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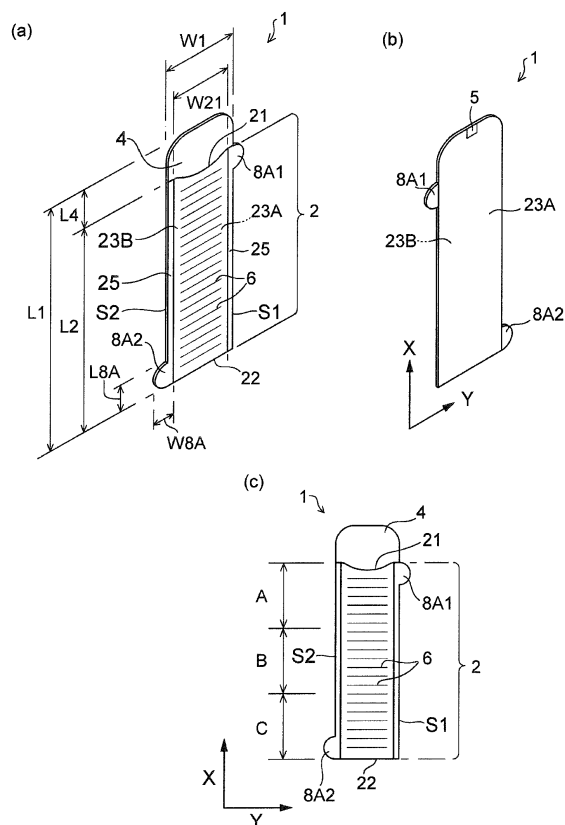
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(54) **HAIR HOLDER**

(57) The present invention relates to a hair holder with which an operation for adjusting the roll diameter can be easily performed. A hair holder (1) includes a tubular body (2) which includes a sheet (23A, 23B) and into which a bundle of hair can be inserted from an opening (21) at one end toward an opening (22) at the other end. The tubular body (2) is capable of being rolled up, and has a first winding and tightening tab (8A1) on one side edge of the tubular body (2) and a second winding and tightening tab (8A2) on the other side edge of the tubular body (2). The first winding and tightening tab (8A1) is disposed only in an end portion region (A) on the opening (21) side at one end, and the second winding and tightening tab (8A2) is disposed only in an end portion region (C) on the opening (22) side at the other end.

Fig. 1



Description

Technical Field

5 **[0001]** The present invention relates to a hair holder used in winding a bundle of hair into a predetermined shape, and a hair treatment method using the same.

Background Art

10 **[0002]** A hair holder including a flat tubular body which is constituted by a sheet and into which a bundle of hair can be inserted from an opening at one end toward an opening at the other end is known (see Patent Literature 1, for example). Patent Literature 1 states that, with the hair holder disclosed therein, the operation for winding a bundle of hair can be easily performed.

15 **[0003]** Moreover, the inventor of the present invention has previously proposed a hair holder having a tubular body that can be wound in a state in which a bundle of hair has been inserted as well as winding and tightening tabs individually extending outward in a width direction of the tubular body from respective positions in opposite side edge portions of the tubular body that are located near one end portion of the side edge portions in a longitudinal direction (Patent Literature 2).

20 Citation List

Patent Literature

[0004]

25 Patent Literature 1: US 3255765A
Patent Literature 1: JP 2004-209237A

Summary of Invention

30 **[0005]** The present invention provides a hair holder including a tubular body which includes a sheet and into which a bundle of hair can be inserted from an opening at one of opposite ends of the tubular body toward an opening at the other end, wherein the tubular body is capable of being rolled up, and has a first winding and tightening tab on one of opposite side edges of the tubular body and a second winding and tightening tab on the other side edge of the tubular body, the first winding and tightening tab is disposed only in an end portion region on the opening side at the one end, and the second winding and tightening tab is disposed only in an end portion region on the opening side at the other end.

35 **[0006]** The present invention also provides a hair holder including a tubular body which includes a sheet and into which a bundle of hair can be inserted from an opening at one of opposite ends of the tubular body toward an opening at the other end, wherein the tubular body is capable of being rolled up, and has a first winding and tightening tab on one of opposite side edges of the tubular body and a second winding and tightening tab on the other side edge of the tubular body, a length, in a width direction, of the first winding and tightening tab increases from the opening side at the one end toward the opening side at the other end, and a length, in the width direction, of the second winding and tightening tab decreases from the opening side at the one end toward the opening side at the other end.

40 **[0007]** The present invention also provides a hair treatment device including the hair holder wherein the tubular body is wound in a roll shape in a natural state, and an elongated hair insertion tool for inserting a bundle of hair into the tubular body.

45 **[0008]** Furthermore, the present invention provides a hair treatment method for performing hair treatment on a bundle of hair by using the hair holder, the method including rolling up the tubular body together with the bundle of hair inserted into the tubular body.

50 Brief Description of Drawings

[0009]

55 **[FIG. 1]** FIG. 1(a) is a perspective view of an embodiment of a hair holder of the present invention when viewed from a front side, FIG. 1(b) is a perspective view of the hair holder shown in FIG. 1(a) when viewed from a rear side, and FIG. 1(c) is a front view of the hair holder shown in FIG. 1(a).
[FIG. 2] FIG. 2 is a perspective view showing a state in which the hair holder shown in FIG. 1 has been wound into

a roll shape.

[FIG. 3] FIGS. 3(a) to 3(c) are perspective views sequentially illustrating a manner in which the hair holder shown in FIG. 1 is manually wound.

[FIG. 4] FIGS. 4(a) to 4(c) are front views (corresponding to FIG. 1(c)) respectively showing variations of the hair holder according to the first embodiment of the present invention.

[FIG. 5] FIGS. 5(a) to 5(c) are front views (corresponding to FIG. 1(c)) respectively showing other embodiments of the hair holder of the present invention.

[FIG. 6] FIG. 6 is a front view showing a state in which the hair holder shown in FIG. 5(a) has been wound into a roll shape.

[FIG. 7] FIGS. 7(a) to 7(c) are front views (corresponding to FIG. 1(c)) respectively showing yet other embodiments of the hair holder of the present invention.

[FIG. 8] FIGS. 8(a) and 8(b) are front views (corresponding to FIG. 5(a)) respectively showing yet other embodiments of the hair holder of the present invention.

[FIG. 9] FIGS. 9(a) to 9(c) are perspective views sequentially illustrating procedures for imparting a curl to a bundle of hair by using the hair holder shown in FIG. 1.

Description of Embodiments

[0010] Hair holders such as those disclosed in Patent Literature 1 and Patent Literature 2 described above are required to be able to facilitate rolling-up a bundle of hair and adjusting the roll diameter thereof. However, Patent Literature 1 does not disclose a configuration, such as that disclosed in Patent Literature 2 which includes winding and tightening tabs, with which the operation for winding a bundle of hair is facilitated. On the other hand, the hair holder disclosed in Patent Literature 2 makes it possible to wind the tubular body while holding the winding and tightening tabs, but there has been room for improvement in the operation for adjusting the roll diameter of the bundle of hair.

[0011] The present invention relates to a hair holder, a hair treatment device, and a hair treatment method using them, with which the above-described drawbacks of the related art can be eliminated.

[0012] Hereinafter, a hair holder of the present invention will be described based on preferred embodiments thereof with reference to the drawings. FIGS. 1(a) to 1(c) show an embodiment of the hair holder of the present invention. A hair holder 1 shown in these drawings has a tubular body 2 which includes sheets 23A and 23B and into which a bundle of hair (not shown) can be inserted from an opening 21 at one end toward an opening 22 at the other end. A longitudinal direction X of the hair holder 1 extends in the up-down direction in the paper plane of FIGS. 1(a) to 1(c), and a width direction Y of the hair holder 1 is orthogonal to the longitudinal direction X.

[0013] The hair holder 1 includes the tubular body 2 which includes the sheets and into which a bundle of hair can be inserted from the opening 21 at one end toward the opening 22 at the other end. The tubular body 2 is formed by bonding together the first surface sheet 23A which is located on the inside when the hair holder 1 and the second surface sheet 23B which is located on the outside when the hair holder 1 is rolled up, and is configured such that a bundle of hair can be inserted between the first surface sheet 23A and the second surface sheet 23B along the longitudinal direction X of the tubular body 2. The bundle of hair is inserted from the opening 21 at one end of the tubular body 2 toward the opening 22 at the other end. The first surface sheet 23A and the second surface sheet 23B each have a longitudinally-elongated rectangular shape and are joined together via joint portions 25 extending along respective side edge portions of the tubular body 2 that extend along the longitudinal direction thereof. The tubular body 2 has a uniform width throughout its length.

[0014] Hereinafter, to provide a description that applies to both the first surface sheet 23A and the second surface sheet 23B, the two sheets will be collectively expressed as a "substrate sheet 23". The substrate sheet 23 may be formed from a material such as, for example, a nonwoven fabric (a polyethylene nonwoven fabric, a polyethylene terephthalate nonwoven fabric, or the like), a woven fabric, a net-like sheet, a porous or nonporous resin film (a polyethylene film, a polyethylene terephthalate film, or the like), paper, a macromolecular material sheet, a rubber sheet, or a composite or the like of these.

[0015] The tubular body 2 is capable of being rolled up. Being capable of being rolled up means that the tubular body 2 can be wound into a roll shape as shown in FIG. 2. Such a configuration may be a configuration in which the tubular body 2 automatically rolls up or may be a configuration in which the tubular body 2 is manually rolled up. From the standpoint of facilitating winding of the tubular body 2 even more, it is preferable that the tubular body 2 have the automatic rolling-up configuration. 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 upon releasing the hand from the tubular body 2 after stretching out the tubular body 2 and inserting a bundle of hair therein, the tubular body 2 rolls up together with the bundle of hair. Such a configuration can be realized by either or both of the first surface sheet 23A and the second surface sheet 23B being made of a shape memory sheet. 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

memorized original roll shape when the shape memory sheet is heated.

[0016] The substrate sheet 23 of the hair holder 1 may also have a slit. For example, as shown in FIGS. 1(a) and 1(c), the second surface sheet 23B of the hair holder 1 can be provided with a plurality of laterally-elongated slits 6 that extend along the width direction Y and spaced apart from each other in the longitudinal direction X. The slits 6 can be provided over the entire region of the second surface sheet 23B with respect to the longitudinal direction X. When the slits 6 are provided, the extensibility of the substrate sheet 23 constituting the hair holder 1 can be improved, and the tubular body 2 can be smoothly rolled up. In particular, it is advantageous if the second surface sheet 23B, which is located on the outside when rolled up, is provided with a plurality of slits 6 that are spaced apart from each other in the longitudinal direction X, because the tubular body 2 can then be even more smoothly rolled up. Thus, it is preferable that a plurality of slits 6 each having a shape elongated in the width direction of the tubular body 2 be formed in the substrate sheet 23, which constitutes the tubular body 2, while being spaced apart from each other in the longitudinal direction X of the tubular body 2. It is more preferable that a plurality of slits 6 be formed in both the first surface sheet 23A and the second surface sheet 23B, which constitute the tubular body 2.

[0017] Instead of the slits 6 shown in FIG. 1(a), slits disclosed in FIG. 1 etc. of JP 2006-129972A, for example, can also be provided as the slits provided in the substrate sheet 23.

[0018] As shown in FIG. 1(a), an extended portion 4 extending from the first surface sheet 23A along the longitudinal direction X of the tubular body 2 is provided near an end portion of the opening 21 at one end of the tubular body 2 of the hair holder 1. The first surface sheet 23A and the extended portion 4 are integrally formed. As shown in FIG. 1(b), a roll fixing portion 5 is provided in the extended portion 4, on the opposite side to the second surface sheet 23B. The roll fixing portion 5 is engageable with the second surface sheet 23B. The roll fixing portion 5 keeps the tubular body 2 in a rolled-up state by engaging with the tubular body 2 in the rolled-up state. Various members can be used as the roll fixing portion 5 as long as they are engageable with the second surface sheet 23B. In the present embodiment, a male member of a mechanical fastener is used.

[0019] The tubular body 2 of the hair holder 1 may also be stretched in the natural state; however, when considering the ease of use, it is preferable that the tubular body 2, in the natural state, be wound into a roll shape with the first surface sheet 23A located on the inside.

[0020] As shown in FIG. 1(c), the tubular body 2 has a central region B that is the central region of three regions into which the tubular body 2 is divided by equally dividing its total length in the longitudinal direction X, a first end portion region A that is located on the opening 21 side relative to the central region B, and a second end portion region C that is located on the opening 22 side relative to the central region B.

[0021] As shown in FIGS. 1(a) and 1(c), the tubular body 2 of the hair holder 1 has a first side edge S1 extending in the longitudinal direction X and a second side edge S2 extending in the longitudinal direction X. Moreover, the hair holder 1 has a first winding and tightening tab 8A1 that extends outward in the width direction Y from the first side edge S1 constituting one of the side edges of the tubular body 2, and a second winding and tightening tab 8A2 that extends outward in the width direction Y from the second side edge S2 constituting the other side edge of the tubular body 2. One first winding and tightening tab 8A1 is provided only in the first end portion region A. One second winding and tightening tab 8A2 is provided only in the second end portion region C. No winding and tightening tab is provided at any position on the first side edge S1 and the second side edge S2 in the central region B. Both the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 have a substantially semicircular shape, and extend outward in the width direction Y from the respective side edges S1 and S2 so that the straight line portions of the substantial semicircles are shared with the first side edge S1 and the second side edge S2, respectively.

[0022] FIGS. 3(a) to 3(c) illustrate how the hair holder 1 of the present embodiment is used. These drawings sequentially illustrate a manner in which a bundle of hair H is rolled up by using the hair holder 1. FIG. 3(a) illustrates a state after the bundle of hair H has been inserted into the tubular body 2 of the hair holder 1 by using a known hair insertion tool (not shown). In particular, it is preferable that the bundle of hair H be inserted by means of a hair treatment device including the hair holder 1 in which the tubular body 2 is wound into a roll shape in its natural state and an elongated hair insertion tool (not shown) for inserting the bundle of hair H into the tubular body 2. From the standpoint of further facilitating the operation for inserting the bundle of hair H, it is preferable that the hair insertion tool be provided with a hook portion to which the bundle of hair H can be hooked. Moreover, a tool disclosed in JP 2008-61959A or other tools can also be used as the hair insertion tool.

[0023] From the state illustrated in FIG. 3(a), the hair holder 1 is wound as illustrated in FIG. 3(b). The hair holder 1 is wound from the opening 22 at the other end toward the opening 21 at one end. FIG. 3(b) illustrates the method for rolling up the tubular body 2 of the hair holder 1 in the case where the tubular body 2 is configured to be manually rolled up. In this case, the wearer of the hair holder 1 or an operator other than the wearer holds the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 using both hands and, from this state, can roll up the hair holder 1. In the case where the tubular body 2 is configured to automatically roll up, the tubular body 2 spontaneously rolls up when the hands are withdrawn therefrom after the bundle of hair H has been inserted as shown in FIG. 3(a).

[0024] FIG. 3(c) illustrates a state in which the rolling-up of the hair holder 1 has been completed. In this drawing, the

hair holder 1 with the bundle of hair H inserted therein is in a wound state having a predetermined roll diameter. In the case where the roll diameter of the hair holder 1 in the wound state is larger than a desired value, the roll diameter can be reduced to the desired roll diameter by holding the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 and further winding the hair holder 1. At this time, the direction of rotation of the hand holding the first winding and tightening tab 8A1 and the direction of rotation of the hand holding the second winding and tightening tab 8A2 are opposite to each other. The "roll diameter" as used herein refers to the inner diameter or the outer diameter of the hair holder 1 in the wound state.

[0025] In the case where the roll diameter of the hair holder 1 in the wound state is smaller than a desired value, the roll diameter can be increased to the desired roll diameter by holding the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 and slightly loosening the wound state. At this time as well, the direction of rotation of the hand holding the first winding and tightening tab 8A1 and the direction of rotation of the hand holding the second winding and tightening tab 8A2 are opposite to each other.

[0026] As described above, with the hair holder 1 according to the present embodiment, the roll diameter of the hair holder 1 in the wound state can be easily adjusted through a simple operation of merely holding the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 with fingers and rotating these tabs in opposite directions. This operation can be easily performed because the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 are disposed only in the first end portion region A and only in the second end portion region C, respectively, and also disposed on the first side edge S1 and the second side edge S2, respectively.

[0027] In the case where the arrangement relationship between the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 of the hair holder 1 does not satisfy the above-described requirements, for example, in the case where, even though winding and tightening tabs are provided on the respective side edges as in the hair holder disclosed in Patent Literature 2, the two winding and tightening tabs are provided on the same opening side, the winding and tightening tabs need to be held with fingers of both hands and rotated in the same direction, or alternatively, only one winding and tightening tab of the two winding and tightening tabs needs to be held with fingers of one hand and rotated, and therefore, adjustment of the roll diameter is not easy in either case.

[0028] Moreover, in the case where, even though winding and tightening tabs are provided at the respective openings, the two winding and tightening tabs are provided on the same side edge, the distance between the winding and tightening tabs changes in accordance with the extent to which the hair holder 1 is rolled up, and in some cases, the two winding and tightening tabs may overlap. Therefore, winding and tightening is difficult.

[0029] Furthermore, in the case where winding and tightening tabs are provided only in the central region of the tubular body 2, such winding and tightening tabs do not contribute to winding and tightening of the hair holder 1 in the wound state. Furthermore, in the hair holder 1 shown in FIGS. 1(a) to 1(c), if an additional winding and tightening tab is further provided in the central region B, the additional winding and tightening tab may be an obstruction in holding the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 with fingers, and therefore, winding and tightening is also difficult.

[0030] In view of the foregoing issues, with regard to the arrangement of the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2, it is possible to adopt, in addition to the embodiment shown in FIGS. 1(a) to 1(c), an embodiment shown in FIG. 4(a), that is, an embodiment in which one first winding and tightening tab 8A1 is disposed on the first side edge S1 of the tubular body 2, and one second winding and tightening tab 8A2 is disposed on the second side edge S2, the first winding and tightening tab 8A1 being disposed only in the second end portion region C, and the second winding and tightening tab 8A2 being disposed only in the first end portion region A.

[0031] Moreover, an embodiment can be adopted in which, as shown in FIG. 4(b), one first winding and tightening tab 8A1 is disposed on the first side edge S1 of the tubular body 2, and one second winding and tightening tab 8A2 is disposed on the second side edge S2, a portion of the first winding and tightening tab 8A1 being disposed in the first end portion region A while the remaining portion being disposed in the central region B, and a portion of the second winding and tightening tab 8A2 being disposed in the second end portion region C while the remaining portion being disposed in the central region B.

[0032] Furthermore, an embodiment can be adopted in which, as shown in FIG. 4(c), a plurality of (three in FIG. 4(c)) first winding and tightening tabs 8A11, 8A12, and 8A13 are disposed on the first side edge S1 of the tubular body 2, and a plurality of (three in FIG. 4(c)) second winding and tightening tabs 8A21, 8A22, and 8A23 are disposed on the second side edge S2, the first winding and tightening tabs 8A11, 8A12, and 8A13 being disposed only in the first end portion region A, and the second winding and tightening tabs 8A21, 8A22, and 8A23 being disposed only in the second end portion region C. In this case, a portion of the first winding and tightening tab 8A13, which is located nearest to the central region B, of the three first winding and tightening tabs 8A11, 8A12, and 8A13 may be disposed in the first end portion region A with the remaining portion in the central region B. Similarly, a portion of the second winding and tightening tab 8A21, which is located nearest to the central region B, of the three second winding and tightening tabs 8A21, 8A22, and 8A23 may be disposed in the second end portion region C with the remaining portion in the central region B.

[0033] In the cases where a plurality of winding and tightening tabs 8A11, 8A12, and 8A13 are disposed on the first

side edge S1 side, including the embodiment shown in FIG. 4(c), it is preferable, from the standpoint of preventing the ease of holding the winding and tightening tabs 8A11, 8A12, and 8A13 from being impaired, that the plurality of winding and tightening tabs 8A11, 8A12, and 8A13 are arranged in such a positional relationship that the three tabs do not overlap one another when the hair holder 1 is in the wound state. This also applies to the cases where a plurality of winding and tightening tabs 8A21, 8A22, and 8A23 are disposed on the second side edge S2, and it is preferable that the plurality of winding and tightening tabs 8A21, 8A22, and 8A23 be arranged in such a positional relationship that the three tabs do not overlap one another when the hair holder 1 is in the wound state.

[0034] FIGS. 5(a) to 5(c) and 6 show other embodiments of the hair holder of the present invention. With respect to hair holders of these embodiments, differences from the hair holders of the above-described embodiments shown in FIGS. 1 to 4 are mainly described, and descriptions of the hair holders of the above embodiments are appropriately applied to other points that are not expressly described. Moreover, in FIGS. 5(a) to 5(c) and 6, the same members as those in FIGS. 1 to 4 are denoted by the same reference numerals.

[0035] The hair holders 1 respectively shown in FIGS. 5(a) to 5(c) each have a first winding and tightening tab 8B1 on the first side edge S1, which constitutes one side edge of the tubular body 2, and a second winding and tightening tab 8B2 on the other side edge of the tubular body 2. The first winding and tightening tab 8B1 is a portion extending outward in the width direction Y from the first side edge S1 of the tubular body 2. The second winding and tightening tab 8B2 is a portion extending outward in the width direction Y from the second side edge S2 of the tubular body 2. The length of the first winding and tightening tab 8B1 in the width direction Y gradually increases from the opening 21 side at one end toward the opening 22 side at the other end, while the length of the second winding and tightening tab 8B2 in the width direction Y gradually decreases from the opening 21 side at one end toward the opening 22 side at the other end.

[0036] The first winding and tightening tab 8B1 of the hair holder 1 shown in FIG. 5(a) is provided extending over a portion of the first end portion region A and the entirety of the central region B and the second end portion region C. The length of the first winding and tightening tab 8B1 in the width direction Y continuously increases from the opening 21 side at one end of the tubular body 2 toward the opening 22 side at the other end. The maximum width portion of the first winding and tightening tab 8B1 is present at a position of the opening 22 in the second end portion region C. The first winding and tightening tab 8B1 is not provided at a position near the opening 21, in the first end portion region A.

[0037] Meanwhile, the second winding and tightening tab 8B2 of the hair holder 1 shown in FIG. 5(a) is provided extending over a portion of the second end portion region C and the entirety of the central region B and the first end portion region A. The length of the second winding and tightening tab 8B2 in the width direction Y continuously increases from the opening 22 side at the other end of the tubular body 2 toward the opening 21 side at one end. The maximum width portion of the second winding and tightening tab 8B2 is present at a position of the opening 21 in the first end portion region A. The second winding and tightening tab 8B2 is not provided at a position near the opening 22, in the second end portion region C.

[0038] The first winding and tightening tab 8B1 of the hair holder 1 shown in FIG. 5(b) is provided extending over a portion of the first end portion region A, the entirety of the central region B, and a portion of the second end portion region C. The length of the first winding and tightening tab 8B1 in the width direction Y continuously increases from the opening 21 side at one end of the tubular body 2 toward the opening 22 side at the other end. The maximum width portion of the first winding and tightening tab 8B1 is present at a position in the second end portion region C at which the first winding and tightening tab 8B1 ends. The first winding and tightening tab 8B1 is not provided at a position near the opening 21 in the first end portion region A nor at a position near the opening 22 in the second end portion region C.

[0039] Meanwhile, the second winding and tightening tab 8B2 of the hair holder 1 shown in FIG. 5(b) is provided extending over a portion of the second end portion region C, the entirety of the central region B, and a portion of the first end portion region A. The length of the second winding and tightening tab 8B2 in the width direction Y continuously increases from the opening 22 side at the other end of the tubular body 2 toward the opening 21 side at one end. The maximum width portion of the second winding and tightening tab 8B2 is present at a position in the first end portion region A at which the second winding and tightening tab 8B2 ends. The second winding and tightening tab 8B2 is not provided at a position near the opening 22 in the second end portion region C nor at a position near the opening 21 in the first end portion region A.

[0040] The first winding and tightening tab 8B1 of the hair holder 1 shown in FIG. 5(c) is provided extending over the entire length of the tubular body 2. The length of the first winding and tightening tab 8B1 in the width direction Y continuously increases from the opening 21 side at one end of the tubular body 2 toward the opening 22 side at the other end. The maximum width portion of the first winding and tightening tab 8B1 is present at a position of the opening 22 in the second end portion region C. The first winding and tightening tab 8B1 has a protruding tab 8C 1 protruding outward in the width direction Y from the position at which the maximum width portion is present.

[0041] The second winding and tightening tab 8B2 of the hair holder 1 shown in FIG. 5(c) is also provided extending over the entire length of the tubular body 2. The length of the second winding and tightening tab 8B2 in the width direction Y continuously increases from the opening 22 side at the other end of the tubular body 2 toward the opening 21 side at

one end. The maximum width portion of the second winding and tightening tab 8B2 is present at a position of the opening 21 in the first end portion region A. The second winding and tightening tab 8B2 has a protruding tab 8C2 protruding outward in the width direction Y from the position at which the maximum width portion is present.

[0042] The hair holders 1 of the embodiments shown in FIGS. 5(a) to 5(c) and having the above-described configurations can each be wound and tightened with the first winding and tightening tab 8B1 being held with fingers of one hand while an opening 21-side end portion of the second winding and tightening tab 8B2 being held with fingers of the other hand. Thus, the operation for rolling up the hair holders 1 can be easily performed.

[0043] Moreover, as shown in FIG. 6, each of the first winding and tightening tab 8B1 and the second winding and tightening tab 8B2 extends outward in the width direction Y from the tubular body 2 so as to overlap itself in a staircase manner when the hair holder 1 is in the wound state. The number of overlapping steps of the winding and tightening tabs 8B1 and 8B2 extending in this manner correlates with the roll diameter of the bundle of hair H. Therefore, the roll diameter of the bundle of hair can be known from the number of overlapping steps of the winding and tightening tabs 8B1 and 8B2. Specifically, the larger the number of overlapping steps of the winding and tightening tabs 8B1 and 8B2, the smaller the roll diameter of the bundle of hair H, and the smaller the number of overlapping steps, the larger the roll diameter of the bundle of hair H.

[0044] Furthermore, in the case where the roll diameter of the hair holder 1 in the wound state is larger than a desired value, the roll diameter can be reduced to the desired roll diameter by holding the maximum width portion (or the protruding tab 8C1 or 8C2) of the first winding and tightening tab 8A1 and the maximum width portion (or the protruding tab 8C1 or 8C2) of the second winding and tightening tab 8A2 and further winding the hair holder 1. Conversely, in the case where the roll diameter of the hair holder 1 in the wound state is smaller than a desired value, the roll diameter can be increased to the desired roll diameter by holding the maximum width portion (or the protruding tab 8C1 or 8C2) of the first winding and tightening tab 8A1 and the maximum width portion (or the protruding tab 8C1 or 8C2) of the second winding and tightening tab 8A2 and slightly loosening the wound state.

[0045] FIGS. 7(a) to 7(c), 8(a), and 8(b) show yet other embodiments of the hair holder of the present invention. With respect to the hair holders of these embodiments, differences from the hair holders of the above-described embodiments shown in FIGS. 1 to 6 are mainly described, and descriptions of the hair holders of the above embodiments are appropriately applied to other points that are not expressly described. Moreover, in FIGS. 7(a) to 7(c), 8(a), and 8(b), the same members as those in FIGS. 1 to 6 are denoted by the same reference numerals.

[0046] The hair holder 1 of the embodiment shown in FIG. 7(a) corresponds to a configuration in which two extended portions 4 are provided in the hair holder 1 shown in FIG. 1. More specifically, not only a first extended portion 4A formed by the first surface sheet 23A extending in the longitudinal direction X from the end portion of the opening 21 at one end of the tubular body 2, but also a second extended portion 4B formed by the first surface sheet 23A extending in the longitudinal direction X from the end portion of the opening 22 at the other end of the tubular body 2 are provided. The first surface sheet 23A and the first and second extended portions 4A and 4B are integrally formed.

[0047] According to the embodiment shown in FIG. 7(a), since the first surface sheet 23A has the extended portions 4A and 4B at opposite respective longitudinal end portions of the first surface sheet 23A in the longitudinal direction X, the extended portions 4A and 4B each integrally extending in the longitudinal direction X from the respective end portions, not only insertion of the bundle of hair H from the opening 21 at one end of the tubular body 2 is easy, but also insertion of the bundle of hair H from the opening 22 at the other end is easy. Thus, the hair holder 1 can be used without concern for the orientation thereof. In particular, in the case where the hair holder 1 has the automatic rolling-up configuration, in the natural state (including a state after hair treatment has been performed once, and the like), the opening 21 side at one end is not necessarily always located on the outside, and there is a possibility that the opening 22 at the other end may be located on the outside. In such a case, since the hair holder 1 has the extended portions 4A and 4B, even when the opening 22 at the other end is located on the outside, the time and effort required to rewind the hair holder 1 before inserting hair from an opening are advantageously saved.

[0048] The hair holders 1 of the embodiments shown in FIGS. 7(b) and 7(c) respectively correspond to a configuration in which two extended portions 4 are provided in the hair holders 1 shown in FIGS. 4(b) and 4(c). More specifically, the hair holders 1 each have the first extended portion 4A extending from the end portion of the opening 21 at one end of the tubular body 2 and the second extended portion 4B extending from the end portion of the opening 22 at the other end. Accordingly, the hair holders 1 of the embodiments shown in these drawings also have the same effects as the hair holder 1 of the embodiment shown in FIG. 7(a).

[0049] It should be noted that the hair holder 1 shown in FIG. 7(c) has the same configuration as the hair holder 1 shown in FIG. 4(c) except that the number of winding and tightening tabs is different. In the hair holder 1 shown in FIG. 7(c), a plurality of (two in FIG. 7(c)) first winding and tightening tabs 8A1 are disposed on the first side edge S1 of the tubular body 2, and a plurality of (two in FIG. 7(c)) second winding and tightening tabs 8A2 are disposed on the second side edge S2. Also, the first winding and tightening tabs 8A1 are disposed only in the first end portion region A, and the second winding and tightening tabs 8A2 are disposed only in the second end portion region C. In this case, a portion of one of the two first winding and tightening tabs 8A1 that is located nearest to the central region B is disposed in the first

end portion region A with the remaining portion thereof disposed in the central region B. Similarly, a portion of one of the two second winding and tightening tabs 8A2 that is located nearest to the central region B is disposed in the second end portion region C with the remaining portion thereof disposed in the central region B. Furthermore, the two first winding and tightening tabs 8A1 are arranged spaced apart from each other, with a certain distance left therebetween. Similarly, the two second winding and tightening tabs 8A2 are also arranged spaced apart from each other, with a certain distance left therebetween.

[0050] In the hair holder 1 shown in FIG. 8(a), the first winding and tightening tab 8B1 and the second winding and tightening tab 8B2 are provided extending over the entire length of the tubular body 2. The length of the first winding and tightening tab 8B1 in the width direction Y continuously increases from the opening 21 side at one end of the tubular body 2 toward the opening 22 side at the other end. The length of the second winding and tightening tab 8B2 in the width direction Y continuously increases from the opening 22 side at the other end of the tubular body 2 toward the opening 21 side at one end. Furthermore, the hair holder 1 has the first extended portion 4A extending from the end portion of the opening 21 at one end of the tubular body 2 and the second extended portion 4B extending from the end portion of the opening 22 at the other end.

[0051] The hair holder 1 shown in FIG. 8(b) corresponds to a configuration in which two extended portions 4 are provided in the hair holder 1 shown in FIG. 5(b). More specifically, the hair holder 1 has the first extended portion 4A extending from the end portion of the opening 21 at one end of the tubular body 2 and the second extended portion 4B extending from the end portion of the opening 22 at the other end.

[0052] The hair holders 1 shown in FIGS. 8(a) and 8(b) also have, as is the case with the hair holders 1 shown in FIGS. 7(a) to 7(c), the first surface sheet 23A having the extended portions 4A and 4B at opposite respective longitudinal end portions of the first surface sheet 23A in the longitudinal direction X, the extended portions 4A and 4B each integrally extending in the longitudinal direction X from the respective end portions, and thus have the same advantageous effects as the hair holders 1 shown in FIGS. 7(a) to 7(c).

[0053] With the hair holders 1 of the embodiments having the above-described configurations, a hair treatment method for performing hair treatment on a bundle of hair H can be performed. As described above, this hair treatment method includes a step of rolling up the tubular body 2 together with the bundle of hair H inserted into the tubular body 2. Moreover, this hair treatment method includes a step of adjusting the roll diameter of the bundle of hair H by using the winding and tightening tabs 8A1 and 8A2 or 8B1 and 8B2, during rolling-up of the tubular body 2 together with the bundle of hair H inserted into the tubular body 2. In the case where the roll diameter of a bundle of hair H is to be adjusted, it is preferable to substantially equalize the roll diameters of bundles of hair H in at least two hair holders 1.

[0054] Next, features that are shared among the hair holders 1 of the respective embodiments that have been described above will be described. 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 bundle of hair to be inserted, but are preferably within the following ranges.

[0055] The minimum length W1 (see FIG. 1(a)) of the tubular body 2 in the width direction Y is preferably not less than 25 mm and more preferably not less than 30 mm, and also preferably not more than 200 mm and more preferably not more than 150 mm, and is preferably between 25 mm and 200 mm inclusive and more preferably between 30 mm and 150 mm inclusive.

[0056] The length L1 (see FIG. 1(a)) of the hair holder 1 in the longitudinal direction X is preferably not less than 50 mm and more preferably not less than 100 mm, and also preferably not more than 400 mm and more preferably not more than 350 mm, and is preferably between 50 mm and 400 mm inclusive and more preferably between 100 mm and 350 mm inclusive. The length L 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.

[0057] The length L2 (see FIG. 1(a)) of the tubular body 2 in the longitudinal direction X is preferably not less than 45 mm and more preferably not less than 90 mm, and also preferably not more than 300 mm and more preferably not more than 275 mm, and is preferably between 45 mm and 300 mm inclusive and more preferably between 90 mm and 275 mm inclusive.

[0058] The length W21 (see FIG. 1(a)) of the openings 21 and 22 in the width direction Y relative to the length W1 of the tubular body 2 in the width direction Y is preferably not less than 40.0% and more preferably not less than 66.7%, and also preferably not more than 97.5% and more preferably not more than 96.7%, and is preferably between 40.0% and 97.5% inclusive and more preferably between 66.7% and 96.7% inclusive.

[0059] The length W21 (see FIG. 1(a)) of the openings 21 and 22 in the width direction Y is preferably not less than 10 mm and more preferably not less than 20 mm, and also preferably not more than 195 mm and more preferably not more than 145 mm, and is preferably between 10 mm and 195 mm inclusive and more preferably between 20 mm and 145 mm inclusive.

[0060] The length L4 (see FIG. 1(a)) of the extended portion 4 in the longitudinal direction X is preferably not less than 5 mm and more preferably not less than 10 mm, and also preferably not more than 100 mm and more preferably not more than 75 mm, and is preferably between 5 mm and 100 mm inclusive and more preferably between 10 mm and 75

mm inclusive.

[0061] From the standpoint of further facilitating adjustment of the roll diameter of the hair holder 1 in the wound state, it is preferable that the dimensions and the like of the winding and tightening tabs 8A1, 8A2, 8B1, and 8B2 be within the following ranges.

[0062] The maximum protruding length W8A (see FIG. 1(a)) of the winding and tightening tabs 8A1, 8A2, 8B1, and 8B2 in the width direction Y relative to the length W1 (see FIG. 1(a)) of the tubular body 2 in the width direction Y is preferably not less than 2.5% and more preferably not less than 6.7%, and also preferably not more than 100.0% and more preferably not more than 75.0%, and is preferably between 2.5% and 100.0% inclusive and more preferably between 6.7% and 75.0% inclusive.

[0063] The maximum protruding length W8A (see FIG. 1(a)) of the winding and tightening tabs 8A1, 8A2, 8B1, and 8B2 in the width direction Y is preferably not less than 5 mm and more preferably not less than 10 mm, and also preferably not more than 70 mm and more preferably not more than 50 mm, and is preferably between 5 mm and 70 mm inclusive and more preferably between 10 mm and 50 mm inclusive.

[0064] The maximum length L8A (see FIG. 1(a)) of the winding and tightening tabs 8A1 and 8A2 in the longitudinal direction X relative to the length L2 (see FIG. 1(a)) of the tubular body 2 in the longitudinal direction X is preferably not less than 3.3% and more preferably not less than 5.5%, and also preferably not more than 40.0% and more preferably not more than 33.0%, and is preferably between 3.3% and 40.0% inclusive and more preferably between 5.5% and 33.0% inclusive.

[0065] The maximum length L8A (see FIG. 1(a)) of the winding and tightening tabs 8A1 and 8A2 in the longitudinal direction X is preferably not less than 10 mm and more preferably not less than 15 mm, and also preferably not more than 130 mm and more preferably not more than 100 mm, and is preferably between 10 mm and 130 mm inclusive and more preferably between 15 mm and 100 mm inclusive.

[0066] The hair treatment method that uses the hair holder 1 of any of the foregoing embodiments is as described below. As the hair treatment method, in the case where a curl is to be directly imparted to hair (head hair) through permanent wave treatment, for example, a hair holder 1 constituted by a tubular body 2 having an appropriate length and width is used in accordance with the volume of a bundle of hair H and the shape of the curl that is desired to be obtained, and, as illustrated in FIG. 9(a), the bundle of hair H is inserted into the opening 21 at one end of the stretched tubular body 2. At this time, the opening 21 at one end of the hair holder 1 may be formed in an elliptical shape; however, where necessary, it is easier to smoothly insert the bundle of hair H if the opening 21 is formed in a true circular shape. Moreover, from the standpoint of making the operation for inserting the bundle of hair H smoother, it is preferable that the operation for inserting the bundle of hair H be performed by using the above-described hair insertion tool. Moreover, as illustrated in FIG. 9(a), a leading end of the bundle of hair H may protrude from the opening 22 at the other end of the tubular body 2.

[0067] After the bundle of hair H has been inserted into the tubular body 2, the tubular body 2 is rolled up from the opening 22 side at the other end thereof, with the first surface sheet 23A inside, as illustrated in FIGS. 9(b) and 9(c). At this time, the roll diameter of the bundle of hair H can be adjusted by using the winding and tightening tabs 8A1 and 8A2. After the tubular body 2 has been rolled up, and the roll diameter has been adjusted, the roll fixing portion 5 and the second surface sheet 23B are engaged with each other, and thus, the tubular body 2 is fixed in the rolled-up state while having a predetermined roll diameter.

[0068] Next, a hair treatment agent for permanent waving is provided to the bundle of hair H that has been rolled up with the hair holder 1. The hair treatment agent is provided to the bundle of hair H from the outside of the tubular body 2. After a predetermined period of time has elapsed, the bundle of hair H is taken out from the tubular body 2 and subjected to washing and the like to complete the permanent wave treatment. In the case where a two-agent type hair treatment agent for permanent waving is used, the second agent is applied to the bundle of hair H before the bundle of hair H is taken out. Then, after a predetermined period of time has elapsed, the bundle of hair H is taken out from the tubular body 2 and subjected to washing and the like to complete the permanent wave treatment.

[0069] In the case where curls are imparted to a plurality of bundles of hair H, the roll diameters of the bundles of hair H may be made uniform. From the standpoint of reliably and easily imparting uniform curls to a plurality of bundles of hair H, when using a plurality of hair holders 1 and rolling up the tubular bodies 2 thereof together with the corresponding bundles of hair H inserted into the respective tubular bodies 2, it is preferable to substantially equalize the roll diameters of the bundles of hair H in at least two of the hair holders 1 by using the winding and tightening tabs 8A1 and 8A2. In particular, the hair treatment method that uses the hair holder 1 can be preferably performed to symmetrically impart a plurality of curls to head hair.

[0070] Although the present invention has been described above based on the preferred embodiments thereof, the present invention is not limited to the foregoing embodiments. For example, in the embodiments shown in FIGS. 5(a) to 5(c), 8(a), and 8(b), the length of the first winding and tightening tab 8B1 in the width direction Y gradually increases from the opening 21 side at one end toward the opening 22 side at the other end, and the length of the second winding and tightening tab 8B2 in the width direction Y gradually decreases from the opening 21 side at one end toward the

opening 22 side at the other end. However, instead of this configuration, a configuration may also be adopted in which the length of the first winding and tightening tab 8B1 in the width direction Y gradually decreases from the opening 21 side at one end toward the opening 22 side at the other end, and the length of the second winding and tightening tab 8B2 in the width direction Y gradually increases from the opening 21 side at one end toward the opening 22 side at the other end.

[0071] Moreover, in the embodiments shown in FIGS. 5(a) to 5(c), 8(a), and 8(b), the length of the first winding and tightening tab 8B1 in the width direction Y gradually increases from the opening 21 side at one end toward the opening 22 side at the other end, and the length of the second winding and tightening tab 8B2 in the width direction Y gradually decreases from the opening 21 side at one end toward the opening 22 side at the other end. However, instead of this configuration, a configuration may also be adopted in which the lengths of the first winding and tightening tab 8B1 and the second winding and tightening tab 8B2 in the width direction Y may change in stages, that is, in a stepwise manner along the longitudinal direction X.

[0072] Moreover, in the embodiments shown in FIGS. 1(a) to 1(c), 4(a) to 4(c), and 7(a) to 7(c), the first winding and tightening tab 8A1 and the second winding and tightening tab 8A2 have a substantially semicircular shape. However, these tabs may also have any other shape that can be held with fingers.

[0073] Moreover, the method for forming the tubular body 2 is not limited, and the tubular body 2 may also be formed by sewing, fusion bonding, or adhesive bonding the sheets together. Moreover, the hair holder 1 may also have a portion having a different length in the width direction Y without impairing the effects of the present invention. It should be noted that the shape and surface state of a sheet material constituting the tubular body 2 of the hair holder 1 are not limited as long as the sheet material can form a tubular body having an above-described form, and in the case where the sheet material has a flat shape, the sheet material may have an uneven surface.

[0074] Moreover, the hair holder of the present invention is not limited to cases where a curl is imparted to hair through permanent wave treatment in which a hair treatment agent is used, but can also be applied to cases where a curl is imparted to hair by, after winding a bundle of hair, performing heat treatment with a drier or the like, keeping dry hair in the wound state, or keeping wet hair in the wound state and letting the hair dry naturally, and other cases. However, the hair holder of the present invention can be preferably used for the permanent wave treatment in which a hair treatment agent is used.

Industrial Applicability

[0075] With the hair holder of the present invention, the operation for adjusting the roll diameter can be easily performed.

Reference Signs List

[0076]

1	Hair holder
2	Tubular body
21, 22	Opening
23	Substrate sheet
23A, 23B	Sheet
4, 4A, 4B	Extended portion
5	Roll fixing portion
8A1, 8A2, 8B1, 8B2	Winding and tightening tab
H	Bundle of hair

Claims

1. A hair holder comprising a tubular body which includes a sheet and into which a bundle of hair can be inserted from an opening at one of opposite ends of the tubular body toward an opening at the other end, wherein the tubular body is capable of being rolled up, and has a first winding and tightening tab on one of opposite side edges of the tubular body and a second winding and tightening tab on the other side edge of the tubular body, the first winding and tightening tab is disposed only in an end portion region on the opening side at the one end, and the second winding and tightening tab is disposed only in an end portion region on the opening side at the other end.
2. A hair holder comprising a tubular body which includes a sheet and into which a bundle of hair can be inserted from an opening at one of opposite ends of the tubular body toward an opening at the other end,

wherein the tubular body is capable of being rolled up, and has a first winding and tightening tab on one of opposite side edges of the tubular body and a second winding and tightening tab on the other side edge of the tubular body, a length, in a width direction, of the first winding and tightening tab increases from the opening side at the one end toward the opening side at the other end, and

a length, in the width direction, of the second winding and tightening tab decreases from the opening side at the one end toward the opening side at the other end.

3. The hair holder as set forth in claim 1 or 2,

wherein the tubular body has a first surface sheet and a second surface sheet,

either or both of the first surface sheet and the second surface sheet are made of a shape memory sheet, and the shape memory sheet causes the tubular body to be wound into a roll shape.

4. The hair holder as set forth in any one of claims 1 to 3,

wherein the tubular body comprises: a first surface sheet that is located on the inside when rolled up; and a second surface sheet that is located on the outside when rolled up, and

the first surface sheet has, at opposite longitudinal end portions of the first surface sheet in a longitudinal direction, extended portions integrally extending in the longitudinal direction from the respective longitudinal end portions.

5. A hair treatment device comprising:

the hair holder as set forth in any one of claims 1 to 4, wherein the tubular body is wound in a roll shape in a natural state; and

an elongated hair insertion tool for inserting a bundle of hair into the tubular body.

6. A hair treatment method for performing hair treatment on a bundle of hair by using the hair holder as set forth in any one of claims 1 to 4,

the method comprising rolling up the tubular body together with the bundle of hair inserted into the tubular body.

7. A hair treatment method for performing hair treatment on a bundle of hair by using the hair holder as set forth in any one of claims 1 to 4,

the method comprising:

adjusting a roll diameter of the bundle of hair by using the winding and tightening tabs when rolling up the tubular body together with the bundle of hair inserted into the tubular body.

8. A hair treatment method for performing hair treatment on bundles of hair by using a plurality of said hair holders as set forth in any one of claims 1 to 4,

the method comprising substantially equalizing roll diameters of the bundles of hair in at least two of the hair holders by using the winding and tightening tabs when rolling up the tubular bodies together with the bundles of hair inserted into the respective tubular bodies.

Fig. 1

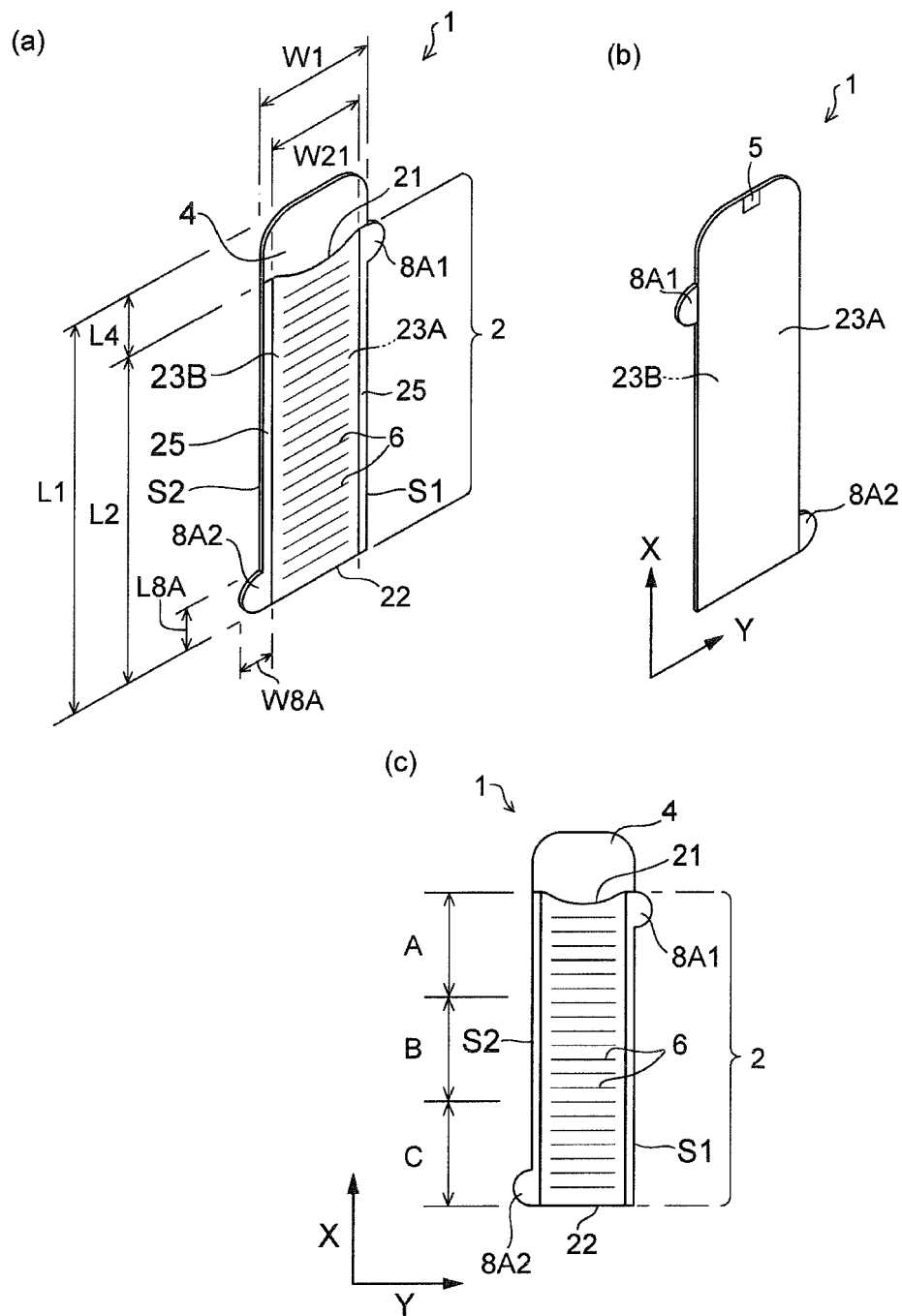


Fig. 2

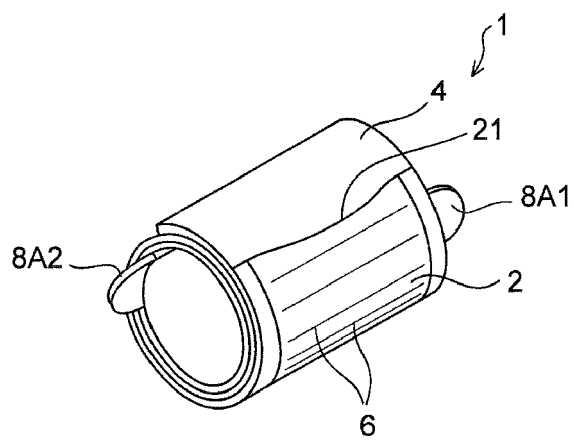


Fig. 3

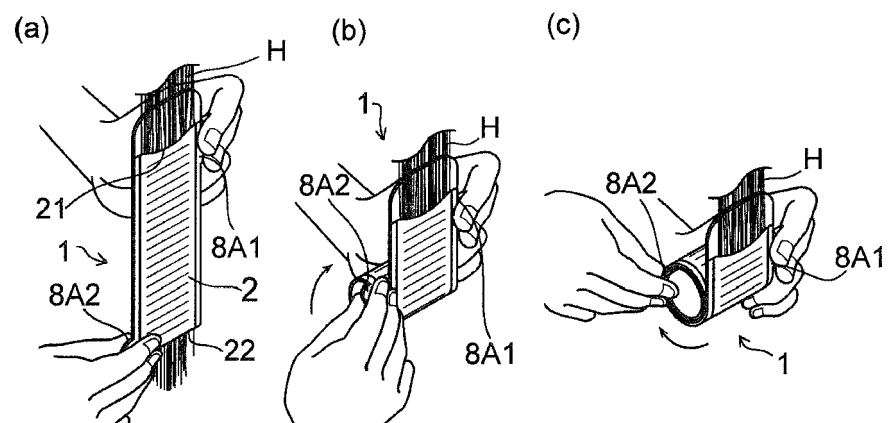


Fig. 4

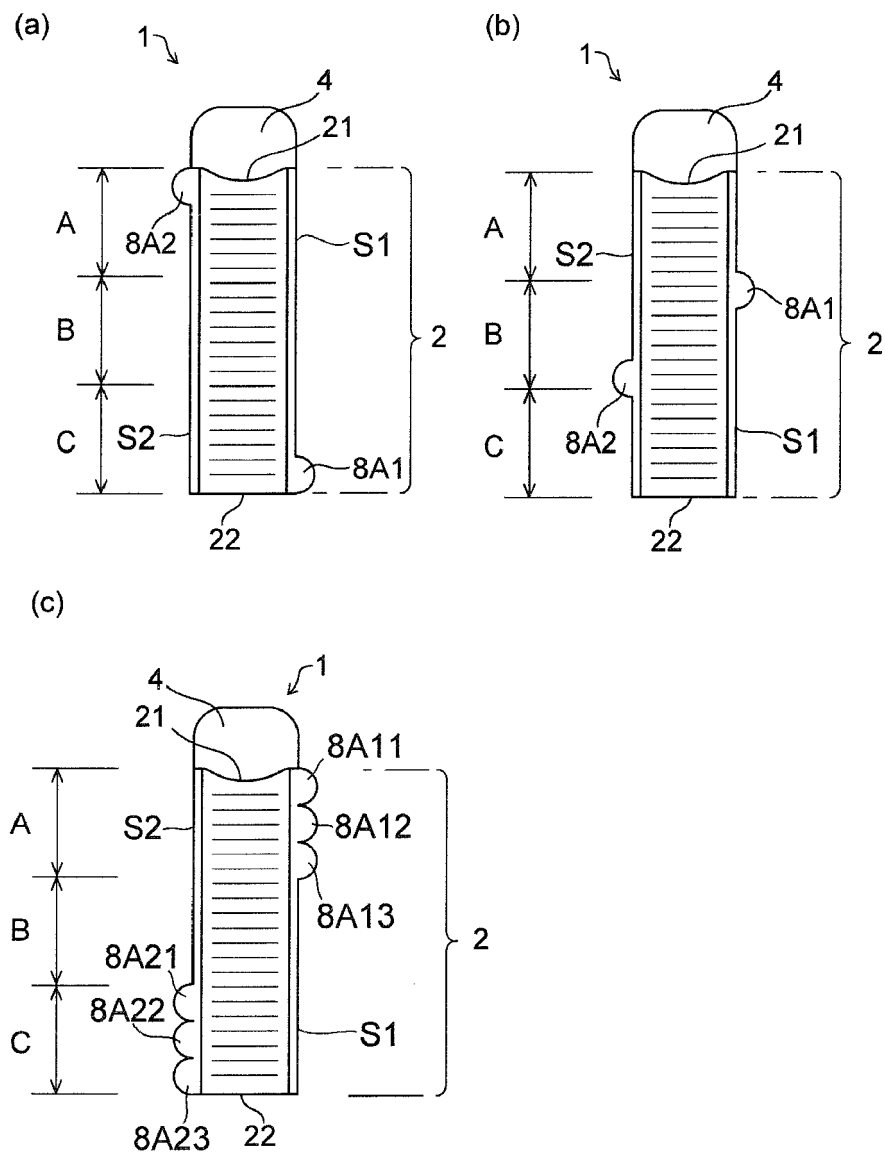


Fig. 5

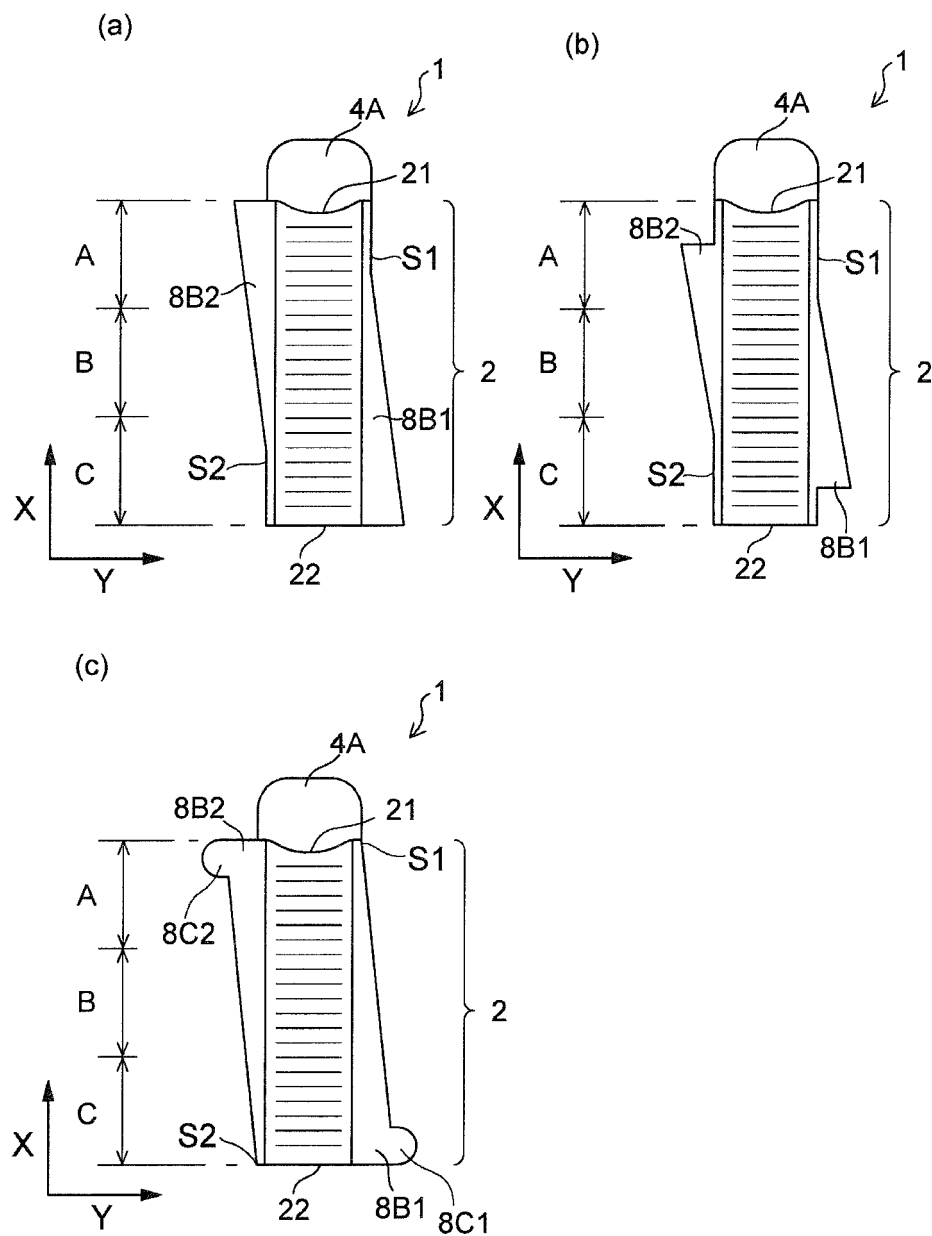


Fig. 6

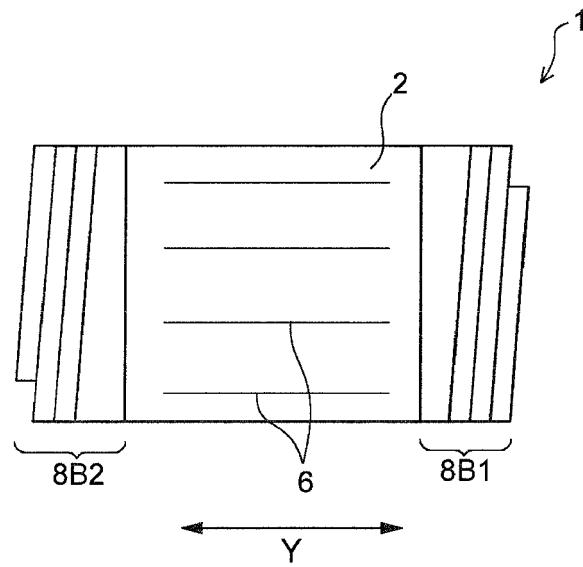


Fig. 7

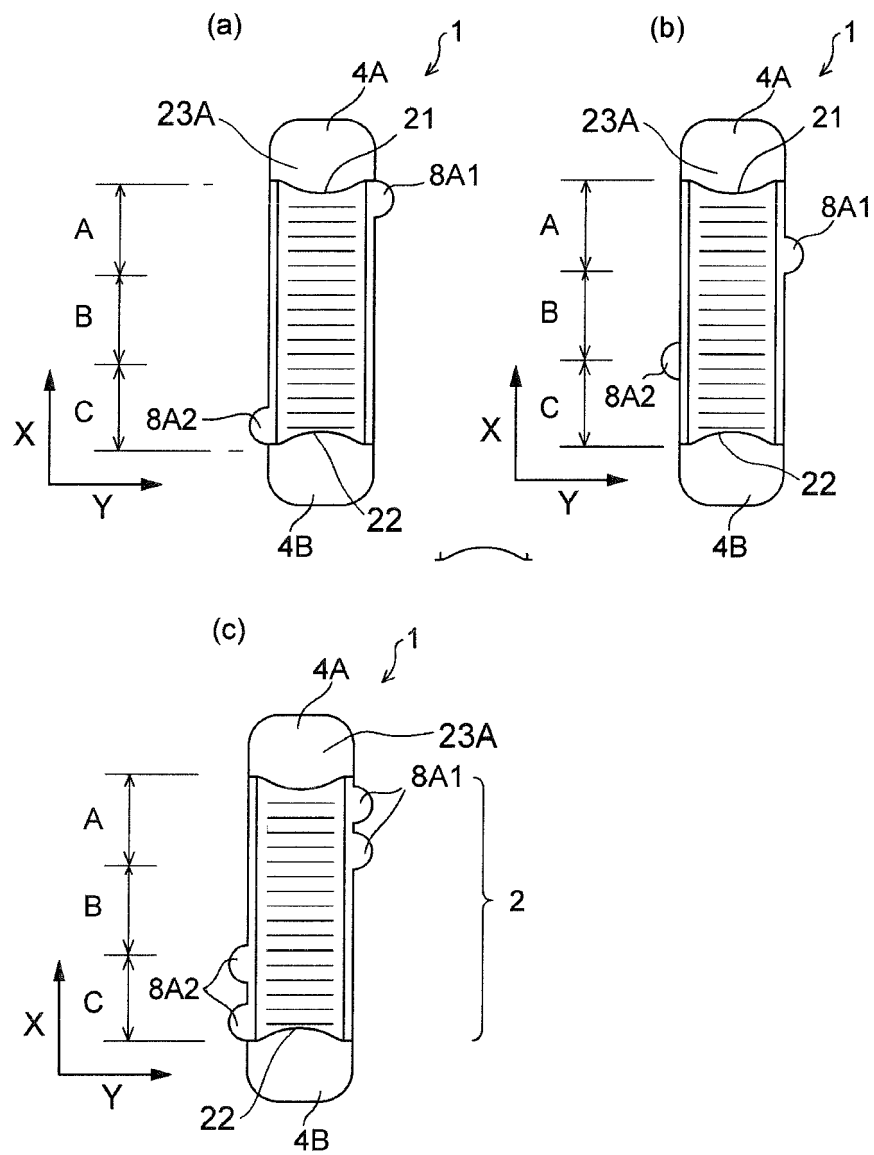


Fig. 8

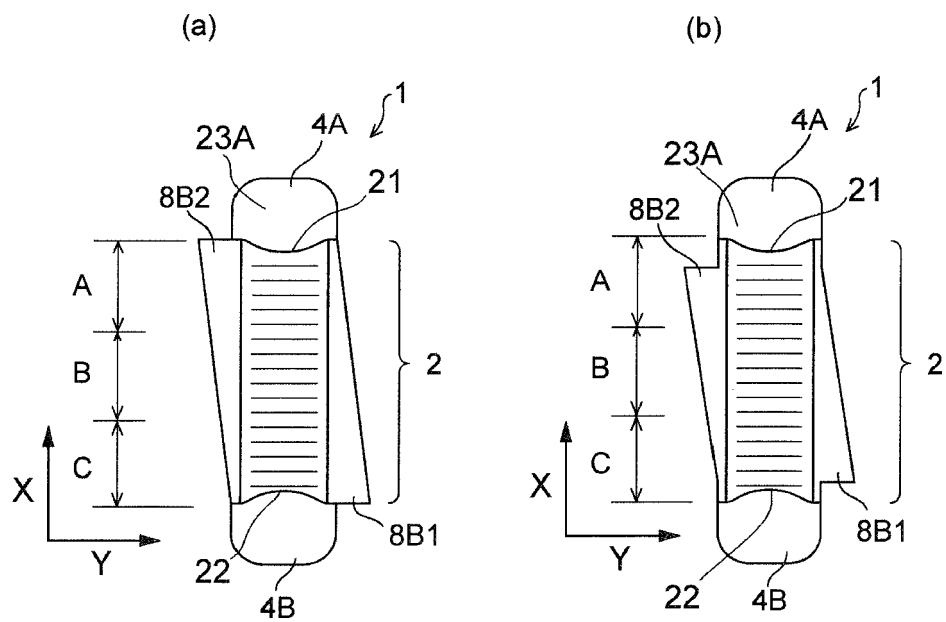
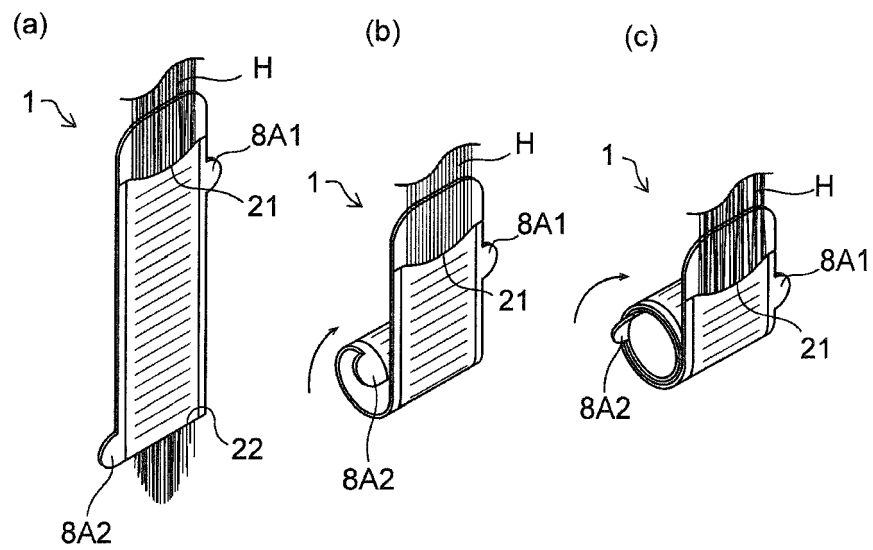


Fig. 9





EUROPEAN SEARCH REPORT

Application Number
EP 17 19 8871

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	JP 2004 209237 A (KAO CORP) 29 July 2004 (2004-07-29) * abstract; figures 10,11 * -----	1-8	INV. A45D19/00
A,D	US 3 255 765 A (MATTHEW STURDIVANT) 14 June 1966 (1966-06-14) * columns 1,2; figures 1-10 * -----	1-8	
			TECHNICAL FIELDS SEARCHED (IPC)
			A45D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 July 2018	Examiner Ionescu, C
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ON EUROPEAN PATENT APPLICATION NO.**

EP 17 19 8871

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24-07-2018

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2004209237 A	29-07-2004	NONE	
US 3255765 A	14-06-1966	NONE	

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 3255765 A [0004]
- JP 2004209237 A [0004]
- JP 2006129972 A [0017]
- JP 2008061959 A [0022]