is a configuration in which the tubular body 2 is wound in a roll shape in its natural state, and after stretching out the tubular body 2 and inserting a lock of hair H therein, the tubular body 2 rolls up together with the lock of hair H upon being released from the stretched state. Such a configuration can be realized in such a manner that either or both of the first surface sheet 23A and the second surface sheet 23B is made of a shape memory sheet that has preliminarily retained the state in which the hair holder 1 is rolled up. The shape memory sheet can be formed by bonding together films having different heat shrinkage rates or films having different tensions, for example. Moreover, the tubular body 2 may also return to its retained original roll shape when the sheets 23A and 23B constituting the tubular body 2 are heated. "In its natural state" as used herein means the state that the hair holder where no external force is applied is horizontally placed in the environment of temperature of 20°C and humidity of 40%.

[0016] A sheet that is located on the inside when the tubular body 2 is rolled up is also referred to as the first surface sheet 23A, and a sheet that is located on the outside when the tubular body 2 is rolled up is also referred to as the second surface sheet 23B.

[0017] After the lock of hair is inserted into the hair holder from the opening at the first end of the tubular body toward the opening at the second end thereof, the tubular body is rolled up together with the lock of hair, and thus, the hair holder is formed into a roll shape. In the following description, the tubular body that has been rolled up into a roll shape will also be referred to as a lock-of-hair holding body. The lock-of-hair holding body has a spiral cross-sectional shape in a radial direction that is orthogonal to the direction of the central axis of the roll. In the lock-of-hair holding body, the opening at the second end is located on the center side of the roll that has been rolled up. The center is on the central axis of the lock-of-hair holding body that is roll-shaped. In the following description, the center of the lock-of-hair holding body will also be referred to simply as the "center".

[0018] The lock-of-hair holding body 3 has an outer circumferential portion 31 and a portion 33 that is located nearer to the center than the outer circumferential portion 31. The portion 33 that is located nearer to the center will also be referred to as the "center-side portion 33". The outer circumferential portion 31 is a wound portion that is the farthest from the central axis in the tubular body 2 in a wound state, that is, a state in which it is rolled up into a roll, and is a portion that has the greatest roll diameter in the tubular body 2. The center-side portion 33 is a wound portion that is relatively near to the central axis compared with the outer circumferential portion 31,

and has a smaller roll diameter than the outer circumferential portion 31. The number of turns of the wound portion that constitutes the center-side portion 33 may be no more than one, or equal to one, or may be two or more. The center-side portion 33 of the lock-of-hair holding body 3 shown in FIG. 2 is constituted by a wound portion formed of three turns. Note that, in the present embodiment, the outer circumferential portion 31 is a wound portion of the tubular body 2 and does not contain an extended portion 4.

[0019] The hair treatment method of the present invention includes a step of forming a lock-of-hair holding body, a step of deforming the tubular body into a helix form, and a step of performing a curling treatment of the lock of hair. In the following description, the step of forming a lock-of-hair holding body will also be referred to as a rolling-up step, the step of deforming the tubular body into a helix as a deforming step, and the step of performing the curling treatment of the lock of hair as a curling treatment step.

[0020] A preferred embodiment of the hair treatment method of the present invention will be described taking a case where the hair treatment method is performed using the hair holder shown in FIGS. 1A and 1B as an example. FIGS. 3A to 3D illustrate the hair treatment method of the present embodiment.

[0021] In the present embodiment, an insertion step of inserting a lock of hair H into the tubular body 2 is performed at a stage prior to the rolling-up step. In this step, as illustrated in FIG. 3A, a lock of hair H is inserted between the two sheets 23A and 23B constituting the tubular body 2 from the opening 21 at the first end of the tubular body 2 toward the opening 22 at the second end. Thus, in the tubular body 2, the base side of the lock of hair H is located on the opening 21 side at the first end, and the hair end side of the lock of hair H is located on the opening 22 side at the second end. The operation of inserting the lock of hair H at the insertion step may be performed using an operator's hands, or may be performed using an elongated hair insertion tool for inserting a lock of hair H into the tubular body 2. An example of the hair insertion tool is a hair insertion tool having a locking portion that can lock the lock of hair H and an elongated, insertion tool main body that has a predetermined length. More specifically, in the hair insertion tool, the insertion tool main body is formed into an elongated plate-like shape, and an end portion thereof has a tapered shape so as to be easily inserted into the opening at the first end of the tubular body 2. Preferably, the insertion tool main body is formed of a hard synthetic resin sheet or the like. The locking portion is provided at one end of the insertion tool main body, formed into a ring shape that is longer than it is wide, and the lock of hair can be inserted through, and locked in, this ring.

[0022] In this step, it is sufficient that the lock of hair can be inserted into the tubular body, and the lock of hair need not penetrate the tubular portion 26. In other words, the leading end of the lock of hair need not protrude from

the opening at the second end of the tubular body.

[0023] In the rolling-up step, the tubular body 2 is rolled up together with the lock of hair inserted into the tubular body to form the lock-of-hair holding body. In this rolling-up step, as illustrated in FIG. 3B, the tubular body 2 is rolled up from the opening 22 at the second end toward the opening 21 at the first end along the longitudinal direction X. That is to say, the tubular body 2 is rolled up so that the opening 22 at the second end is positioned on the center side of the lock-of-hair holding body that is roll-shaped. Accordingly, the hair end side of the lock of hair H is located on the center side of the lock-of-hair holding body, and the base side thereof is located on the outer circumferential portion side of the lock-of-hair holding body. In this step, the lock-of-hair holding body may be formed by the aforementioned configuration in which the tubular body 2 automatically rolls up, or may be formed by the aforementioned configuration in which the tubular body 2 is manually rolled up. It is also possible that the lock-of-hair holding body is formed by rolling up the tubular body 2 using the automatic rolling-up configuration and then further performing a winding and tightening operation or an unwinding operation manually.

[0024] In the deforming step, as illustrated in FIG. 3C, the portion 33 of the lock-of-hair holding body 3 that is located on the center side is pulled out toward a lateral side of the lock-of-hair holding body 3 thereby to deform the tubular body 2 into a helix form.

[0025] The "lateral side of the lock-of-hair holding body" refers to an outward side of the lock-of-hair holding body 3 in the width direction Y of the tubular body 2, and the lateral side extends along the direction of the central axis of the lock-of-hair holding body 3. In the deforming step, the center-side portion is shifted from the outer circumferential portion of the lock-of-hair holding body toward the aforementioned lateral side by pulling out the center-side portion toward the lateral side of the lock-of-hair holding body, and thus, the tubular body 2 is deformed into a helix form. The center-side portion 33 is pulled out by holding, for example, the tubular portion 26, or either one of the side edge portions, near the opening 22 at the second end in the longitudinal direction X. Note that the hair holder 1 of the present embodiment has a winding and tightening tab 8, which will be described later, on the opening 22 side at the second end in the longitudinal direction X, and the center-side portion may also be pulled out by holding the winding and tightening tab 8.

[0026] In the deforming step of the present embodiment, as illustrated in FIG. 3C, the center-side portion 33 of the lock-of-hair holding body is constituted by wound portions that are formed by winding three turns the center-side portion of the tubular body 2, and these wound portions are pulled out toward the lateral side of the lock-of-hair holding body 3. The thus pulled-out wound portions of the center-side portion 33 are individually referred to as a first wound portion r1, a second wound portion r2, and a third wound portion r3 in descending order of distance from the outer circumferential portion 31. The

tubular body 2 that has been deformed into the helix form has a shape that tapers down as the distance from the outer circumferential portion 31 increases. That is to say, the length thereof in the radial direction decreases from the third wound portion r3 toward the first wound portion r1.

[0027] In the hair treatment method of the present embodiment, a winding and tightening operation or an unwinding operation, which will be described later, is performed in the deforming step. However, the procedure may also be advanced to the next curling treatment step without performing the aforementioned operation.

[0028] In the curling treatment step, a curling treatment of the lock of hair is performed while keeping the tubular body in the helix form. In this step, a fixing member 5 that can fix the tubular body in the helix form may be used. The fixing member 5 will be described later. When the tubular body is kept in the helix form, the lock of hair, which is held in the tubular body, is also kept in a helix form. The curling treatment of the lock of hair is performed in this state. The curling treatment is a treatment for imparting a helix shape to the lock of hair, and examples thereof include a treatment of allowing the tubular body in the helix form to stand for a predetermined period of time, a treatment of heating the tubular body, and an oxidation-reduction treatment that is performed with a permanent wave agent applied to the lock of hair from the outside of the tubular body.

[0029] As illustrated in FIG. 4A, the curling treatment step is completed by removing the lock of hair from the tubular body. For example, a helix shape such as that illustrated in FIG. 4B is imparted to the lock of hair removed from the tubular body. After the curling treatment step, the lock of hair that has been curled may be subjected to a post-treatment, if necessary. As the post-treatment, drying using a drying means such as a dryer, the application of a hair treatment agent, and other treatments can be performed alone or in a combination of two or more. Examples of the hair treatment agent that may be used in the post-treatment include a hair conditioning agent, a pre-hair-conditioning agent, a styling agent, a hair tonic agent, and the like.

[0030] According to the hair treatment method of the present embodiment, since the lock of hair can be set in a helix form by pulling out the center-side portion of the lock-of-hair holding body toward the lateral side of the lock-of-hair holding body, the operation of winding the lock of hair into a helix is straightforward. Due to this operation being straightforward, the finished quality of curling is unlikely to be affected by the skill of the operator, and the hair treatment time can be shortened.

[0031] According to the hair treatment method of the present embodiment, since the tubular body is deformed into a helix form after being rolled up together with the lock of hair inserted therein, the diameter of the helix of the lock of hair and the length of a single turn of the helix in the central axis direction can be adjusted. Specifically, the diameter of the helix of the lock of hair can be adjusted

by performing an operation of winding and tightening or unwinding the tubular body in the rolling-up step. The length of a single turn of the helix in the central axis direction is the length of a wound portion that corresponds to a single turn of the helix in the central axis direction, and can be adjusted in accordance with the extent to which the center-side portion of the lock-of-hair holding body is pulled out, that is, the extent to which the center-side portion is shifted from an outer circumferential portion-side portion. The length of a single turn of the helix in the central axis direction may be adjusted for each turn of the helix. Since the above-described adjustments are possible, the hair treatment method of the present embodiment provides a high degree of flexibility with respect to the helix shape that can be imparted to the lock of hair and makes it easy to curl the lock of hair into a desired form. Moreover, with the hair holder of the present embodiment, since the lock of hair is set in a helix form in a state in which tension is applied to the lock of hair through the aforementioned operation, a neat helix shape can be imparted to the lock of hair.

[0032] Compared with a method for curling a lock of hair by winding the lock of hair around a heated hair winding portion as in the case of a hair iron, the hair treatment method of the present embodiment is safe, and the handling of the hair holder is easy.

[0033] Moreover, according to the hair treatment method of the present embodiment, since the hair holder is deformed into a helix shape, an overlapping portion between the outer circumferential portion-side portion and the center-side portion of the lock-of-hair holding body is small compared with a case where the hair holder is wound into a roll shape. For this reason, according to the hair treatment method of the present embodiment, in a case where the lock of hair in the tubular body is to be dried, the drying time can be reduced to be shorter than that in the case of the hair holder wound into a roll shape. Furthermore, in a case where a treatment of applying a permanent wave agent to the lock of hair from the outside of the tubular body is performed as the curling treatment, the hair treatment method of the present embodiment makes it possible to more uniformly apply the permanent wave agent to the lock of hair compared with the case of the hair holder wound into a roll shape. Thus, the lock of hair can be finished into a neat helix shape.

[0034] In the hair treatment method of the present embodiment, in the deforming step, an operation of winding and tightening or unwinding a portion that is pulled out toward the lateral side of the lock-of-hair holding body is performed. In the following description, the winding and tightening operation or the unwinding operation will also be referred to as a winding adjustment operation. With this configuration, the roll diameter of the helix shape of the lock of hair can be made substantially uniform. In the present embodiment, after the tubular body 2 has been deformed into a helix form in the deforming step as illustrated in FIG. 3C, the tubular body 2 is unwound as illustrated in FIG. 3D to reduce the differences in roll diameter

of the various wound portions, namely, the first wound portion r1, the second wound portion r2, the third wound portion r3, and the outer circumferential portion 31. With this straightforward winding adjustment operation, the roll diameters of the wound portions of the lock of hair H in the tubular body 2 can be made substantially uniform, and the lock of hair H can be finished into an even neater helix shape.

[0035] The winding adjustment operation can be performed by holding, for example, a side edge portion of a wound portion that is the farthest from the outer circumferential portion 31, which is a portion located on the center side of the lock-of-hair holding body. This will be explained taking the present embodiment as an example. If the first wound portion r1 is unwound by holding a side edge portion of the first wound portion r1, the second wound portion r2 and the third wound portion r3 are unwound accordingly. Thus, the roll diameters of the first to third wound portions r1, r2, and r3 can be made closer to the roll diameter of the outer circumferential portion 31. Alternatively, the winding adjustment operation can also be performed by holding a side edge portion of each wound portion in the center-side portion, and in that case, it is possible to make a fine adjustment of the roll diameter of each wound portion. Note that, as described above, the hair holder 1 of the present embodiment has a winding and tightening tab 8, which will be described later, and the winding adjustment operation may also be performed by holding the winding and tightening tab 8.

[0036] In the deforming step, the length to which the center-side portion 33 is pulled out toward the lateral side of the lock-of-hair holding body 3 is not limited to a specific length. From the standpoint of even more reliably imparting a helix shape to the lock of hair, the helix height H10 of the tubular body 2 that has been deformed into a helix form is preferably not less than 1.2 times and more preferably not less than 1.3 times the width W2 of the tubular body 2 before being rolled up, is preferably not more than 1.7 times and more preferably not more than 1.5 times the width W2, and is preferably from 1.2 to 1.7 times and more preferably from 1.3 to 1.5 times the width W2.

[0037] The width W2 (see FIG. 1B) of the tubular body 2 is the minimum width of the tubular body 2 in the width direction Y in a plan view before the tubular body 2 is rolled up. The helix height H10 (see FIG. 3C) of the tubular body 2 is the maximum height of the tubular body 2 in the helix form in a state in which the helix tubular body 2 is placed with its central axis extending parallel to the vertical direction. Note that the width W2 and the helix height H10 of the tubular body 2 are the width and the height that do not contain an extended portion and a winding and tightening tab, which will be described later.

[0038] According to the hair treatment method of the present invention, the lock of hair may be partially curled, or the lock of hair may be entirely curled. In a case where the lock of hair is to be partially curled, a portion between the base and the hair end of the lock of hair which is arranged in the tubular body, that is, for example, a base-

side portion, a hair end-side portion containing the hair end, or an intermediate portion between a base-side portion and a hair end-side portion may be curled.

[0039] From the standpoint of making it easier to impart a helix shape to the lock of hair, in the hair treatment method of the present invention, it is preferable to curl the lock of hair in a state in which moisture is applied to the lock of hair in advance. In this case, the moisture is applied to the lock of hair at a stage preferably prior to the rolling-up step, or more preferably prior to the insertion step. Moreover, although water may be applied to the lock of hair, a styling agent containing water may also be applied. A commonly commercially available styling agent can be used as the styling agent. Examples of components contained in the styling agent other than water include silicone oil, alcohols having 1 to 4 carbon atoms (ethanol, propanol, isopropanol, tert-butyl alcohol, and 1,3-butylene alcohol), cationic polymers, various oil agents, and the like. An oil agent is used to improve the hair collectability after drying. Examples of the oil agent include hydrocarbons such as squalene, squalane, liquid isoparaffin, light liquid isoparaffin, heavy liquid isoparaffin, α -olefin oligomers, liquid paraffin, and cycloparaffin; glycerides such as castor oil, cacao oil, mink oil, avocado oil, and olive oil; waxes such as whale wax, lanolin, beeswax, microcrystalline wax, ceresin wax, and carnauba wax; esters such as octyldodecyl myristate, isopropyl myristate, isopropyl palmitate, hexyl laurate, cetyl lactate, propylene glycol monostearate, oleyl oleate, hexadecyl 2-ethylhexanoate, isononyl isononanoate, and tridecyl isononanoate; higher fatty acids such as capric acid, lauric acid, myristic acid, palmitic acid, stearic acid, behenic acid, oleic acid, palm oil fatty acid, isostearic acid, and isopalmitic acid; higher alcohols such as myristyl alcohol, cetyl alcohol, oleyl alcohol, stearyl alcohol, isostearyl alcohol, behenyl alcohol, 2-octyldodecanol, and cetostearyl alcohol; as well as isostearyl glyceryl ether, polyoxypropylene butylether, and the like. The method for applying moisture to the lock of hair is not limited to a specific method, and examples thereof include a method of spraying water or a styling agent onto the lock of hair using a spray or the like and a method of pouring running water over the lock of hair using a shower or the like. Moreover, it is also possible to wash hair before performing the hair treatment method and perform the above-described curling in a state in which the hair is not dried or is semi-dried.

[0040] From the standpoint of even more reliably imparting a helix shape to the lock of hair, it is preferable that, in the curling step, the lock of hair held in the helix tubular body is subjected to a permanent treatment. The permanent treatment is a treatment for curling by performing an oxidation-reduction treatment, and is usually performed using a permanent wave agent. Known permanent wave agents can be used as the permanent wave agent. For example, a two-component agent composed of a first agent containing a reducing agent and a second agent containing an oxidizing agent can be used. Here,

the reducing agent cleaves disulfide bonds of keratin that constitutes hair, and examples thereof include thioglycollic acid and derivatives thereof, thiolactic acid and derivatives thereof, cystein and derivatives thereof, and salts and the like of these agents. The oxidizing agent recombines the cleaved disulfide bonds of keratin in the hair, and examples thereof include potassium bromate, sodium bromate, sodium perborate, and hydrogen peroxide.

[0041] In the curling treatment step, the permanent wave agent can be injected into the tubular body via, for example, slits, which will be described later.

[0042] The hair holder 1 of the present embodiment has a plurality of slits 25 that are intermittently arranged in the second surface sheet 23B along the longitudinal direction X. Each of the slits 25 extends in the width direction Y. In the present embodiment, the slits penetrate the second surface sheet in its thickness direction. Even though the hair holder need not have a slit, it is preferable that the hair holder has a plurality of slits that are arranged in series, from the standpoint of smoothly rolling up the tubular body 2. It is sufficient that the slits are formed in one or the other surface constituting the tubular body 2, and although the slits may be formed in both of the surfaces, it is preferable that the slits are formed in the second surface sheet 23B, which is located on the outside when the tubular body 2 is rolled up. Moreover, as shown in FIG. 6, the slits may each have circular portions at both end portions thereof. The two end portions of each slit shown in FIG. 6 may be formed in a circular shape through punching, for example.

[0043] The hair holder 1 of the present embodiment has an extended portion 4 near an end portion of the opening 21 at the first end of the tubular body 2, the extended portion 4 being constituted by the first surface sheet 23A extending outward in the longitudinal direction X from the tubular body 2. The extended portion 4 is integrally formed with the first surface sheet 23A. Although the hair holder need not have the extended portion near the end portion of the opening at the first end, it is preferable that the hair holder has the extended portion, from the standpoint of making it easy to insert the lock of hair into the tubular body.

[0044] Moreover, it is preferable that the hair holder has the extended portion, because, as will be described later, if the hair holder 1 has a fixing member 5 that can maintain the tubular body in a helix shape, at least one, but not all, of the members constituting the fixing member 5 can be provided in the extended portion.

[0045] From the standpoint of making it easy to perform the curling operation, it is preferable that, in the curling treatment step, the tubular body of the hair holder is maintained in the helix form by a fixing means that maintains the tubular body in the helix form. Examples of the fixing means include a hair clip that fixes the tubular body by clamping the tubular body from both of the inside of a space in which the central axis is present and the outer circumferential portion side, of the tubular body in the

helix form, and a band member that fixes the tubular body by being wound around the outer circumferential portion or the like of the tubular body in the helix form, and the like.

[0046] As described above, the fixing means that maintains the tubular body 2 in a helix state may be separate from the hair holder. However, from the standpoint of improving the ease of the curling operation, it is preferable that the hair holder has the fixing means. For example, as shown in FIGS. 1A and 1B, the hair holder 1 of the present embodiment has the fixing member 5 that maintains the tubular body 2 in a helix form, and the fixing member 5 has a first member 5a and second members 5b that can be detachably joined together. The first member 5a and the second members 5b are provided at positions where, in the tubular body 2 in the helix form, the first member 5a partially opposes the second members 5b. For example, in the hair holder 1 of the present embodiment, the first member 5a is provided on an outer surface of the first surface sheet 23A, and the second members 5b are provided on an outer surface of the second surface sheet 23B. The "outer surfaces" means the surfaces on the opposite side to the surfaces that form the space into which the lock of hair can be inserted. When the tubular body 2 is deformed into a helix form, the outer surface of the first surface sheet 23A and the outer surface of the second surface sheet 23B partially oppose each other, and the first member 5a and the second members 5b that are located in the opposing portions can be joined together. In the present embodiment, the first member 5a is located in a portion on the outer surface of the first surface sheet 23A, the portion constituting the outer circumferential portion 31 of the tubular body 2 when the tubular body 2 is deformed into the helix form, and the second members 5b are located in a wound portion on the outer surface of the second surface sheet 23B, the wound portion being adjacent to the outer circumferential portion 31. The wound portion that is adjacent to the outer circumferential portion 31 is a wound portion contained in a portion of the helix tubular body 2 that is pulled out toward the lateral side of the lock-of-hair holding body 3, and is the closest to the outer circumferential portion 31. That is to say, this wound portion is the third wound portion r3 of the present embodiment. In the present embodiment, as shown in FIG. 5, the first member 5a is joined to the second members 5b in an overlapping portion between the third wound portion r3 and the outer circumferential portion 31. When the first member 5a and the second members 5b that are provided at the above-described positions are joined together, the tubular body 2 can be maintained in the helix form.

[0047] Any fastener can be suitably used as the fixing member 5. The fastener is a joint member, or a male and female member. The joint member, and the male and female member are constituted by a plurality of members that can be detachably joined to each other. Examples of the joint member include an adherend-selective pressure-sensitive adhesive tape, a magnet, and the like. Examples of the male and female member include a hook

and eye, a mechanical hook-and-loop fastener, and the like.

[0048] The adherend-selective pressure-sensitive adhesive tape is a pressure-sensitive adhesive tape that adheres only to a particular substance and substantially does not adhere to any other substances. The wording "substantially does not adhere" includes not only a case where the adherend-selective pressure-sensitive adhesive tape does not create an adhesion state with any substance other than the particular substance but also a case where, even though the adherend-selective pressure-sensitive adhesive tape creates an adhesion state with a substance other than the particular substance, the adhesion state quickly disappears if a slight relative movement occurs between that substance and the adherend-selective pressure-sensitive adhesive tape. Such an adherend-selective pressure-sensitive adhesive tape includes a tape base material and a self-adhesive agent applied to the tape base material, and the self-adhesive agent adheres only to a substance of the same kind and substantially does not adhere to other substances. That is to say, the self-adhesive agent has adhesiveness only to the self-adhesive agent itself.

[0049] As an example of the adherend-selective pressure-sensitive adhesive tape having the above-described configuration, a pressure-sensitive adhesive tape including a self-adhesive agent and a tape base material disclosed in JP 2007-167192A can be used.

[0050] As shown in FIGS. 1A and 1B, the hair holder 1 of the present embodiment has winding and tightening tabs 8 in the opposite side edge portions, respectively, of the tubular body 2, the winding and tightening tabs 8 being located near the opening 22 side at the second end. As shown in FIG. 1B, the winding and tightening tabs 8 extend outward in the width direction Y from the tubular body 2 and are integrally formed with the first surface sheet 23A, and each have a semicircular shape in a plan view. Due to the hair holder having the winding and tightening tabs, the tubular body can be rolled up easily, and tightly, if necessary, by rolling up the tubular body by holding the winding and tightening tabs with hands. Moreover, in the lock-of-hair holding body, the center-side portion can be pulled out toward the lateral side by holding a winding and tightening tab, so that the ease of operation of the deforming step is improved. The formation method, shape, size, thickness, arrangement, and the like of the winding and tightening tabs 8 can be set appropriately.

[0051] According to the hair holder of the above-described embodiment, the roll-shaped, lock-of-hair holding body 3 can be formed by winding the tubular body 2. However, from the standpoint of making it easy to wind a lock of hair into a helix, it is preferable that, in the hair holder, the tubular body is rolled up in a helix form when it is in its natural state. In the following description, this hair holder will also be referred to as a helix hair holder 1a. The helix hair holder can have a configuration similar to the configuration of the above-described hair holder

except that the tubular body has a helix form in its natural state. In the helix hair holder 1a, a tubular body 2a is wound into a helix in its natural state as shown in FIG. 7, and this helix form can be maintained without requiring the aforementioned fixing member included in the helix hair holder. The helix hair holder 1a is configured in such a manner that, after stretching out the tubular body 2a, the tubular body 2a automatically rolls up into the helix shape upon being released from the stretched state. This tubular body 2a can be obtained by using a shape memory sheet for either or both of the two sheets constituting the tubular body 2a and making the shape memory sheet retain a state in which it is rolled up into a helix. In order to make the shape memory sheet retain the state in which it is rolled up into a helix, for example, the shape memory sheet is rolled up into a helix, and the shape memory sheet is heated in this rolled-up state. A shape memory sheet having the same configuration as that described above, except for returning to its helix shape when it is heated, can be used as the shape memory sheet.

[0052] From the standpoint of even more reliably imparting a helix shape to a lock of hair, in the helix hair holder, the helix height of the tubular body in its natural state is preferably not less than 1.2 times and more preferably not less than 1.3 times the width of the tubular body before being rolled up, is preferably not more than 1.7 times and more preferably not more than 1.5 times the width of the tubular body before being rolled up, and is preferably from 1.2 to 1.7 times and more preferably from 1.3 to 1.5 times the width of the tubular body before being rolled up. The meaning of the helix height is as described above.

[0053] From the standpoint of making it easy for the tubular body to roll up into a helix form, it is preferable that the helix hair holder has a plurality of slits that extend in the width direction and are intermittently arranged along the longitudinal direction of the tubular body. From the same standpoint, it is preferable that the slits are formed in the second surface sheet.

[0054] A hair treatment method that uses the helix hair holder 1a includes an insertion step, a rolling-up step, and a curling step. In the insertion step, a lock of hair is inserted into the tubular body 2a that is in a stretched state. In the rolling-up step, the tubular body 2a is rolled up into a helix together with the lock of hair inserted in the tubular body 2a. The tubular body 2a automatically rolls up as described above. In the curling treatment step, the lock of hair is subjected to a curling treatment. The present hair treatment method can have a configuration similar to the configuration of the above-described hair treatment method illustrated in FIGS. 3A to 3D, except that the tubular body 2a is rolled up into a helix in the rolling-up step and the present hair treatment method does not include the above-described deforming step.

[0055] Now, materials for forming the various portions of the hair holder and the helix hair holder will be described.

[0056] Examples of the material for forming a sheet

constituting the tubular body include a nonwoven fabric (polyethylene nonwoven fabric, polyethylene terephthalate nonwoven fabric, or the like), a woven fabric, a net-like sheet, a porous or non-porous resin film (polyethylene film, polyethylene terephthalate film, or the like), paper, a polymer material sheet, a rubber sheet, a composite of these materials, or the like.

[0057] The thickness of each of the first surface sheet and the second surface sheet is preferably 5 μm or greater and more preferably 10 μm or greater, is preferably 2,000 μm or less and more preferably 1,500 μm or less, and is preferably from 5 to 2,000 μm and more preferably from 10 to 1,500 μm .

[0058] Preferably, a sheet that constitutes the tubular body is subjected to processing for improving the diffusibility of the hair treatment agent such as a permanent wave agent. Examples of this processing include, but are not limited to, embossing, calendering, resin film formation, and the like. For example, the embossing can improve the diffusibility by forming protrusions successively arranged in the longitudinal direction of the sheet and thereby allowing the hair treatment agent to flow along the protrusions. The calendering can improve the diffusibility of the hair treatment agent by adjusting the density of the sheet that constitutes the tubular body. The resin film formation can improve the diffusibility of the hair treatment agent by forming a resin film with low liquid absorbency partially or entirely on the sheet that constitutes the tubular body and thereby reducing the total liquid absorption amount of the sheet.

[0059] The dimensions and the like of the tubular body 2 can be appropriately determined in accordance with the length of hair, the section of hair that is desired to be curled, and the volume of a lock of hair to be inserted, but are preferably within the following ranges.

[0060] The length W2 (see FIG. 1B) of the tubular body 2 in the width direction Y is preferably 25 mm or greater and more preferably 30 mm or greater, is preferably 200 mm or less and more preferably 150 mm or less, and is preferably from 25 to 200 mm and more preferably from 30 to 150 mm.

[0061] The length L1 (see FIG. 1B) of the hair holder 1 in the longitudinal direction X is preferably 50 mm or greater and more preferably 100 mm or greater, is preferably 400 mm or less and more preferably 350 mm or less, and is preferably from 50 to 400 mm and more preferably from 100 to 350 mm. The length L1 of the hair holder 1 in the longitudinal direction X is the sum of the lengths of the extended portion 4 and the tubular body 2 in the longitudinal direction X.

[0062] The length L2 of the tubular body 2 in the longitudinal direction X is preferably 45 mm or greater and more preferably 90 mm or greater, is preferably 300 mm or less and more preferably 275 mm or less, and is preferably from 45 to 300 mm and more preferably from 90 to 275 mm. An end portion of the tubular body 2 of the present embodiment on the opening 21 side at the first end is curved into a concave shape curving inward in the

longitudinal direction X. In a case where the length of the tubular body 2 in the longitudinal direction X varies depending on the position in the width direction Y in this manner, it is preferable that the maximum length of the tubular body 2 in the longitudinal direction X is within the aforementioned range.

[0063] The length W22 (see FIG. 1B) in the width direction Y, of the opening 22 at the second end relative to the length W2 of the tubular body 2 in the width direction Y is preferably 40.0% or greater and more preferably 66.7% or greater, is preferably 97.5% or less and more preferably 96.7% or less, and is preferably from 40.0% to 97.5% and more preferably from 66.7% to 96.7%.

[0064] The length W22 (see FIG. 1B) in the width direction Y, of the opening 22 at the second end is preferably 10 mm or greater and more preferably 20 mm or greater, is preferably 195 mm or less and more preferably 145 mm or less, and is preferably from 10 to 195 mm and more preferably from 20 to 145 mm.

[0065] In the present embodiment, the length W22 in the width direction Y of the opening 22 at the second end is equal to the length in the width direction Y of the opening 21 at the first end. In the width direction Y, the length of the opening 22 at the second end and the length of the opening 21 at the first end may be equal to each other or may be different from each other.

[0066] Here, the slits extending in the width direction of the second surface sheet 23B means slits having a width of less than 3 mm. Also, the length W6 (see FIG. 1A) of the slits 25 in the width direction Y relative to the length W2 of the tubular body 2 in the width direction Y is preferably 40.0% or greater and more preferably 50.0% or greater, is preferably 90.0% or less and more preferably 80.0% or less, and is preferably from 40.0% to 90.0% and more preferably from 50.0% to 80.0%.

[0067] Moreover, the length W6 (see FIG. 1A) of the slits 25 in the width direction Y is preferably 10 mm or greater and more preferably 15 mm or greater, is preferably 180 mm or less and more preferably 120 mm or less, and is preferably from 10 to 180 mm and more preferably from 15 to 120 mm.

[0068] A method for producing the hair holder and the helix hair holder that are used in the hair treatment method of the present invention will be described. The tubular body of these hair holders can be formed by superposing two sheets one on top of the other and integrating side portions of the two sheets along their longitudinal direction. Alternatively, the tubular body of the hair holder can be formed by folding a single sheet into a rectangular shape in a plan view, and integrating side portions of the sheet that extend along its longitudinal direction and that overlap each other. A sheet for forming the tubular body can be produced from a raw material sheet by punching the raw material sheet into a predetermined shape.

[0069] Examples of the method for integrating sheets for forming the tubular body, that is, the method for forming the pair of side joint portions 24 include fusion bonding such as heat sealing or ultrasonic sealing, adhesion us-

ing an adhesive or the like, sewing, and the like.

[0070] The hair holder of the present invention is not limited to the foregoing embodiments, and appropriate changes can be made thereto without departing from the gist of the present invention.

[0071] For example, the shape and the surface of a sheet material that constitutes the "tubular body 2" may be a surface that has protrusions and depressions or may be a flat surface.

[0072] The present invention further discloses the following hair treatment methods.

<1> A hair treatment method for curling a lock of hair using a hair holder including a tubular body, the tubular body having: a first opening located at a first end of the tubular body; and a second opening located at a second end of the tubular body, and being configured to allow a lock of hair to be inserted from the first opening toward the second opening and to be capable of being rolled up, the method comprising:

an insertion step of inserting a lock of hair into the tubular body;

a rolling-up step of rolling up the tubular body together with the lock of hair inserted in the tubular body thereby to form a roll-shaped, lock-of-hair holding body in which the second opening is located on the center side of the roll-shaped, lock-of-hair holding body;

a deforming step of deforming the tubular body into a helix form by pulling out a portion of the lock-of-hair holding body, the portion being located on the center side, toward a lateral side of the lock-of-hair holding body; and

a curling treatment step of performing a curling treatment of the lock of hair while maintaining the tubular body in the helix form.

<2> The hair treatment method as set forth in clause <1>,

wherein, in the deforming step, the portion that is pulled out toward the lateral side of the lock-of-hair holding body is subjected to a winding and tightening operation or an unwinding operation.

<3> The hair treatment method as set forth in clause <1> or <2>, wherein, after the tubular body has been deformed into the helix form, the tubular body is unwound to reduce the difference in roll diameter between a portion, of the lock-of-hair holding body, located on the center side and an outer circumferential portion of the lock-of-hair holding body.

<4> The hair treatment method as set forth in clause <2>,

wherein, in the deforming step, the portion that is pulled out toward the lateral side of the lock-of-hair holding body is subjected to the winding and tightening operation or the unwinding operation, and the

winding and tightening operation or the unwinding operation is performed by holding a side edge portion of a wound portion that is the farthest from the outer circumferential portion and which is a portion located on the center side of the lock-of-hair holding body.

<5> The hair treatment method as set forth in any one of clauses <1> to <4>,

wherein, in the deforming step, a helix height of the tubular body that has been deformed into the helix form is not less than 1.2 times a width of the tubular body before being rolled up.

<6> The hair treatment method as set forth in clause <5>,

wherein the helix height of the tubular body that has been deformed into the helix form is not less than 1.2 times and preferably not less than 1.3 times, is preferably not more than 1.7 times and more preferably not more than 1.5 times, and is preferably from 1.2 to 1.7 times and more preferably from 1.3 to 1.5 times the width of the tubular body before being rolled up.

<7> The hair treatment method as set forth in any one of clauses <1> to <6>,

wherein a hair end-side portion which is arranged in the tubular body is curled.

<8> The hair treatment method as set forth in any one of clauses <1> to <7>,

wherein the lock of hair is curled in a state in which moisture is applied to the lock of hair in advance.

<9> The hair treatment method as set forth in any one of clauses <1> to <8>,

wherein moisture is applied to the lock of hair at a stage prior to the rolling-up step or prior to the insertion step.

<10> The hair treatment method as set forth in clause <8> or <9>,

wherein a styling agent containing water is used as the moisture applied to the lock of hair, the styling agent contains silicone oil, an alcohol having 1 to 4 carbon atoms, a cationic polymer, and an oil agent as components other than water, and the alcohol having 1 to 4 carbon atoms is one or two or more alcohols selected from ethanol, propanol, isopropanol, tert-butyl alcohol, and 1,3-butylene alcohol.

<11> The hair treatment method as set forth in clause <10>,

wherein the oil agent includes a hydrocarbon, a glyceride, a wax, an ester, a higher fatty acid, a higher alcohol, isostearyl glyceryl ether, and polyoxypropylene butylether,

the hydrocarbon is one or two or more hydrocarbons selected from squalene, squalane, liquid isoparaffin, light liquid isoparaffin, heavy liquid isoparaffin, an α -olefin oligomer, liquid paraffin, and cycloparaffin, the glyceride is one or two or more glycerides selected from castor oil, cacao oil, mink oil, avocado oil, and olive oil,

the wax is one or two or more waxes selected from whale wax, lanolin, beeswax, micro crystalline wax, ceresin wax, and carnauba wax,

the ester is one or two or more esters selected from octyldodecyl myristate, isopropyl myristate, isopropyl palmitate, hexyl laurate, cetyl lactate, propylene glycol monostearate, oleyl oleate, hexadecyl 2-ethylhexanoate, isononyl isononanoate, and tridecyl isononanoate,

the higher fatty acid is one or two or more higher fatty acids selected from capric acid, lauric acid, myristic acid, palmitic acid, stearic acid, behenic acid, oleic acid, palm oil fatty acid, isostearic acid, and isopalmitic acid, and

the higher alcohol is one or two or more higher alcohols selected from myristyl alcohol, cetyl alcohol, oleyl alcohol, stearyl alcohol, isostearyl alcohol, behenyl alcohol, 2-octyldodecanol, and cetostearyl alcohol.

<12> The hair treatment method as set forth in any one of clauses <1> to <11>,

wherein, in the curling treatment step, the lock of hair held in the tubular body in the helix form is subjected to a permanent treatment.

<13> The hair treatment method as set forth in clause <12>,

wherein, in the permanent treatment, curling is performed through an oxidation-reduction treatment, and a permanent wave agent is used.

<14> The hair treatment method as set forth in any one of clauses <1> to <13>,

wherein the hair holder has a plurality of slits that are intermittently arranged along a longitudinal direction of the tubular body.

<15> The hair treatment method as set forth in clause <14>,

wherein the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body

the slits are formed in the second surface sheet.

<16> The hair treatment method as set forth in clause <14> or <15>,

wherein, in the curling treatment step, a permanent wave agent is injected into the tubular body via the slits.

<17> The hair treatment method as set forth in any one of clauses <14> to <16>,

wherein the tubular body has the longitudinal direction and a width direction that is orthogonal to the longitudinal direction,

the length of the slits in the width direction relative to the length of the tubular body in the width direction is preferably 40.0% or greater and more preferably 50.0% or greater, is preferably 90.0% or less and more preferably 80.0% or less, and is preferably from

40.0% to 90.0% and more preferably from 50.0% to 80.0%.

<18> The hair treatment method as set forth in any one of clauses <1> to <17>,

wherein the hair holder has a fixing means that maintains the tubular body in the helix form.

<19> The hair treatment method as set forth in clause <18>,

wherein the hair holder has a fixing member as the fixing means, the fixing member is a joint member, or a male and female member, and the joint member, and the male and female member are constituted by a plurality of members that can be detachably joined to each other.

<20> The hair treatment method as set forth in clause <19>,

wherein the joint member is an adherend-selective pressure-sensitive adhesive tape or a magnet.

<21> The hair treatment method as set forth in clause <19>,

wherein the male and female member is a hook and eye or a mechanical hook-and-loop fastener.

<22> The hair treatment method as set forth in any one of clauses <19> to <21>,

wherein the hair holder has a fixing member as the fixing means, the fixing member is a joint member, or a male and female member, and the joint member, and the male and female member are constituted by a first member and a second member that can be detachably joined to each other, and

the first member and the second member are provided at positions in the tubular body in the helix form where the first member and the second member partially oppose each other.

<23> The hair treatment method as set forth in any one of clauses <19> to <22>,

wherein the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body, and

the hair holder has an extended portion near an end portion of the first opening of the tubular body, the extended portion being constituted by the first surface sheet extending outward in the longitudinal direction of the tubular body from the tubular body, and being integrally formed with the first surface sheet, and at least one, but not all, of the members constituting the fixing member is provided in the extended portion.

<24> The hair treatment method as set forth in any one of clauses <1> to <23>,

wherein the hair holder has winding and tightening tabs in opposite side edge portions, respectively, of the tubular body, the winding and tightening tabs being located near the second opening side.

<25> The hair treatment method as set forth in any

one of clauses <1> to <24>, wherein the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body, and

the first surface sheet and the second surface sheet included in the tubular body are subjected to processing for improving diffusibility of a permanent wave agent, and the processing is embossing, calendering, or resin film formation.

<26> The hair treatment method as set forth in any one of clauses <1> to <25>, wherein the tubular body has a longitudinal direction and a width direction that is orthogonal to the longitudinal direction,

the length of the second opening in the width direction relative to the length of the tubular body in the width direction is preferably 40.0% or greater and more preferably 66.7% or greater, is preferably 97.5% or less and more preferably 96.7% or less, and is preferably from 40.0% to 97.5% and more preferably from 66.7% to 96.7%.

<27> A hair holder including a tubular body which has: a first opening located at a first end of the tubular body; and a second opening located at a second end of the tubular body, and which is configured to allow a lock of hair to be inserted from the first opening toward the second opening, wherein the tubular body is rolled up in a helix form in its natural state.

<28> The hair holder as set forth in clause <27>, wherein a helix height of the tubular body in its natural state is from 1.2 to 1.7 times a width of the tubular body before being rolled up.

<29> The hair holder as set forth in clause <27> or <28>,

wherein the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body,

the hair holder has a plurality of slits, the slits extending in a width direction that is orthogonal to a longitudinal direction of the tubular body and being intermittently arranged along the longitudinal direction, and

the slits are formed in the second surface sheet.

Industrial Applicability

[0073] According to the present invention, a hair treatment method is provided which makes it easy to wind a lock of hair into a helix and makes it possible to adjust the diameter of the helix of the lock of hair and the length of a single turn of the helix in the central axis direction.

Also, according to the present invention, a hair holder with which a lock of hair can be easily wound into a helix is provided.

Claims

1. A hair treatment method for curling a lock of hair using a hair holder including a tubular body, the tubular body having: a first opening located at a first end of the tubular body; and a second opening located at a second end of the tubular body, and being configured to allow a lock of hair to be inserted from the first opening toward the second opening and to be capable of being rolled up, the method comprising:

an insertion step of inserting a lock of hair into the tubular body;

a rolling-up step of rolling up the tubular body together with the lock of hair inserted in the tubular body thereby to form a roll-shaped, lock-of-hair holding body in which the second opening is located on the center side of the roll-shaped, lock-of-hair holding body;

a deforming step of deforming the tubular body into a helix form by pulling out a portion of the lock-of-hair holding body, the portion being located on the center side, toward a lateral side of the lock-of-hair holding body; and

a curling treatment step of performing a curling treatment of the lock of hair while maintaining the tubular body in the helix form.

2. The hair treatment method according to claim 1, wherein, in the deforming step, the portion that is pulled out toward the lateral side of the lock-of-hair holding body is subjected to a winding and tightening operation or an unwinding operation.

3. The hair treatment method according to claim 1 or 2, wherein, in the deforming step, a helix height of the tubular body that has been deformed into the helix form is not less than 1.2 times a width of the tubular body before being rolled up.

4. The hair treatment method according to any one of claims 1 to 3, wherein a hair end-side portion which is arranged in the tubular body is curled.

5. The hair treatment method according to any one of claims 1 to 4, wherein the lock of hair is curled in a state in which moisture is applied to the lock of hair in advance.

6. The hair treatment method according to any one of claims 1 to 5,

wherein moisture is applied to the lock of hair at a stage prior to the rolling-up step or prior to the insertion step.

7. The hair treatment method according to any one of claims 1 to 6,
wherein, in the curling treatment step, the lock of hair held in the tubular body is subjected to a permanent treatment. 5
8. The hair treatment method according to any one of claims 1 to 7,
wherein the hair holder has a plurality of slits that are intermittently arranged along a longitudinal direction of the tubular body,
the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body, and
the slits are formed in the second surface sheet. 10
9. The hair treatment method according to any one of claims 1 to 8,
wherein the hair holder has a fixing means that maintains the tubular body in the helix form. 15
10. The hair treatment method according to claim 9,
wherein the hair holder has a fixing member as the fixing means, the fixing member is a joint member, or a male and female member, and the joint member, and the male and female member are constituted by a plurality of members that can be detachably joined to each other. 20
11. The hair treatment method according to claim 10,
wherein the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body, and
the hair holder has an extended portion near an end portion of the first opening of the tubular body, the extended portion being constituted by the first surface sheet extending outward in the longitudinal direction of the tubular body from the tubular body, and being integrally formed with the first surface sheet, and at least one, but not all, of the members constituting the fixing member is provided in the extended portion. 25
12. The hair treatment method according to any one of claims 1 to 11,
wherein the hair holder has winding and tightening tabs in opposite side edge portions, respectively, of the tubular body, the winding and tightening tabs be- 30

ing located near the second opening side.

13. A hair holder including a tubular body which has: a first opening located at a first end of the tubular body; and a second opening located at a second end of the tubular body, and which is configured to allow a lock of hair to be inserted from the first opening toward the second opening,
wherein the tubular body is rolled up in a helix form in its natural state. 35
14. The hair holder according to claim 13,
wherein a helix height of the tubular body in its natural state is from 1.2 to 1.7 times a width of the tubular body before being rolled up. 40
15. The hair holder according to claim 13 or 14,
wherein the tubular body has a first surface sheet and a second surface sheet, and when the tubular body is rolled up, the first surface sheet is located on the inside of the tubular body and the second surface sheet is located on the outside of the tubular body,
the hair holder has a plurality of slits, the slits extending in a width direction that is orthogonal to a longitudinal direction of the tubular body and being intermittently arranged along the longitudinal direction, and
the slits are formed in the second surface sheet. 45

FIG. 1A

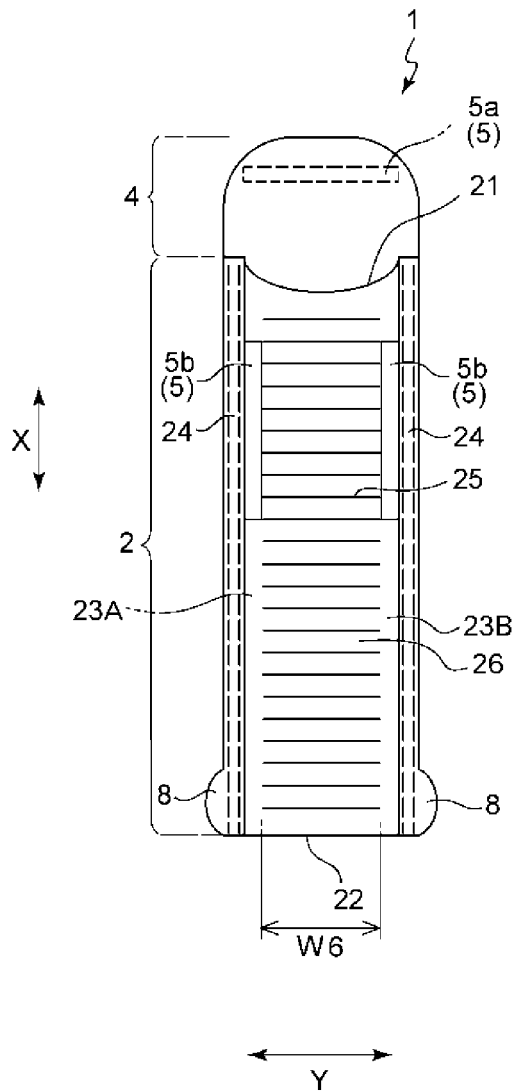


FIG. 1B

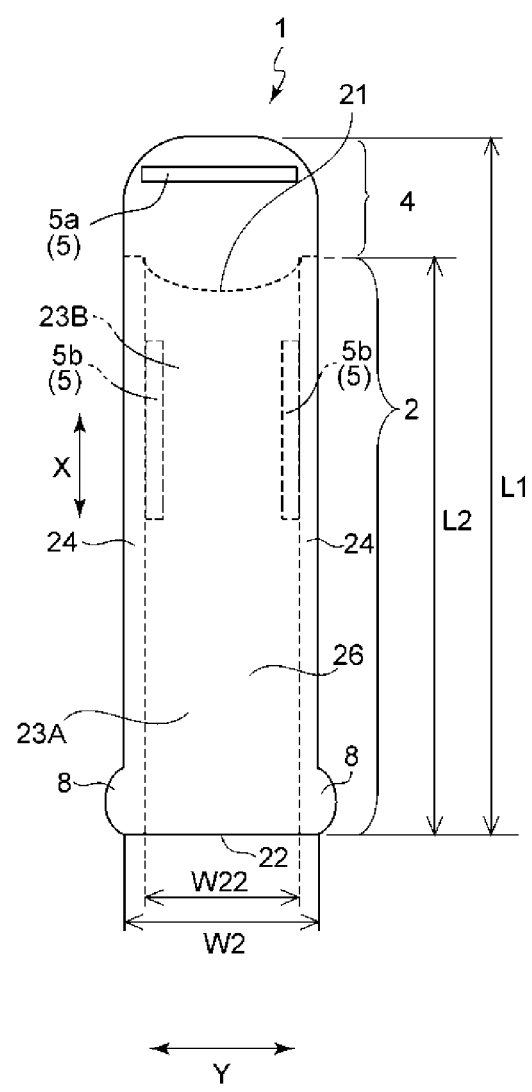


FIG. 2

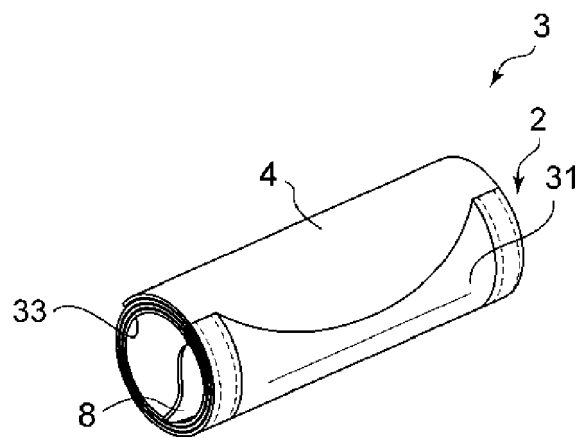


FIG. 3D

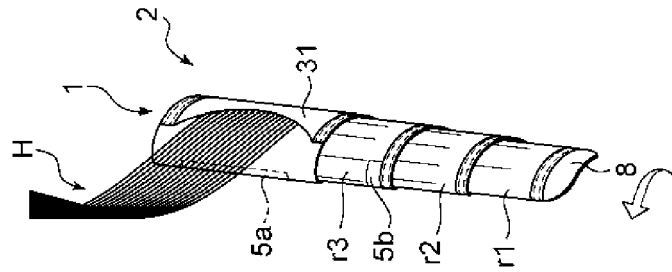


FIG. 3C

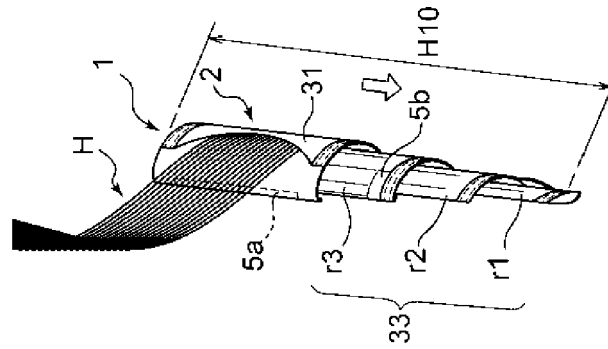


FIG. 3B

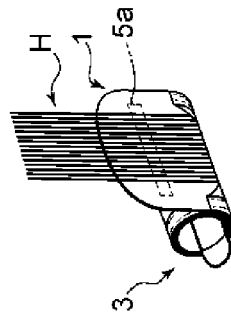


FIG. 3A

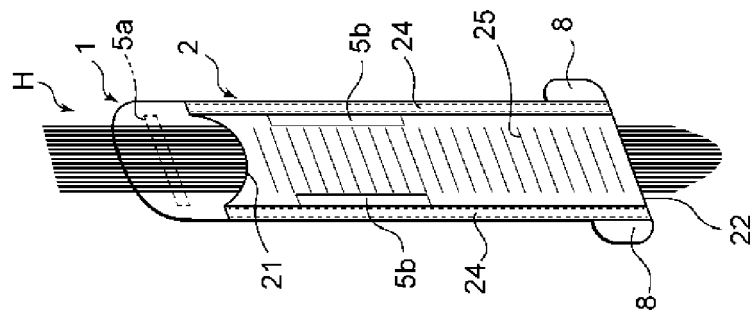


FIG. 4A

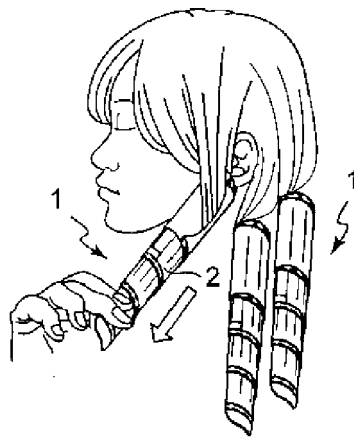


FIG. 4B



FIG. 5

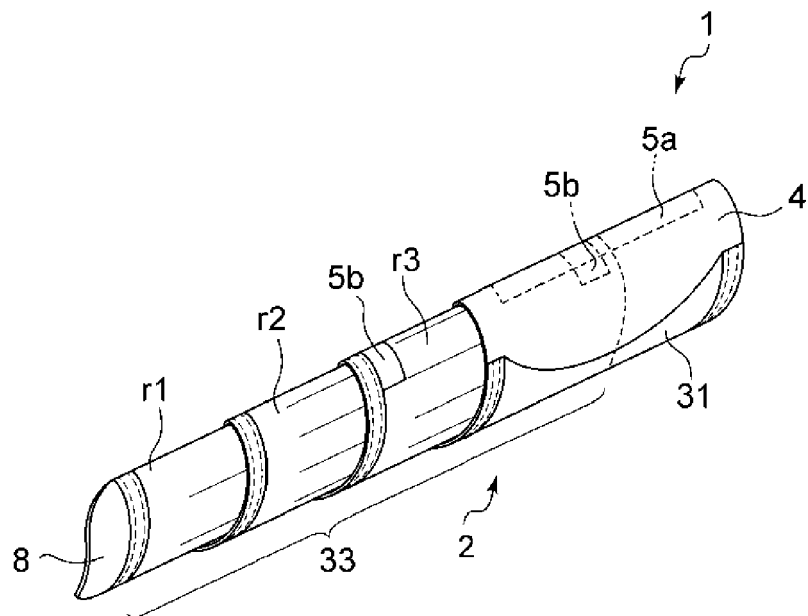


FIG. 6

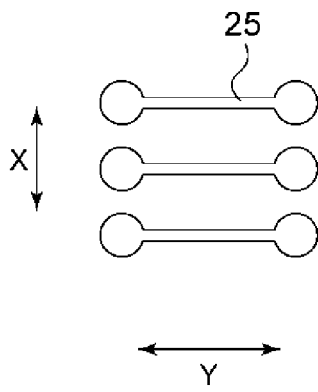
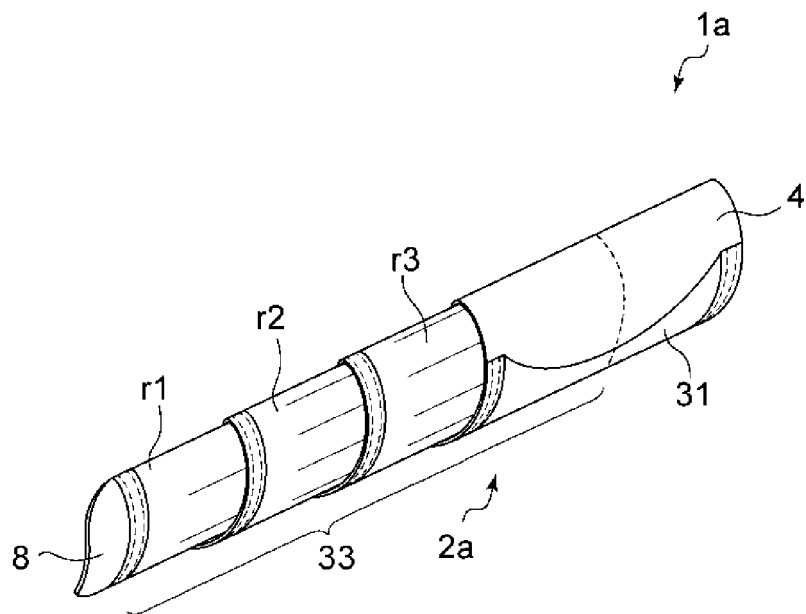


FIG. 7





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			A45D
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The Hague		1 August 2019	Fidalgo Marron, B
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