

Description

Field of the Invention

This invention relates to protective, absorbent liners for undergarments and more particularly, to shaping sanitary napkins for folding side panels around the edges of a crotch portion of a panty.

Background of the Invention

The loss of the protection expected of a sanitary napkin product may be caused by a lack of close contact with the body of the wearer, as well as a failure to provide adequate coverage over the requisite area of an undergarment. Those skilled in the art of sanitary protection have attempted to overcome these problems by introducing absorbent products having members disposed longitudinally in order to attempt to create raised edge portions adjacent a central absorbent area. These raised edge barriers are intended to act as barriers against lateral leakage. For example, McFarland, U.S. Patent No. 4,579,556; Widlund, et al., EPO 0091412, filed March 17, 1983; and Mokry, EPO 0155515, filed February 2, 1985, and Van Tilburg, U.S. Patent No. 4,589,876 have made attempts to solve failure problems using such means.

Some of the more recent napkin designs, in order to address further the lateral leakage problem, have included side panels, flaps or wings that extend laterally from the longitudinal sides of the central absorbent. Mattingly, U.S. Patent No. 4,608,047, and McNair, U.S. Patent No. 4,285,343. These products were designed to protect undergarments by providing side extensions that wrap around the crotch of an undergarment, such as a panty, to prevent body fluids from seeping over the longitudinal sides and staining the panty. The flaps of these napkins preferably have adhesive disposed on their body fluid impervious surfaces for attaching them to an undergarment. The McNair patent, for example, describes the use of adhesive under the central absorbent which is exposed by removing release paper releasably attached to the adhesive. The napkin is then attached to the crotch portion of the undergarment. The user removes the release paper from the adhesive on each of flaps and attaches the flaps to the underside surface of the undergarment. Attaching the flaps in this fashion, however, is known to be a time-consuming and tedious task. The procedure is, moreover, conducive to misplacement of the product.

Accordingly, a need exists for a sanitary napkin having panty protecting flaps which can be adhered to and removed from the panty more conveniently.

It is, therefore, an object of this invention to provide a winged sanitary napkin that is relatively easy to remove after use compared to those of the prior art.

It is another object of this invention to provide a

winged sanitary napkin having resilient hinge portions which enable an adhesive-free placement of the flaps around the sides of the crotch portion of a panty.

With these and other objects in view, which will become apparent to one skilled in the art as the description proceeds, this invention resides in the novel construction, combination, arrangement of parts and methods substantially as hereinafter described and more particularly defined in the attached claims

Summary of the Invention

Winged sanitary napkins having a body facing surface, an oppositely disposed undergarment facing surface, longitudinal sides and flaps attachably disposed along the longitudinal sides adjacent to a central absorbent element are provided having specially designed hinge means located along at least one longitudinal side. The hinge means serve to dispose at least one flap in a pre-folded flexible position such that the napkin can be attached to the undergarment of a user without requiring positioning adhesive on the flaps. In the napkins of this invention at least one flap comprises hinge means formed of a resilient material, the hinge means holding said flap in a pre-folded flexible position in which said flap forms a sufficiently acute angle with the undergarment facing side of the central absorbent element to allow the flap to overlap a side of a crotch portion of the undergarment.

The products of this invention are first attached to a panty with positioning adhesive. The flaps of the products are then unfolded to allow the crotch of the panty to fit to the adhesive-coated, garment-facing side of the napkin between the flaps.

The attachment systems provided by this invention minimize the staining of the panty due to increased undergarment coverage by the flaps which wrap around the crotch of the undergarment. The products of this invention also have the advantage of increasing discretion, by eliminating release paper which otherwise would need to be discarded. In preferred embodiments of this invention, the body facing side of the flaps have some absorbent capacity, while the undergarment facing side of these flaps can be made with a body fluid-impervious material.

Brief Description of the Drawings

The accompanying drawings illustrate a complete embodiment of the invention according to the best mode for the best practical application of the principles thereof, and in which:

FIG. 1: is a planar view of the undergarment facing side of a sanitary napkin embodiment of this invention illustrating the flaps disposed to form angles with the undergarment facing side of the napkin;

FIG. 2: is a transverse cross-sectional view,

taken through line 2-2 of FIG. 1, illustrating the preferred acute angles formed by the flaps and the undergarment facing side of the napkin's absorbent element;

FIG. 3 : is a perspective view of the application of the sanitary napkin of FIG. 1 disposed onto a crotch portion of an undergarment.

Description of the Invention

With reference to the drawings, and particularly FIGS. 1 and 2 thereof, there is shown a preferred sanitary napkin 100 having an absorbent element with longitudinally extending sides, transverse ends, a body-facing side 30 and an undergarment facing side 20. Flaps 10 of this embodiment extend laterally from each of the longitudinal sides of the absorbent element and at least one of these flaps comprises a hinge means for disposing said flap or flaps in angular relation to the undergarment facing side 20 of the absorbent element. Preferably, both of the flaps include hinge means, which enable both flaps to overlap a corresponding side portion of the crotch of an undergarment.

Hinge means 50 can be used to dispose the flaps 10 in angular relation to the undergarment facing side 20 of the absorbent element in angles α of less than 90, 45, 30 and, most preferably, less than 15 degrees. The hinge means of this invention can be formed from a variety of resilient materials, or materials which can be made resilient via heat treatment, mechanical or chemical means. In one preferred embodiment, the hinge means comprises a resilient polymeric material, preferably a bicomponent fiber, such as Enka™, in combination with a Hollofil™ polyester product or similar polyester-containing fiber material. The hinge means can also comprise other thermoplastic materials, such as Volara™ (type E) from Voltex, Inc. Most preferably, the chosen material is heat cured and compressed Enka™-Hollofil™ the material in which the components are present in a 1 : 1 ratio. Heat curing and compression serve to obtain the desired angular configuration. The hinge means of this invention may be integral with flaps along the longitudinally extending sides or they may be of separate construction.

Alternatively, a biased hinge for this invention by introducing elastic strip materials, preferably disposed on the body fluid impervious surface. These strips can be arranged transversely across the flaps and the central absorbent element, so as to provide a "hinging effect" to the flaps 10. One preferred design illustrative of this concept is an example employing laterally disposed elastic strips of Fullastic™ material by Fuller, Inc. The hinge means of this invention may also be made by incorporating one or more thin metal or bendable plastic wires transversely across the flaps and central absorbent element and bending it to

the desired angle.

Pressure sensitive attachment adhesive may, optionally, be applied to undergarment facing side of the sanitary napkins of this invention. Attachment adhesives are well known to those of skill in the art. Preferably, such adhesive is applied in strips along the longitudinal axis of the undergarment facing side of the sanitary napkin. Such adhesive is, preferably, sufficiently strong to adhere to the undergarment, but not so strong that it cannot be removed from the undergarment when the sanitary napkin is removed.

Adhesive compositions suitable for sanitary napkins, include, for example, water-based, pressure-sensitive adhesives such as acrylate adhesives. Alternatively, the adhesive may comprise rapid setting thermoplastic "hot-melt", rubber adhesives, or two-sided adhesive tape. As is customary in the art, a preferred kraft paper release strip can also be applied to these adhesive compositions to protect them prior to use.

The napkins of this invention can be disposed onto an undergarment by folding the flaps 10 over a crotch portion of an undergarment and adhering strips of attachment adhesive. The flaps are folded over the undergarment by laterally extending them and then allowing them to fold over the crotch portion of the undergarment.

The absorbent element can contain resilient material known to those of skill in the art for enabling napkin 100 to bend easily without excessive distortion. Such materials include compacted cellulosic fibers and hydrocolloidal material such as those described by Kopolow, U.S. Patent No. 4,551,142, which is herein incorporated by reference. The preferred absorbent element can be approximately 101.6-304.8 mm (4-12 inches) long, preferably about 203.2-279.4 mm (8-11 inches). It may contain a core, preferably made of loosely associated absorbent hydrophilic materials such as cellulose fibers, wood pulp, regenerated cellulose or cotton fibers, a blend of pulp and other resilient fibers including fibers which are fluid repellant, and/or other materials generally known in the art. The absorbent element may be either rectangular or shaped.

As is customary in the art, the body-facing side of napkin 100 is a body fluid pervious surface. Such body fluid pervious surfaces can be made of relatively non-absorbing fluid-pervious material. This material provides increased comfort and conformability and directs fluid to an underlying layer, for example, wood pulp, which retains such fluid. Furthermore, the body fluid pervious surface should retain little or no fluid in its structure to provide a relatively dry surface next to the skin. Preferably, the body fluid pervious surface is a single, rectangular sheet of material having a width sufficient to cover the body-facing side of the absorbent element. Preferably, the body fluid pervious surface is longer than the absorbent element so as to

form end tabs, which may be sealed with other pervious or non-pervious layers to fully enclose the absorbent element. This surface may be woven or non-woven material which can be penetrated by body fluid. The fluid pervious surface is preferably made of fibers or filaments of thermoplastic polymers such as polyethylene or polypropylene or apertured polymeric film.

Underlying the absorbent element may be another layer of absorbent material to provide additional resiliency to the product. This layer may extend beyond the longitudinal sides of the absorbent core to entrap any body fluid which escapes from the sides of the absorbent element. This layer may also be substantially wider than the core of the absorbent element and may extend into the flaps. The absorbent layer may comprise a thin, absorbent layer of material such as tissue, fabric, or the like, made of cellulosic fibers. Because such material is provided as a safety measure and is only required in order to contain escaped fluid, it need not be extremely absorbent, and, in fact, may be composed of a capillary or cellular system, including hydrophobic material and the like. However, the preferred material is a hydrophilic fabric comprised of cellulosic fibers such as wood pulp tissue or other suitable hydrophilic woven or non-woven material. This preferred tissue has the advantage of providing resiliency and conformability to the product.

The sanitary napkins of this invention can further include a body-fluid impervious surface on the undergarment-facing side. Such an impervious surface will, preferably, permit passage of air and moisture vapor to the outer surface while blocking the passage of fluid. The impervious surface may be fastened to a core or absorbent element, or to a core wrapped in a pervious surface cover by heat sealing or by adhesive. The impervious surface may be made of any thin, flexible, body fluid impermeable material such as a polymeric film, for example, polyethylene, polypropylene, cellophane or even a normally fluid pervious material that has been treated to be impervious, such as impregnated fluid repellent paper or non-woven fabric material. Most preferably, the impervious surfaces include a plastic film of polyethylene or a bicomponent film such as an ethylvinylacetate/polyethylene coextruded film.

The preferred expandable flap 10 of this invention should be made of a stretchable, flexible material. Preferably, flap 10 does not contain absorbent pulp materials. Flap 10 may also include a body fluid impervious backing such as the materials described above in connection with the body fluid-impervious surfaces for the undergarment facing side of the absorbent core. Flap 10 may have a body fluid pervious cover, and absorbent tissue disposed between the cover and backing layers. In addition, flaps 10 of this invention preferably contain absorbent tissue with sufficient capillary action to retain small quantities of

liquid. This tissue can be heat sealed or adhesively sealed around the edges of the flap 10 with the preferred impervious backings and body fluid pervious covers of the flaps 10 to form absorbent areas. The flaps can, therefore, act as body fluid reservoirs to aid in preventing failures.

From the foregoing it can be realized that this invention provides facilitated application of winged sanitary napkins. Flexible hinge means are readily expanded during application and enable the flaps to lie comfortably around the crotch of the wearer's undergarment without the inconvenience of additional adhesive placement. Although various embodiments have been illustrated, this was for the purpose of describing, but not limiting, the invention. Various modifications, which will become apparent to one skilled in the art, are within the scope of this invention described in the attached claims.

Claims

1. A sanitary napkin comprising :

- (a) an absorbent element having longitudinally extending sides, transverse ends, a body-facing side (30) and an undergarment-facing side (20) and
- (b) flaps (10) extending laterally from each of the longitudinal sides of the absorbent element, at least one of the flaps (10) comprising hinge means (50) for disposing the flap (10) in acute angular relation with the undergarment-facing side (20) of the absorbent element,

characterized in that at least one of the flaps (10) comprises hinge means (50) formed of a resilient material, the hinge means holding the flap in a prefolded flexible position in which the flap forms an acute angle with the undergarment-facing side (20) of the absorbent element.

2. A sanitary napkin of claim 1 wherein both of said flaps (10) comprise hinge means (50) for disposing said flaps (10) in angular relation with said undergarment facing side (20) of said absorbent element.

3. The sanitary napkin of claim 1 wherein said flap is disposed to form an angle sufficiently acute to wrap around a side of a crotch portion of an undergarment.

4. The sanitary napkin of claim 3 wherein said angle is less than about 90°.

5. The sanitary napkin of claim 3 wherein said angle is less than about 45°.

6. The sanitary napkin of claim 3 wherein said angle is less than about 30°.

7. The sanitary napkin of claim 3 wherein said angle is less than about 15°.

8. The sanitary napkin of claim 4 wherein said hinge means comprises a resilient polymeric material.

form end tabs, which may be sealed with other pervious or non-pervious layers to fully enclose the absorbent element. This surface may be woven or non-woven material which can be penetrated by body fluid. The fluid pervious surface is preferably made of fibers or filaments of thermoplastic polymers such as polyethylene or polypropylene or apertured polymeric film.

Underlying the absorbent element may be another layer of absorbent material to provide additional resiliency to the product. This layer may extend beyond the longitudinal sides of the absorbent core to entrap any body fluid which escapes from the sides of the absorbent element. This layer may also be substantially wider than the core of the absorbent element and may extend into the flaps. The absorbent layer may comprise a thin, absorbent layer of material such as tissue, fabric, or the like, made of cellulosic fibers. Because such material is provided as a safety measure and is only required in order to contain escaped fluid, it need not be extremely absorbent, and, in fact, may be composed of a capillary or cellular system, including hydrophobic material and the like. However, the preferred material is a hydrophilic fabric comprised of cellulosic fibers such as wood pulp tissue or other suitable hydrophilic woven or non-woven material. This preferred tissue has the advantage of providing resiliency and conformability to the product.

The sanitary napkins of this invention can further include a body-fluid impervious surface on the undergarment-facing side. Such an impervious surface will, preferably, permit passage of air and moisture vapor to the outer surface while blocking the passage of fluid. The impervious surface may be fastened to a core or absorbent element, or to a core wrapped in a pervious surface cover by heat sealing or by adhesive. The impervious surface may be made of any thin, flexible, body fluid impermeable material such as a polymeric film, for example, polyethylene, polypropylene, cellophane or even a normally fluid pervious material that has been treated to be impervious, such as impregnated fluid repellent paper or non-woven fabric material. Most preferably, the impervious surfaces include a plastic film of polyethylene or a bicomponent film such as an ethylvinylacetate/polyethylene coextruded film.

The preferred expandable flap 10 of this invention should be made of a stretchable, flexible material. Preferably, flap 10 does not contain absorbent pulp materials. Flap 10 may also include a body fluid impervious backing such as the materials described above in connection with the body fluid-impervious surfaces for the undergarment facing side of the absorbent core. Flap 10 may have a body fluid pervious cover, and absorbent tissue disposed between the cover and backing layers. In addition, flaps 10 of this invention preferably contain absorbent tissue with sufficient capillary action to retain small quantities of

liquid. This tissue can be heat sealed or adhesively sealed around the edges of the flap 10 with the preferred impervious backings and body fluid pervious covers of the flaps 10 to form absorbent areas. The flaps can, therefore, act as body fluid reservoirs to aid in preventing failures.

From the foregoing it can be realized that this invention provides facilitated application of winged sanitary napkins. Flexible hinge means are readily expanded during application and enable the flaps to lie comfortably around the crotch of the wearer's undergarment without the inconvenience of additional adhesive placement. Although various embodiments have been illustrated, this was for the purpose of describing, but not limiting, the invention. Various modifications, which will become apparent to one skilled in the art, are within the scope of this invention described in the attached claims.

Claims

1. A sanitary napkin comprising :

- (a) an absorbent element having longitudinally extending sides, transverse ends, a body-facing side (30) and an undergarment-facing side (20) and
- (b) flaps (10) extending laterally from each of the longitudinal sides of the absorbent element, at least one of the flaps (10) comprising hinge means (50) for disposing the flap (10) in acute angular relation with the undergarment-facing side (20) of the absorbent element,

characterized in that at least one of the flaps (10) comprises hinge means (50) formed of a resilient material, the hinge means holding the flap in a prefolded flexible position in which the flap forms an acute angle with the undergarment-facing side (20) of the absorbent element.

2. A sanitary napkin of claim 1 wherein both of said flaps (10) comprise hinge means (50) for disposing said flaps (10) in angular relation with said undergarment facing side (20) of said absorbent element.

3. The sanitary napkin of claim 1 wherein said flap is disposed to form an angle sufficiently acute to wrap around a side of a crotch portion of an undergarment.

4. The sanitary napkin of claim 3 wherein said angle is less than about 90°.

5. The sanitary napkin of claim 3 wherein said angle is less than about 45°.

6. The sanitary napkin of claim 3 wherein said angle is less than about 30°.

7. The sanitary napkin of claim 3 wherein said angle is less than about 15°.

8. The sanitary napkin of claim 4 wherein said hinge means comprises a resilient polymeric material.



9. The sanitary napkin of claim 8 wherein said resilient polymeric material comprises a thermoplastic fiber.

10. The sanitary napkin of claim 9 wherein said resilient polymeric material comprises hollow polyester fibers.

11. The sanitary napkin of claim 8 wherein said resilient polymeric material is heat cured and compressed to form said angle.

12. The sanitary napkin of claim 4 wherein said hinge means (50) comprises at least one elastic strip disposed between said absorbent element and said flaps.

13. The sanitary napkin of claim 11 wherein said elastic strip is disposed on an undergarment facing material of said napkin.

14. A method of applying a sanitary napkin to an undergarment, comprising :

- a) providing a sanitary napkin having an absorbent element having longitudinally extending sides, transverse ends, a body-facing side and an undergarment-facing side, the napkin further including flaps extending laterally from each of the longitudinal sides of the absorbent element, the flaps comprising hinge means for disposing each of the flaps in angular relation with the undergarment-facing side of the absorbent element,
- b) providing an undergarment and disposing the undergarment facing side of the sanitary napkin on to said undergarment, and
- c) folding the flaps over a crotch portion of the undergarment whereby the flaps are laterally extended prior to allowing them to fold over an outside portion of the undergarment,

characterized in that a sanitary napkin (100) is used, in which at least one of the flaps (10) comprises hinge means (50) formed of a resilient material, the hinge means holding the flap in a prefolded flexible position in which the flap forms an acute angle with the undergarment-facing side (20) of the absorbent element.

15. The method of claim 14, wherein a sanitary napkin is used in which the flaps (10) are disposed to form an angle with the undergarment-facing side (20) of the absorbent element of less than about 45°.

16. The method of claim 14 wherein a sanitary napkin is used in which the flaps (10) are disposed to form an angle with the undergarment-facing side (20) of the absorbent element of less than about 15°.

17. The method of claim 14 or 15 wherein a sanitary napkin is used in which the hinge means (50) comprises a heat-treated thermoplastic.

Patentansprüche

1. Hygienische Binde, bestehend aus :

- (a) einem absorbierenden Element mit sich längs erstreckenden Seiten, querverlaufenden Enden, einer Seite (30), die einem Körper zugekehrt ist und einer Seite (20), die einem Unterwäschestück zugekehrt ist, und
- (b) Laschen (10), die sich seitlich von jeder der Längsseiten des absorbierenden Elements erstrecken, wobei mindestens eine der Laschen ein Scharnier (50) zur Anordnung der Lasche (10) in einem spitzen Winkel zu der dem Unterwäschestück zugekehrten Seite (20) des absorbierenden Elements aufweist, dadurch gekennzeichnet, daß mindestens eine der Laschen (10) ein Scharnier (50) umfaßt, das aus einem elastischen Material besteht, wobei das Scharnier die Laschen in einer vorgefalteten, flexiblen Stellung hält, in der die Laschen einen spitzen Winkel mit der dem Unterwäschestück zugekehrten Seite (20) des absorbierenden Elements bildet.

2. Hygienische Binde nach Anspruch 1, bei der beide Laschen (10) das Scharnier (50) zur Anordnung der Laschen (10) im spitzen Winkel zu der dem Unterwäschestück zugekehrten Seite (20) des absorbierenden Elements umfassen.

3. Hygienische Binde nach Anspruch 1, bei der die Laschen zur Bildung eines ausreichend spitzen Winkels für die Umhüllung einer Seite eines Schritteils eines Unterwäschestücks angeordnet sind.

4. Hygienische Binde nach Anspruch 3, bei der der Winkel kleiner als etwa 90° ist.

5. Hygienische Binde nach Anspruch 3, bei der der Winkel kleiner als etwa 45° ist.

6. Hygienische Binde nach Anspruch 3, bei der der Winkel kleiner als etwa 30° ist.

7. Hygienische Binde nach Anspruch 3, bei der der Winkel kleiner als etwa 15° ist.

8. Hygienische Binde nach Anspruch 4, bei der das Scharnier aus einem elastischen, polymeren Material besteht.

9. Hygienische Binde nach Anspruch 8, bei der das elastische, polymere Material eine thermoplastische Faser umfaßt.

10. Hygienische Binde nach Anspruch 9, bei der das elastische, polymere Material hohle Polyesterfasern umfaßt.

11. Hygienische Binde nach Anspruch 8, bei der das elastische, polymere Material zur Bildung des Winkels unter Einwirkung von Wärme ausgehärtet sowie komprimiert ist.

12. Hygienische Binde nach Anspruch 4, bei der das Scharnier (50) aus mindestens einem elastischen Streifen besteht, der zwischen dem absorbierenden



Element und den Laschen angeordnet ist.

13. Hygienische Binde nach Anspruch 11, bei der der elastische Streifen auf einem dem Unterwäschestück zugekehrten Material der Binde angeordnet ist.

14. Verfahren zum Aufbringen einer hygienischen Binde auf einem Unterwäschestück, bestehend aus :

- (a) dem Zurverfügungstellen einer hygienischen Binde mit einem absorbierenden Element, das sich längs erstreckende Seiten, quer verlaufende Enden, eine dem Körper zugekehrte Seite und eine dem Unterwäschestück zugekehrte Seite aufweist, wobei die Binde ferner Laschen umfaßt, die sich seitlich von jedem der Längsränder des absorbierenden Elements erstrecken und die Laschen ein Scharnier zur Anordnung jeder Lasche in Winkelbeziehung zu der dem Unterwäschestück zugekehrten Seite des absorbierenden Elements umfaßt,
- (b) dem Vorsehen eines Unterwäschestücks und der Anordnung der dem Unterwäschestück zugekehrten Seite der hygienischen Binde auf dem Unterwäschestück, und
- (c) Falten der Laschen über einen Schritteil des Unterwäschestücks, wodurch die Laschen seitlich erstreckt werden, bevor sie über einen außenseitigen Teil des Unterwäschestücks gefaltet werden können, dadurch gekennzeichnet, daß eine hygienische Binde (100) verwendet wird, bei der mindestens eine der Laschen (10) ein Scharnier (50) aus elastischem Material umfaßt, das die Laschen in einer vorgefalteten, flexiblen Stellung hält, in der die Laschen einen spitzen Winkel mit der dem Unterwäschestück zugekehrten Seite (20) des absorbierenden Elements bilden.

15. Verfahren nach Anspruch 14, bei dem eine hygienische Binde verwendet wird, deren Laschen (10) zur Bildung eines Winkels mit der dem Unterwäschestück zugekehrten Seite (20) des absorbierenden Elements von weniger als etwa 45° angeordnet sind.

16. Verfahren nach Anspruch 14, bei dem eine hygienische Binde verwendet wird, deren Laschen (10) zur Bildung eines Winkels mit der dem Unterwäschestück zugekehrten Seite (20) des absorbierenden Elements von weniger als etwa 15° angeordnet sind.

17. Verfahren nach Anspruch 14 oder 15, bei dem eine hygienische Binde verwendet wird, bei der das Scharnier (50) aus einem hitzebehandelten, thermoplastischen Material besteht.

Revendications

1. Une serviette hygiénique comprenant :

- (a) un élément absorbant ayant des côtés s'étendant de façon longitudinale, des extrémités transversales, un côté faisant face au corps (30) et un côté faisant face au sous-vêtement (20) et
- (b) des rabats (10) s'étendant de façon latérale à partir de chacun des côtés longitudinaux de l'élément absorbant, au moins l'un des rabats (10) comprenant des moyens de pattes (50) pour disposer le rabat (10) en relation d'angle aigu avec le côté faisant face au sous-vêtement (20) de l'élément absorbant,

caractérisée en ce qu'au moins l'un des rabats (10) comprend des moyens de pattes (50) formés en un matériau élastique, le moyen de patte maintenant le rabat dans une position souple pré-pliée, dans laquelle le rabat forme un angle aigu avec le côté faisant face au sous-vêtement (20) de l'élément absorbant.

2. Une serviette hygiénique selon la revendication 1, dans laquelle lesdits deux rabats (10) comprennent des moyens de pattes (50) pour disposer lesdits rabats (10) en relation d'angle avec ledit côté faisant face au sous-vêtement (20) dudit élément absorbant.

3. La serviette hygiénique selon la revendication 1, dans laquelle ledit rabat est disposé pour former un angle suffisamment aigu pour s'envelopper autour d'un côté d'une partie d'entre-jambes d'un sous-vêtement.

4. La serviettes hygiénique selon la revendication 3, dans laquelle ledit angle est inférieur à environ 90°.

5. La serviettes hygiénique selon la revendication 3, dans laquelle ledit angle est inférieur à environ 45°.

6. La serviettes hygiénique selon la revendication 3, dans laquelle ledit angle est inférieur à environ 30°.

7. La serviettes hygiénique selon la revendication 3, dans laquelle ledit angle est inférieur à environ 15°.

8. La serviette hygiénique selon la revendication 4, dans laquelle ledit moyen de patte comprend un matériau polymère élastique.

9. La serviette hygiénique selon la revendication 8, dans laquelle ledit matériau polymère élastique comprend une fibre thermoplastique.

10. La serviette hygiénique selon la revendication 9, dans laquelle ledit matériau polymère élastique comprend des fibres de polyester creuses.

11. La serviette hygiénique selon la revendication 8, dans laquelle ledit matériau polymère élastique est cuit et comprimé à la chaleur pour former ledit angle.

12. La serviette hygiénique selon la revendication 4, dans laquelle ledit moyen de patte (50) comprend au moins une bande élastique disposée entre ledit



élément absorbant et lesdits rabats.

13. La serviette hygiénique selon la revendication 11, dans laquelle ladite bande élastique est disposée sur un matériau faisant face au sous-vêtement de ladite serviette.

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14. Un procédé pour appliquer une serviette hygiénique à un sous-vêtement, comprenant :

- a) la fourniture d'une serviette hygiénique ayant un élément absorbant ayant des côtés s'étendant de façon longitudinale, des extrémités transversales, un côté faisant face au corps et un côté faisant face au vêtement, la serviette comprenant en outre des rabats qui s'étendent de façon latérale à partir de chacun des côtés longitudinaux de l'élément absorbant, les rabats comprenant des moyens de pattes pour disposer chacun des rabats en relation d'angle avec le côté faisant face au sous-vêtement de l'élément absorbant, 10 15 20
- b) la fourniture d'un sous-vêtement et le fait de déposer le côté faisant face au sous-vêtement de la serviette hygiénique sur ledit sous-vêtement, et
- c) le pliage des rabats par dessus une partie d'entre-jambes du sous-vêtement grâce auquel les rabats sont étendus latéralement avant qu'ils ne se plient par dessus une partie externe du sous-vêtement, 25 30

caractérisé en ce qu'on utilise une serviette hygiénique (100) dans laquelle au moins l'un des rabats (10) comprend des moyens de pattes (50) formés en matériau élastique, le moyen de pattes maintenant le rabat dans une position souple pré-pliée, dans laquelle le rabat forme un angle aigu avec le côté faisant face au sous-vêtement (20) de l'élément absorbant. 35

15. Le procédé selon la revendication 14, dans lequel on utilise une serviette, hygiénique dans laquelle les rabats (10) sont disposés pour former un angle inférieur à environ 45° avec le côté faisant face au vêtement (20) de l'élément absorbant. 40

16. Le procédé selon la revendication 14, dans lequel on utilise une serviette hygiénique dans laquelle les rabats (10) sont disposés pour former un angle inférieur à environ 15° avec le côté faisant face au vêtement (20) de l'élément absorbant. 45

17. Le procédé selon la revendication 14 ou 15, dans lequel on utilise une serviette hygiénique dans laquelle le moyen de patte (50) comprend un matériau thermoplastique traité à la chaleur. 50

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