DIAPER MANUFACTURING METHOD

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ABSTRACT
The method includes: a step of carrying a diaper body 2 in a longitudinal direction X perpendicular to a girth direction Y; a step of forming panel assemblies P, each including a side panel 3 and a tape fastener 4 attached to the side panel 3, in which the panel assemblies P are each folded along a virtual first line L1 extending in the longitudinal direction X so that the tape fastener 4 faces the side panel 3; a step of attaching the panel assemblies P to the diaper body 2 being carried, a folding step of folding each panel assembly P along a virtual second line L2 extending in the longitudinal direction X so that the panel assembly P, which has been folded along the first line L1, lies on the diaper body 2; and a folding-up step of folding up the diaper body 2 along a virtual third line L3 extending in the longitudinal direction X at a position that does not overlap the panel assemblies P, after the folding step.
DIAPER MANUFACTURING METHOD

TECHNICAL FIELD

[0001] The present invention relates to a diaper manufacturing method.

BACKGROUND ART

[0002] A diaper 1 having side panels (wing portions) provided on a diaper body 2 as shown in FIG. 5A is known in the prior art (see the first patent document).

[0003] In order to fold up and package the diaper 1, first, panel assemblies P are folded onto the diaper body 2 as shown in FIG. 5B along lines L11 shown in FIG. 5A. Then, the diaper body 2 is folded along lines L12 so as to be folded up as shown in FIG. 5C. The panel assembly P is formed by a side panel 3 and a tape fastener 4. The tape fastener 4 is formed by, for example, a male touch fastener, or the like.

CITATION LIST

PATENT DOCUMENT


SUMMARY OF INVENTION

[0005] However, because the panel assemblies P are elongated in the girth direction as shown in FIG. 5B, the tape fasteners 4 may also get folded when folding up the diaper body 2 along the lines L12, and since the tape fasteners 4 have high rigidity and are slippery, the line L12 warps and it is difficult to neatly fold up the diaper body 2.

[0006] It is therefore an object of the present invention to provide a diaper manufacturing method which allows a diaper to be folded up neatly.

[0007] In order to achieve the object, a diaper manufacturing method of the present invention is a method for manufacturing a diaper including: a diaper body including a front portion covering a front side of a wearer, a back portion covering a back side of the wearer, and a crotch portion between the front portion and the back portion; a pair of side panels secured respectively to side edge portions of the back portion opposing each other in a girth direction; and a tape fastener provided at each of end portions of the side panels in the girth direction, wherein each of the side panels is attached to the front portion via the tape fastener to thereby fasten the diaper around a torso of the wearer when the diaper is worn, the method comprising: a step of carrying the diaper body in a longitudinal direction perpendicular to the girth direction; a step of forming panel assemblies, each including each of the side panels and the tape fastener attached to each of the side panels, in which the panel assemblies are each folded along a virtual first line extending in the longitudinal direction so that the tape fastener faces each of the side panels; a step of attaching the panel assemblies to the diaper body being carried; a folding step of folding each of the panel assemblies along a virtual second line extending in the longitudinal direction so that each of the panel assemblies, which has been folded along the first line, lies on the diaper body; and a folding-up step of folding up the diaper body along a virtual third line extending in the longitudinal direction at a position that does not overlap (without overlapping) the panel assemblies, after the folding step, wherein the step of forming the panel assemblies, the step of attaching the panel assemblies, the folding step and the folding-up step are performed for each of a left side and a right side in the girth direction for each diaper body.

[0008] In the present invention, the panel assemblies elongated in the girth direction are pre-folded along the virtual first and second lines, the diaper body can be folded up along the virtual third line at a position that does not overlap (without overlapping) the panel assemblies. Therefore, since the tape fasteners which have high rigidity and are slippery are not folded along the third line, the third line (folding line) does not warp and it is possible to neatly fold up the diaper.

[0009] In the present invention, the diaper assembly may be folded along the first line before the attachment step.

[0010] In this embodiment, since the panel assembly is pre-folded before the attachment step, the fold is compact. Therefore, the manufacturing is easier as compared with a case where the panel assembly is folded after the attachment step (the step of attaching the panel assemblies).

[0011] In the present invention, the panel assemblies may each be folded in the step of forming panel assemblies so that a surface of the tape fastener on which a male touch fastener is formed and a skin-contact surface of the side panel face each other.

[0012] In this embodiment, if the folded tape fastener is a male touch fastener, the folded tape is tentatively fastened to the non-woven fabric of the side panel. Therefore, the state where the diaper is folded is more easily maintained.

[0013] In the present invention, the term “skin-contact surface” refers to the inner surface which directly or indirectly comes into contact with the skin of the wearer when the diaper is worn.

[0014] In the present invention, the panel assemblies may each be folded in the step of forming panel assembly so that an opposite surface of the tape fastener opposite to a surface thereof on which a male touch fastener is formed and a non-skin-contact surface of the side panel face each other.

[0015] In this embodiment, they are folded so that the opposite surface of the tape fastener opposite to the surface thereof on which the male touch fastener is formed and the non-skin-contact surface of the side panel face each other. Therefore, the male touch fastener of the tape fastener is exposed on the upper surface. Therefore, when the wearer wears the diaper, it is easier to hold the tape fastener and it is possible to easily unfold the folded diaper.

[0016] In the present invention, the term “non-skin-contact surface” refers to the outer surface which is opposite to the skin-contact surface and does not come into contact with the skin.

[0017] In order to achieve the object, another diaper manufacturing method is a method for manufacturing a diaper including: a diaper body including a front portion covering a front side of a wearer, a back portion covering a back side of the wearer, and a crotch portion between the front portion and the back portion; a pair of side flaps protruding in a girth direction from the back portion of the diaper body; and a tape fastener provided at each of end portions of the side flaps in the girth direction, wherein each of the side flaps is attached to the front portion via the tape fastener to thereby fasten the diaper around a torso of the wearer when the diaper is worn, the method comprising: a step of carrying the diaper body in a longitudinal direction perpendicular to the girth direction; a step of attaching the tape fastener to each of the side flaps; a first folding step of folding each of the side flaps or the tape fastener along a virtual first line extending in the longitudinal
direction so that the tape fastener faces each of the side flaps; a second folding step of folding each of the side flaps along a virtual second line extending in the longitudinal direction so that the side flaps lie on the diaper body, after the first folding step; and a folding-up step of folding up the diaper body along a virtual third line extending in the longitudinal direction at a position without overlapping the side flaps, wherein the step of attaching the tape fastener, the first folding step, the second folding step and the folding-up step are performed for each of a left side and a right side in the girth direction for each diaper body.

[0018] In the present invention, since the side flap and tape fastener portions elongated in the girth direction are prefixed along the first and second lines, the diaper body can be folded up along the third line at a position that does not overlap (without overlapping) the side flaps. Therefore, since the tape fasteners which have high rigidity and are slippery are not folded along the third line, the third line (folding line) does not warp and it is possible to neatly fold up the diaper body.

[0019] In the present invention, the side flap or the tape fastener may be folded in the first folding step so that a surface of the tape fastener on which a male touch fastener is formed and a skin-contact surface of the side flap face each other.

[0020] In this embodiment, if the folded tape fastener is a male touch fastener, the male touch fastener is tentatively fastened to the non-woven fabric of the side panel. Therefore, the folded state is more easily maintained.

[0021] In the present invention, the side flap or the tape fastener may be folded in the first folding step so that an opposite surface of the tape fastener opposite to a surface thereof on which a male touch fastener is formed and a non-skin-contact surface of the side flap face each other.

[0022] In this embodiment, the side flap or the tape fastener is folded so that the opposite surface of the tape fastener opposite to the surface thereof on which the male touch fastener is formed and the non-skin-contact surface of the side flap face each other. Therefore, the male touch fastener of the tape fastener is exposed on the upper surface. Therefore, when the wearer wears the diaper, it is easier to hold the tape fastener and it is possible to easily unfold the folded diaper.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] FIGS. 1A and 1B are schematic plan views showing a diaper manufacturing method according to Embodiment 1 of the present invention.

[0024] FIGS. 2A, 2C and 2E are schematic plan views showing the diaper manufacturing method, and FIGS. 2B, 2D and 2F are schematic cross-sectional views thereof, respectively.

[0025] FIGS. 3A, 3B and 3C are schematic plan views showing a diaper manufacturing method according to Embodiment 3 of the present invention.

[0026] FIGS. 4A, 4C and 4E are schematic plan views showing the diaper manufacturing method, and FIGS. 4B, 4D and 4F are schematic cross-sectional views thereof, respectively.

[0027] FIGS. 5A, 5B and 5C are schematic plan views showing a conventional diaper manufacturing method.

[0028] FIG. 6A is a schematic plan view showing a diaper according to Embodiment 1 of the present invention, and FIG. 6B is a schematic front view showing the diaper in use.

[0029] FIGS. 7A and 7B are schematic plan views showing the diaper manufacturing method according to Embodiment 2 of the present invention.

[0030] FIGS. 8A, 8C and 8F are schematic plan views showing the diaper manufacturing method, and FIGS. 8B, 8D and 8F are schematic cross-sectional views thereof, respectively.

[0031] FIGS. 9A, 9B and 9C are schematic plan views showing the diaper manufacturing method according to Embodiment 4 of the present invention.

[0032] FIGS. 10A, 10C and 10F are schematic plan views showing the diaper manufacturing method, and FIGS. 10B, 10D and 10F are schematic cross-sectional views thereof, respectively.

[0033] The present invention will be understood more clearly from the following description of preferred embodiments taken in conjunction with the accompanying drawings. Note however that the embodiments and the drawings are merely illustrative and should not be taken to define the scope of the present invention. The scope of the present invention shall be defined only by the appended claims. In the accompanying drawings, like reference numerals denote like components throughout the plurality of figures.

EMBODIMENT 1

[0034] Embodiments of the present invention will now be described with reference to the drawings.

[0035] FIGS. 1, 2 and 6 show Embodiment 1.

[0036] Diaper 1.

[0037] As shown in FIG. 6A, a diaper 1 of Embodiment 1 includes a diaper body 2 and a pair of panel assemblies P. The diaper body 2 includes a front portion 20 covering the front side of the wearer, a back portion 21 covering the back side of the wearer, and a crotch portion 22 between the front portion 20 and the back portion 21.

[0038] Each panel assembly P includes the side panel 3 and the tape fastener 4, and the side panel 3 of the panel assemblies P are secured to end portions 21a of the back portion 21 opposing each other in a girth direction Y. For example, the side panel 3 is formed by a non-woven fabric, and the tape fastener 4 is formed by a male touch fastener.

[0039] A surface 4a of the tape fastener 4 on which the male touch fastener is formed is dotted.

[0040] As shown in FIG. 6B, when the diaper 1, the side panels 3 are attached to the front portion 20 of the diaper body 2 via the tape fasteners 4 to thereby fasten the diaper 1 around the torso of the wearer, thus securing the diaper 1.

[0041] Next, a method for manufacturing the diaper 1 will be described.

[0042] Step of carrying diaper body 2.

[0043] As shown in FIG. 1A, the diaper bodies 2 are carried in the form of a continuous web W in which a plurality of diaper bodies 2 are continuous together (not separated from one another). The continuous web W is formed by a continuous laminate sheet, for example, and is carried in a longitudinal direction (carrying direction) X generally perpendicular to the girth direction Y.

[0044] The diaper body 2 is provided with an absorbent body 5 covering a crotch of the wearer, etc. A female touch fastener 6, hatched with broken lines, may be provided on the side of a non-skin-contact surface (outer surface) 2b of the front portion 20 of the diaper body 2.

[0045] Step of forming panel assembly P.

[0046] On the other hand, the panel assemblies P, each including the side panel 3 and the tape fastener 4 attached to the side panel 3, are separately carried.
The panel assemblies P are folded along a pair of virtual first lines L1 extending in the longitudinal direction X of the side panels 3 so that the surface 4a on which the male touch fastener 4 is formed and a skin-contact surface (inner surface) 3a of the side panel 3 face each other.

While the first lines L1 are herein set on the tape fasteners 4 in FIG. 1A, they may be set on the side panels 3. Note that in addition to the male touch fastener, the tape fastener 4 may include a tackifier applied thereon, for example. In such a case, it is preferred that a release sheet (not shown) is inserted between the side panel 3 and the tape fastener 4 in order to prevent the tape fastener 4 from adhering to the side panel 3 when the panel assembly is folded. In such a case, the side panel 3 which includes the release sheet bonded to the skin-contact surface 3a thereof is used.

Separating step:

The continuous web W is cut into individual diaper bodies 2 along cut-off lines CL generally parallel to the girth direction Y.

Note that the diaper body 2 may be provided with around-leg portions 23 which are cut so as to conform to leg portions of the wearer. The around-leg portions 23 may be either provided with elastic members formed by rubber threads, for example, so that the around-leg portions 23 conform to the legs of the wearer when the diaper is worn.

The front portion 20 and the back portion 21 of the diaper body 2 may be provided with an elastic member for making the diaper 1 fit the wearer. The elastic member may be, for example, a plurality of rubber threads or rubber tapes, a material including a film or a thermoplastic resin, or the like.

Step of attaching panel assembly P to diaper body 2:

On the other hand, an adhesive is applied on the opposing side edges portions 21a on the side of the non-skin-contact surface 2b of the back portion 21 of the diaper body 2 shown in FIG. 1B. As shown in FIG. 1B, the end portions of the pair of side panels 3 are attached to the side edges portions 21a, opposing each other in the girth direction Y of the back portion 21 of the diaper body 2. That is, the pre-folded panel assemblies P are attached to the diaper body 2.

Note that the panel assemblies P may be folded along the first lines L1 after the attachment step.

Folding step:

After the panel assemblies P are attached to the diaper body 2, the side panels 3 of the panel assemblies P are each folded in two as shown in FIG. 2A along a virtual second line L2 extending in the longitudinal direction X so that the panel assembly P, which has been folded along the first line L1 (FIG. 1A), lies on the diaper body 2. The second line L2 of the panel assembly P is attached to the tip portion of the folded tape fastener 4 and the side edge portion 21a of the diaper body 2, and between the tip portion of the folded tape fastener 4 and the side edge portion 21a.

Through the folding step, the panel assemblies P are folded so as to lie on the back portion 21 of the diaper body 2 as shown in FIGS. 2A and 2B. That is, they are folded so that a reverse surface (outer surface) 4b of the tape fastener 4 and a skin-contact surface 2a of the diaper body 2 face each other as shown in FIG. 2B.

Folding-up step:

After the folding step, one side of the diaper body 2, to which one of the panels assemblies P in the girth direction Y is attached, is folded up as shown in FIGS. 2C and 2D along one of virtual third lines L3 extending in the longitudinal direction X shown in FIG. 2A. That is, as shown in FIG. 2D, it is folded so that a non-skin-contact surface 3b of one of the side panels 3 and the skin-contact surface 2a of the diaper body 2 face each other.

Then, the other side of the diaper body 2, to which the other one of the panel assemblies P in the girth direction Y is attached, is folded up as shown in FIGS. 2E and 2F along the other one of the virtual third lines L3 extending in the longitudinal direction X shown in FIG. 2C. That is, as shown in FIG. 2F, it is folded so that the non-skin-contact surface 3b of the other one of the side panels 3 and the non-skin-contact surface 2b of the folded diaper body 2 face each other.

Herein, the opposing third lines L3 are respectively set at positions generally 1/2 from the left and right ends of the diaper body 2 in the girth direction Y so that they do not overlap the panel assemblies P and so that the diaper body 2 is as compact as possible in the girth direction Y.

Through the step of folding up the diaper body 2, the diaper 1 is folded up as shown in FIG. 2I.

As described above, the step of forming the panel assembly P, the attachment step, the folding step, and the folding-up step are performed for each of the left side and the right side in the girth direction Y for each diaper body 2.

Note that the diaper 1 of FIG. 2E is folded in two along a line extending in the girth direction.

EMBODIMENT 2

FIGS. 7 and 8 show Embodiment 2.

Step of forming panel assembly P:

As shown in FIG. 7A, in the step of forming the panel assembly P, the panel assemblies P, each including the side panel 3 and the tape fastener 4 attached to the side panel 3, are separately carried.

The panel assemblies P are folded along a pair of virtual first lines L1 extending in the longitudinal direction X of the side panels 3.

They are folded so that the opposite surface 4b of the tape fastener 4 opposite to the surface 4a thereof on which the male touch fastener is formed and the non-skin-contact surface 3b of the side panel 3 face each other.

Note that while the first lines L1 are set on the tape fastener 4 in FIG. 7A, they may be set on the side panels 3.

Then, the continuous web W is cut into individual diaper bodies 2 along the cut-off lines CL generally parallel to the girth direction Y. On the other hand, as shown in FIG. 7B, the panel assemblies P are attached to the opposing side edge portions 21a on the side of the non-skin-contact surface 2b of the back portion 21 of the diaper body 2.

Folding step:

After the panel assemblies P are attached to the diaper body 2, the side panels 3 of the panel assemblies P are each folded in two as shown in FIG. 8A along a virtual second line L2 extending in the longitudinal direction X so that the panel assembly P, which has been folded along the first line L1 (FIG. 7A), lies on the diaper body 2.

Through the folding step, the panel assemblies P are folded so as to lie on the back portion 21 of the diaper body 2 as shown in FIGS. 8A and 8B. That is, they are folded so that the skin-contact surface 3a of the side panel 3 and the skin-contact surface 2a of the diaper body 2 face each other as shown in FIG. 8B. Thus, the surface 4a of the tape fastener 4 on which the male touch fastener is formed is exposed on the upper surface.
[0077] Folding-up step:

[0078] Then, the diaper body 2 is folded along the virtual third line L3 as shown in FIGS. 8C to 8F so that the diaper 1 is folded up as shown in FIG. 8E.

[0079] Other than this, the configuration is similar to that of Embodiment 1, and like elements are denoted by like reference numerals and will not be described below.

EMBODIMENT 3

[0080] FIGS. 3 and 4 show Embodiment 3.

[0081] Diaper 1:

[0082] The diaper 1 of Embodiment 3 is a so-called “T-shaped diaper”, and includes a pair of side flaps 2/formed integral with the diaper body 2, the side flaps 2/protruding in the girth direction Y from the back portion 21 of the diaper body 2A, as shown in FIG. 3B.

[0083] Next, a method for manufacturing the diaper 1 will be described.

[0084] Step of attaching tape fasteners 4 to side flaps 2/:

[0085] The tape fasteners 4 are attached to the end portions, opposing each other in the girth direction Y, of the side flaps 2/ of the diaper body 2A shown in FIG. 3B.

[0086] First folding step:

[0087] Then, the tape fastener 4 is folded along the virtual first line L1 extending in the longitudinal direction X so that the surface 4a of the tape fastener 4 on which the male touch fastener is formed and the skin-contact surface 2a of the side flap 2/ face each other.

[0088] Note that while the first line L1 is set on the tape fastener 4 in FIG. 3B, the first line L1 may be set on the side flap 2/ so that the side flap 2/ is folded.

[0089] Second folding step:

[0090] Then, as shown in FIG. 3C, the side flap 2/ is folded along the virtual second line L2 extending in the longitudinal direction X so that the side flap 2/ lies on the diaper body 2A. That is, as shown in FIGS. 4A and 4B, it is folded so that the upper surface (outer surface) of the tape fastener 4 and the skin-contact surface 2a of the diaper body 2A face each other.

[0091] Folding-up step:

[0092] After the second folding step, the diaper body 2A is folded up as shown in FIGS. 4C and 4D along one of the virtual third lines L3 shown in FIG. 4A. That is, it is folded so that the non-skin-contact surface (outer surface) of the side flap 2/ and the skin-contact surface 2a of the diaper body 2A face each other.

[0093] Then, the diaper body 2A is folded up as shown in FIGS. 4E and 4F along the other one of the virtual third lines L3 shown in FIG. 4C. The third lines L3 are respectively set at positions generally 1/3 from the left and right ends of the diaper body 2A, which has been folded in the second folding step, in the girth direction Y of the diaper body 2A so that they do not overlap the side flap 2/ and the tape fastener 4.

[0094] Through the step of folding up the diaper body 2A, the diaper 1 is folded up as shown in FIG. 4E.

EMBODIMENT 4

[0095] FIGS. 9 and 10 show Embodiment 4.

[0096] As shown in FIGS. 9A and 9B, the tape fasteners 4 are attached to the end portions, opposing each other in the girth direction Y, of the side flaps 2/ of the diaper body 2A.

[0097] First folding step:

[0098] Then, as shown in FIG. 9C, the tape fastener 4 is folded along the virtual first line L1 so that the opposite surface 4b of the tape fastener 4 opposite to the surface 4a thereof on which the male touch fastener is formed and the non-skin-contact surface 2b of the side flap 2/ face each other. Note that while the first line L1 is set on the tape fastener in FIG. 9B, the first line L1 may be set on the side flap 2/ so that the side flap 2/ is folded.

[0099] Second folding step:

[0100] Then, as shown in FIGS. 10A and 10B, the side flap 2/is folded along the virtual second line L2 (FIG. 9C) extending in the longitudinal direction X so that the side flap 2/ lies on the diaper body 2A. That is, the side flap 2/is folded along the line L2 so that the skin-contact surface of the side flap 2/ and the skin-contact surface of the diaper body 2A face each other. Thus, the surface 4a of the tape fastener 4 on which the male touch fastener is formed is exposed on the upper surface.

[0101] Folding-up step:

[0102] Then, as shown in FIGS. 10C to 10E, the diaper body 2A is folded up along the virtual third line L3 (FIG. 10A) so that the diaper 1 is folded up as shown in FIG. 10E.

[0103] Other than this, the configuration is similar to that of Embodiment 3, and like elements are denoted by like reference numerals and will not be described below.

INDUSTRIAL APPLICABILITY

[0104] The present invention is applicable to a diaper manufacturing method.

DESCRIPTION OF THE REFERENCE NUMERALS

[0105] 1: Diaper
[0106] 2A: Diaper body
[0107] 2/: Side flap
[0108] 3: Side panel
[0109] 4: Tape fastener
[0110] 20: Front portion
[0111] 21: Back portion
[0112] 22: Crotch portion
[0113] L1: Virtual first line
[0114] L2: Virtual second line
[0115] L3: Virtual third line
[0116] P: Panel assembly
[0117] X: Longitudinal direction
[0118] Y: Girth direction

1. A method for manufacturing a diaper comprising: a diaper body including a front portion covering a front side of a wearer, a back portion covering a back side of the wearer, and a crotch portion between the front portion and the back portion; a pair of side panels secured respectively to side edge portions of the back portion opposing each other in a girth direction; and a tape fastener provided at each of end portions of the side panels in the girth direction, wherein each of the side panels is attached to the front portion via the tape fastener to thereby fasten the diaper around a torso of the wearer when the diaper is worn, the method comprising:

a step of carrying the diaper body in a longitudinal direction perpendicular to the girth direction; a step of forming panel assemblies, each including each of the side panels and the tape fastener attached to each of the side panels, in which the panel assemblies are each folded along a virtual first line extending in the longitudinal direction so that the tape fastener faces each of the side panels;
a step of attaching the panel assemblies to the diaper body being carried;
a folding step of folding each of the panel assemblies along a virtual second line extending in the longitudinal direction so that each of the panel assemblies, which has been folded along the first line, lies on the diaper body; and
a folding-up step of folding up the diaper body along a virtual third line extending in the longitudinal direction at a position without overlapping the panel assemblies, after the folding step,
wherein the step of forming the panel assemblies, the step of attaching the panel assemblies, the folding step and the folding-up step are performed for each of a left side and a right side in the girth direction for each diaper body.

2. A method for manufacturing a diaper according to claim 1, wherein the panel assemblies are folded along the first line before the step of attaching the panel assemblies.

3. A method for manufacturing a diaper according to claim 1, wherein the panel assemblies are each folded in the step of forming panel assemblies so that a surface of the tape fastener on which a male touch fastener is formed and a skin-contact surface of each of the side panels face each other.

4. A method for manufacturing a diaper according to claim 1, wherein the panel assemblies are each folded in the step of forming panel assemblies so that an opposite surface of the tape fastener opposite to a surface thereof on which a male touch fastener is formed and a non-skin-contact surface of each of the the side panels face each other.

5. A method for manufacturing a diaper comprising: a diaper body including a front portion covering a front side of a wearer, a back portion covering a back side of the wearer, and a crotch portion between the front portion and the back portion; a pair of side flaps protruding in a girth direction from the back portion of the diaper body; and a tape fastener provided at each of end portions of the side flaps in the girth direction, wherein each of the side flaps is attached to the front portion via the tape fastener to thereby fasten the diaper around a torso of the wearer when the diaper is worn, the method comprising:
a step of carrying the diaper body in a longitudinal direction perpendicular to the girth direction;
a step of attaching the tape fastener to each of the side flaps;
a first folding step of folding each of the side flaps or the tape fastener along a virtual first line extending in the longitudinal direction so that the tape fastener faces each of the side flaps;
a second folding step of folding each of the side flaps along a virtual second line extending in the longitudinal direction so that the side flaps lie on the diaper body, after the first folding step; and
a folding-up step of folding up the diaper body along a virtual third line extending in the longitudinal direction at a position without overlapping the side flaps, wherein the step of attaching the tape fastener, the first folding step, the second folding step and the folding-up step are performed for each of a left side and a right side in the girth direction for each diaper body.

6. A method for manufacturing a diaper according to claim 5, wherein each of the side flaps or the tape fastener is folded in the first folding step so that a surface of the tape fastener on which a male touch fastener is formed and a skin-contact surface of each of the side flaps face each other.

7. A method for manufacturing a diaper according to claim 5, wherein each of the side flaps or the tape fastener is folded in the first folding step so that an opposite surface of the tape fastener opposite to a surface thereof on which a male touch fastener is formed and a non-skin-contact surface of each of the side flaps face each other.

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