

for the joint inven.
entorship on Patents Fo.
be filed (See Rule 15).
types of

RUMPLS COPY

REPLACED SHEETS SG

☒ Description : paged ...1... to paged ...9...
☒ Claim(s) : paged ...10... to paged ...11...
☒ Drawing(s) : paged ...11... to paged ...12...
☒ Abstract : paged ...12... to paged ...13...

SANITARY NAPKIN

BACKGROUND OF THE INVENTION

[Field of the Invention]

This invention relates to a sanitary napkin which is excellent in mounting ability.

[Description of the Prior Art]

It is generally said that a sanitary napkin provided with side flaps (or flaps) has such a function that the napkin can be stably fixed to a crotch portion of the shorts by the side flaps and the shorts are less likely to be soiled when it is compared with a sanitary napkin which has no side flaps. Sanitary napkins of this type are well accepted by many users because they apparently give such a psychological relief or easiness to the users that the napkins will provide the above-mentioned effect whether such effect is actually provided.

As typical printing matters in which a sanitary napkin provided with side flaps is described, there can be listed Japanese Early Laid-Open Patent Publication Nos. Sho 60-75058 and Sho 64-70050. The flaps of the conventional sanitary napkin described in those Publications are formed by integrating a backsheet and a topsheet.

However, the above-mentioned conventional sanitary napkin has the following shortcomings.

This Sheet Has Been Replaced



8-610000

(1) There is a possibility that discharged materia enter between the topsheet and the backsheet to cause leakage.

(2) Strength of the flap portion is so low as to be stretched and/or torn during mounting operation.

(3) Noises are likely to occur due to friction during mounting operation because the flaps are thin.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide a sanitary napkin which is excellent in anti-leakage, smooth mounting, and comfortable feel of wear.

The present invention has achieved the above object by providing a sanitary napkin comprising a central absorption portion including a backsheet of liquid impermeability, an absorber chiefly composed of a pulp fiber and a high absorption polymer (highly absorbent polymer), and a topsheet of liquid permeability, and a pair of flaps extending outward respectively from centers of opposite side portions of the central absorption portion, wherein the backsheet is composed of a film layer having a thickness of 10 μm to 100 μm , and the flaps each is composed of an extended portion of the backsheet and has projection-and-recess-portions of 0.1 mm to 1 mm in depth which are formed on an outer surface of the flap in the density of 5 pcs. to 50 pcs. per cm^2 .

For mounting the sanitary napkin of the present inven-



charged materia
cause leak-
be

tion to a pair of shorts, the central absorption portion is fixed to a predetermined position of an inner surface (surface contacting the wearer's body) of a crotch portion of the shorts, and the flaps are folded such that the shorts are sandwiched by and between the flaps and the central absorption portion, and then the flaps are fixed to an outer surface of the crotch portion of the shorts.

According to the sanitary napkin of the present invention, since it has the projection-and-recess-portions formed on the flaps, mounting operation can be performed correctly and easily, and the flaps and shorts can be prevented from being soiled by bodily liquid absorbed in the absorber. Moreover, during wear of the shorts with the sanitary napkin of the present invention mounted thereto, a comfortable sense of feel is given to the wearer's skin because the projection-and-recess-portions are formed.

The sanitary napkin of the present invention is excellent in anti-leakage, smooth mounting, and comfortable feel of wear, and provides specifically the following technical effects.

(1) Since a non-woven fabric-like pattern is embossed or matte finished on the outer surface of the film which composes each flap, projections and recesses formed on the surface, thus providing a favorable feeling of contact and offering a cloth-like appearance.



(2) Since the backsheet of the napkin has a suitable amount of volume, the napkin can be easily mounted to the shorts.

(3) The napkin is prevented from slipping out of place owing to frictional force of the backsheet, and discharged materials are prohibited from flowing owing to the presence of the projections and recesses on the surface.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a sanitary napkin according to one embodiment of the present invention;

Fig. 2 is a sectional view of the sanitary napkin taken on line I-I' of Fig. 1; and

Fig. 3 is a sectional view showing the sanitary napkin of Fig. 1 but mounted on shorts.

DETAILED DESCRIPTION OF THE EMBODIMENT

A sanitary napkin 30 according to the embodiment of Figs. 1 and 2 comprises a central absorption portion 10 including a backsheet 2 of liquid impermeability, an absorber 3 chiefly composed of a pulp fiber and a high absorption polymer, and a topsheet 1 of liquid permeability, and a pair of flaps 20 extending outward respectively from centers of opposite side portions of the central absorption portion 10. The backsheet 2 is composed of a film layer having a thickness of 50 μ m, and the flaps each is composed of an extended portion of the backsheet and having projection-and-recess-



in has a suitab
sented to the
re

portions 21 of 0.5 mm in depth which are formed on an outer surface of the flap in the density of 10 pcs. per cm^2 .

The central absorption portion 10 is constructed such that the absorber 3 is unwrapped or wrapped with the topsheet 1, and the topsheet 1 and the backsheet 2 are fixed together at contacting surfaces thereof by adhesive agent. Here, a large number of openings 11 for allowing liquid to pass therethrough are formed in a central area A of the topsheet 1, and a side edge area B of the topsheet 1 is a liquid impermeable portion where a liquid leakage is prohibited. The total opening area of the openings 11 is subject to restriction both from liquid permeability and liquid return preventive ability. When the ratio is small, liquid permeability is substantially bad. On the other hand, the sheet formation ability is increasingly lowered as the ratio becomes larger. Accordingly, taking this into consideration, the number of openings 11 is preferably in a range from 10 pcs. per cm^2 to 100 pcs. per cm^2 , and more preferably in a range from 30 pcs. per cm^2 to 60 pcs. per cm^2 .

Next, the characteristic portions of the sanitary napkin 30 according to this embodiment will be described.

The backsheet 2 is composed of the film layer 4, and that portion of a rear surface of the backsheet 2 opposite to the central absorption portion 10 is provided with an



adhesive layer 5. A peelable sheet 6 is attached to the surface of the adhesive layer 5.

In the present invention, the thickness of the film layer used as the backsheet is in a range of from 10 μm to 100 μm . If it is less than 10 μm , the strength of the flap becomes so low as to be easily stretched and/or torn during mounting. In contrast, if it exceeds 100 μm , a feeling of physical disorder is provided during mounting, the flaps become difficult to be folded due to their rigidity, and the napkin tends to escape from the shorts.

The flaps 20 are outward extensions of the backsheet 2 extending outwardly from opposite side edge portions of the central absorption portion 10 in the vicinity of a lengthwise central portion of the central absorption portion 10. Each flap 20 has projection-and-recess-portions 21 of 0.5 mm in depth which are formed on an outer surface of the flap in the density of 10 pcs. per cm^2 . The rear surface of each flap 20 is provided with an adhesive layer 5'. A peelable sheet 6' is attached to the surface of the adhesive layer 5'.

The depth of the projection-and-recess-portions 21 is in a range of from 0.1 mm to 1 mm. If it is less than 0.1 mm, a sufficient effect for prohibiting the discharged materials from flowing. In contrast, if it exceeds 1 mm, a feeling of roughness is produced, thus providing a favorable



is attached to the film to

feeling of contact. The density is in a range of from 5 pcs. to 50 pcs. per cm^2 . If it is less than 5 pcs. per cm^2 , it becomes remove from a cloth-like outer appearance in a sense of visuality. In contrast, if it exceeds 50 pcs. per cm^2 , it becomes difficult to prohibit the discharged materials from flowing.

Owing to the above-mentioned features, the sanitary napkin 30 of this embodiment provide the following technical effects.

(1) Since the projections and recesses formed on the surface, thus providing a favorable feeling of contact and offering a cloth-like appearance.

(2) Since the backsheet of the napkin has a suitable amount of volume, the napkin can be easily mounted to the shorts.

(3) The napkin is prevented from slipping out of place owing to frictional force of the backsheet, and the discharged materials can be prohibited from flowing owing to the presence of the projections and recesses on the surface of the flaps.

The materials of the film layer 4, the topsheet 1, and the absorber 3 used in the sanitary napkin of this embodiment are not particularly limited, and those which are used in the conventional sanitary napkins are used. Concretely to say, the following materials, etc. are used.



heat

The film layer 4 is preferably polyolefin resin fi having a heat sealing property in a range of from 5 g to 50 g per m², and preferably from 10 g to 30 g per m², with an inorganic fillers such as TiO₂, talc or the like attached to the inner side thereof, in order to provide a covering ability and limiting stickiness of the surface.

Examples of the topsheet 1 are a hydrophobic thermoplastic resin sheet such as polyolefin, copolymer of olefin and other vinyl monomers such as acrylic ester and vinyl acetate, polyester and polyamide, a nonwoven fabric which is subjected to hydrophilic treatment, and the like. Among them, the hydrophobic thermoplastic resin sheet such as polyolefin, a copolymer of olefin and other monomers, or polymer blended series is preferable in view of its feel and outlook, and handling. The topsheet 1 may use the same material as the backsheet 2. In case the hydrophobic thermoplastic resin sheet, or a liquid impermeable sheet of the same material as the backsheet 2 is used as a material of the topsheet 1, the topsheet 1 is composed of an apertured film having the openings at the central area A (skin-contacting area) as previously mentioned.

The absorber 3 is preferably composed chiefly of a comminuted wooden pulp, and also of a high absorption polymer. Besides the above, a mixture of thermoplastic resin, cellulose fiber, and high absorption polymer subjected to



olefin resin E1
from 5 g to 50
with an
to

heat treatment is preferable. The high absorption polymer may be mixed with pulp. The high absorption polymer is preferably in a granular state having a water absorption ability capable of absorbing and holding liquid more than twenty times its dead weight and gelled when it absorbs water. Such high absorption polymer is preferably starch-acrylic acid (salt) graft copolymer, graft copolymer, saponified starch-acrylonitrile copolymer, crosslinked polymer of sodium carboxymethyl-cellulose, acrylic acid (salt) polymer or the like.

For use of the sanitary napkin 30 of this embodiment, as shown in Fig. 3, after the peelable sheets 6 and 6' are peeled off, the adhesive layer 5 is adhered to the skin-contacting area of the shorts 7 and the flap portion 20 is folded along the thickness of the crotch portion of the shorts 7 and then the adhesive layer 5' on the rear surface of the flap portion 20 is fixedly adhered to the surface of the shorts 7.

The backsheet 2 and the flaps 20 may be a laminated member composed of materials having comparatively large projections and recesses such as nonwoven material, paper, film or the like, laminated on the film layer. At that time, the laminated member may be formed by attaching together the film layer and the above various materials through heating or adhesive agent.





CLAIMS

1. A sanitary napkin comprising a central absorption portion including a backsheet of liquid impermeability, an absorber chiefly composed of a pulp fiber and a highly absorbent polymer, and a topsheet of liquid permeability, and a pair of flaps extending outward respectively from centers of opposite side portions of said central absorption portion, wherein:

said backsheet is composed of a film layer having a thickness of 10 μm to 100 μm , and said flaps each is composed of an extended portion of said backsheet and has projection-and-recess-portions of 0.1 mm to 1 mm in depth which are formed on an outer surface of said flap in the density of 5 to 50 projection-and-recess-portions per cm^2 .

2. A sanitary napkin as claimed in claim 1, wherein said film layer is a film composed of a polyolefin resin film having a heat sealing property in a range of from 5 g to 50 g per m^2 , with an inorganic filler attached to an inner side thereof.

This Sheet Has Been Replaced





3. A sanitary napkin comprising a central absorbent portion which comprises an absorbent core, a liquid permeable topsheet and a liquid impermeable backsheet, the napkin including a pair of flaps extending laterally outwardly in the unfolded state from opposed sides of the central portion, the flaps comprising a portion of the backsheet, a plurality of projections and/or recesses being provided on each flap.
4. A sanitary napkin as claimed in Claim 3 in which the projections and/or recesses have been formed by embossing the backsheet in the region of the flaps.
5. A sanitary napkin as claimed in Claim 3 in which the projections and/or recesses have been formed on a separate sheet of material which has been secured to the backsheet in the region of the flap.
6. A sanitary napkin as claimed in any of Claims 3 to 5 wherein the density of the projections and/or recesses is between 5 and 50 projections and/or recesses per cm².
7. A sanitary napkin as claimed in any of Claims 3 to 6, the projections and/or recesses being provided on a side of the backsheet to which the absorbent core is attached.
8. A sanitary napkin substantially as herein specifically described with reference to the accompanying drawings.

This Sheet Has Been Replaced



ABSTRACTSANITARY NAPKIN

5

A sanitary napkin comprising a central absorption portion (10) including a backsheet (2) of liquid impermeable material, an absorber (3) chiefly composed of a pulp fibre and a highly absorbent polymer, and a topsheet (1) of liquid permeable material, a pair of flaps (20) extending outward respectively from the longitudinal centre of opposite sides of the central absorption portion, wherein the backsheet (2) is composed of a film layer having a thickness of 10 μm to 100 μm , and the flaps (20) each is composed of an extended portion of the backsheet (2) and has projection-and-recess-portions (21) of 0.1 mm to 1 mm in depth which are formed on an outer surface of the flap in the density of 5 pcs. to 50 pcs. per cm^2 .

20

(Figure 3)

This Sheet Has Been Replaced



FIG. 1

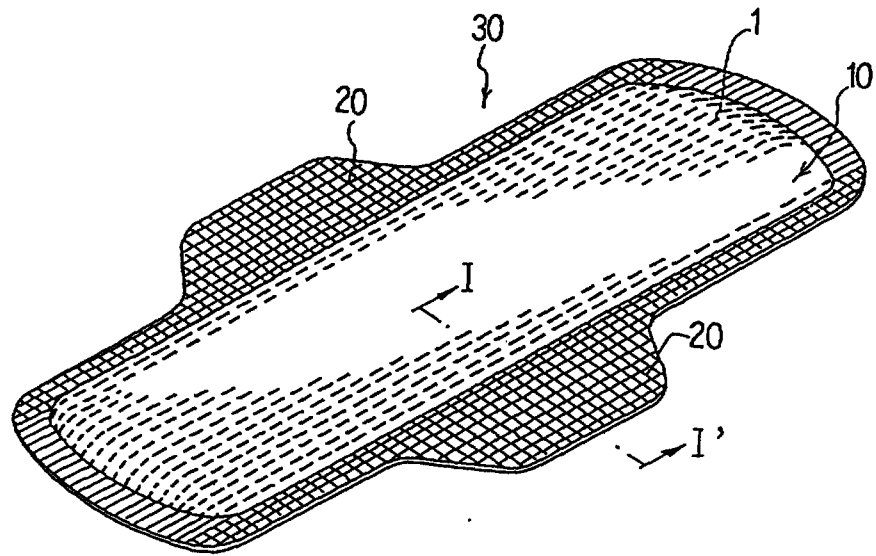


FIG. 2

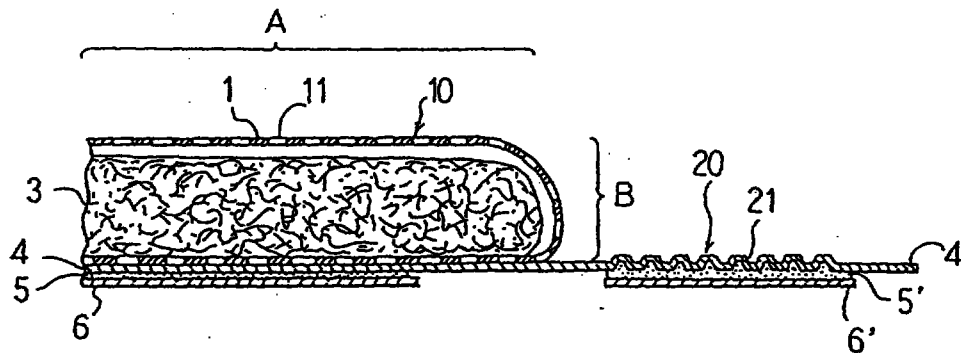
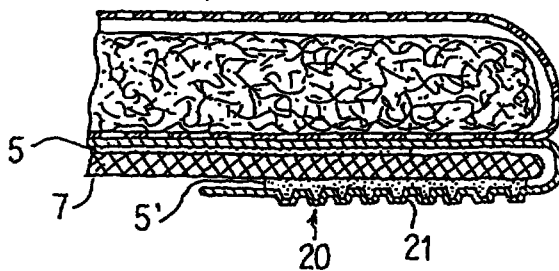


FIG. 3



This Sheet Has Been Replaced



S-3135/202

SANITARY NAPKIN

REPLACEMENT SHEETS		SG
☒ Description	: paged 1 to paged 9	
☒ Claim(s)	: paged 10 to paged 11	
☒ Drawing(s)	: paged 11 to paged 12	
☒ Abstract	: paged 12 to paged 13	
DATE OF RECEIPT		2/1/97

BACKGROUND OF THE INVENTION

[Field of the Invention]

This invention relates to a sanitary napkin which is excellent in mounting ability.

[Description of the Prior Art]

It is generally said that a sanitary napkin provided with side flaps (or flaps) has such a function that the napkin can be stably fixed to a crotch portion of the shorts by the side flaps and the shorts are less likely to be soiled when it is compared with a sanitary napkin which has no side flaps. Sanitary napkins of this type are well accepted by many users because they apparently give such a psychological relief or easiness to the users that the napkins will provide the above-mentioned effect whether such effect is actually provided.

As typical printing matters in which a sanitary napkin provided with side flaps is described, there can be listed Japanese Early Laid-Open Patent Publication Nos. Sho 60-75058 and Sho 64-70050. The flaps of the conventional sanitary napkin described in those Publications are formed by integrating a backsheet and a topsheet.

However, the above-mentioned conventional sanitary napkin has the following shortcomings.

This is the replacement sheet

Date: 21 JAN 1997

(1) There is a possibility that discharged materials enter between the topsheet and the backsheet to cause leakage.

(2) Strength of the flap portion is so low as to be stretched and/or torn during mounting operation.

(3) Noises are likely to occur due to friction during mounting operation because the flaps are thin.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide a sanitary napkin which is excellent in anti-leakage, smooth mounting, and comfortable feel of wear.

The present invention has achieved the above object by providing a sanitary napkin comprising a central absorption portion including a backsheet of liquid impermeability, an absorber chiefly composed of a pulp fiber and a high absorption polymer (highly absorbent polymer), and a topsheet of liquid permeability, and a pair of flaps extending outward respectively from centers of opposite side portions of the central absorption portion, wherein the backsheet is composed of a film layer having a thickness of 10 μm to 100 μm , and the flaps each is composed of an extended portion of the backsheet and has projection-and-recess-portions of 0.1 mm to 1 mm in depth which are formed on an outer surface of the flap in the density of 5 pcs. to 50 pcs. per cm^2 .

For mounting the sanitary napkin of the present inven-

This is the replacement sheet

Date: 21 JAN 1997

tion to a pair of shorts, the central absorption portion is fixed to a predetermined position of an inner surface (surface contacting the wearer's body) of a crotch portion of the shorts, and the flaps are folded such that the shorts are sandwiched by and between the flaps and the central absorption portion, and then the flaps are fixed to an outer surface of the crotch portion of the shorts.

According to the sanitary napkin of the present invention, since it has the projection-and-recess-portions formed on the flaps, mounting operation can be performed correctly and easily, and the flaps and shorts can be prevented from being soiled by bodily liquid absorbed in the absorber. Moreover, during wear of the shorts with the sanitary napkin of the present invention mounted thereto, a comfortable sense of feel is given to the wearer's skin because the projection-and-recess-portions are formed.

The sanitary napkin of the present invention is excellent in anti-leakage, smooth mounting, and comfortable feel of wear, and provides specifically the following technical effects.

(1) Since a non-woven fabric-like pattern is embossed or matte finished on the outer surface of the film which composes each flap, projections and recesses formed on the surface, thus providing a favorable feeling of contact and offering a cloth-like appearance.

This is the replacement sheet

Date: 21 JAN 1997

(2) Since the backsheet of the napkin has a suitable amount of volume, the napkin can be easily mounted to the shorts.

(3) The napkin is prevented from slipping out of place owing to frictional force of the backsheet, and discharged materials are prohibited from flowing owing to the presence of the projections and recesses on the surface.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a sanitary napkin according to one embodiment of the present invention;

Fig. 2 is a sectional view of the sanitary napkin taken on line I-I' of Fig. 1; and

Fig. 3 is a sectional view showing the sanitary napkin of Fig. 1 but mounted on shorts.

DETAILED DESCRIPTION OF THE EMBODIMENT

A sanitary napkin 30 according to the embodiment of Figs. 1 and 2 comprises a central absorption portion 10 including a backsheet 2 of liquid impermeability, an absorber 3 chiefly composed of a pulp fiber and a high absorption polymer, and a topsheet 1 of liquid permeability, and a pair of flaps 20 extending outward respectively from centers of opposite side portions of the central absorption portion 10. The backsheet 2 is composed of a film layer having a thickness of 50 μ m, and the flaps each is composed of an extended portion of the backsheet and having projection-and-recess-

This is the replacement sheet

Date: 21 JAN 1997

portions 21 of 0.5 mm in depth which are formed on an outer surface of the flap in the density of 10 pcs. per cm^2 .

The central absorption portion 10 is constructed such that the absorber 3 is unwrapped or wrapped with the topsheet 1, and the topsheet 1 and the backsheet 2 are fixed together at contacting surfaces thereof by adhesive agent. Here, a large number of openings 11 for allowing liquid to pass therethrough are formed in a central area A of the topsheet 1, and a side edge area B is the topsheet 1 is a liquid impermeable portion where a liquid leakage is prohibited. The total opening area of the openings 11 is subject to restriction both from liquid permeability and liquid return preventive ability. When the ratio is small, liquid permeability is substantially bad. On the other hand, the sheet formation ability is increasingly lowered as the ratio becomes larger. Accordingly, taking this into consideration, the number of openings 11 is preferably in a range from 10 pcs. per cm^2 to 100 pcs. per cm^2 , and more preferably in a range from 30 pcs. per cm^2 to 60 pcs. per cm^2 .

Next, the characteristic portions of the sanitary napkin 30 according to this embodiment will be described.

The backsheet 2 is composed of the film layer 4, and that portion of a rear surface of the backsheet 2 opposite to the central absorption portion 10 is provided with an

This is the replacement sheet

Date: 21 JAN 1997

adhesive layer 5. A peelable sheet 6 is attached to the surface of the adhesive layer 5.

In the present invention, the thickness of the film layer used as the backsheet is in a range of from 10 μm to 100 μm . If it is less than 10 μm , the strength of the flap becomes so low as to be easily stretched and/or torn during mounting. In contrast, if it exceeds 100 μm , a feeling of physical disorder is provided during mounting, the flaps become difficult to be folded due to their rigidity, and the napkin tends to escape from the shorts.

The flaps 20 are outward extensions of the backsheet 2 extending outwardly from opposite side edge portions of the central absorption portion 10 in the vicinity of a length-wise central portion of the central absorption portion 10. Each flap 20 has projection-and-recess-portions 21 of 0.5 mm in depth which are formed on an outer surface of the flap in the density of 10 pcs. per cm^2 . The rear surface of each flap 20 is provided with an adhesive layer 5'. A peelable sheet 6' is attached to the surface of the adhesive layer 5'.

The depth of the projection-and-recess-portions 21 is in a range of from 0.1 mm to 1 mm. If it is less than 0.1 mm, a sufficient effect for prohibiting the discharged materials from flowing. In contrast, if it exceeds 1 mm, a feeling of roughness is produced, thus providing a favorable

This is the replacement sheet

Date: 21 JAN 1997

feeling of contact. The density is in a range of from 5 pcs. to 50 pcs. per cm^2 . If it is less than 5 pcs. per cm^2 , it becomes remove from a cloth-like outer appearance in a sense of visuality. In contrast, if it exceeds 50 pcs. per cm^2 , it becomes difficult to prohibit the discharged materials from flowing.

Owing to the above-mentioned features, the sanitary napkin 30 of this embodiment provide the following technical effects.

(1) Since the projections and recesses formed on the surface, thus providing a favorable feeling of contact and offering a cloth-like appearance.

(2) Since the backsheet of the napkin has a suitable amount of volume, the napkin can be easily mounted to the shorts.

(3) The napkin is prevented from slipping out of place owing to frictional force of the backsheet, and the discharged materials can be prohibited from flowing owing to the presence of the projections and recesses on the surface of the flaps.

The materials of the film layer 4, the topsheet 1, and the absorber 3 used in the sanitary napkin of this embodiment are not particularly limited, and those which are used in the conventional sanitary napkins are used. Concretely to say, the following materials, etc. are used.

This is the replacement sheet

Date: 21 JAN 1997

The film layer 4 is preferably polyolefin resin film having a heat sealing property in a range of from 5 g to 50 g per m^2 , and preferably from 10 g to 30 g per m^2 , with an inorganic fillers such as TiO_2 , talc or the like attached to the inner side thereof, in order to provide a covering ability and limiting stickiness of the surface.

Examples of the topsheet 1 are a hydrophobic thermoplastic resin sheet such as polyolefin, copolymer of olefin and other vinyl monomers such as acrylic ester and vinyl acetate, polyester and polyamide, a nonwoven fabric which is subjected to hydrophilic treatment, and the like. Among them, the hydrophobic thermoplastic resin sheet such as polyolefin, a copolymer of olefin and other monomers, or polymer blended series is preferable in view of its feel and outlook, and handling. The topsheet 1 may use the same material as the backsheet 2. In case the hydrophobic thermoplastic resin sheet, or a liquid impermeable sheet of the same material as the backsheet 2 is used as a material of the topsheet 1, the topsheet 1 is composed of an apertured film having the openings at the central area A (skin-contacting area) as previously mentioned.

The absorber 3 is preferably composed chiefly of a comminuted wooden pulp, and also of a high absorption polymer. Besides the above, a mixture of thermoplastic resin, cellulose fiber, and high absorption polymer subjected to

This is the replacement sheet

Date: 21 JAN 1997

heat treatment is preferable. The high absorption polymer may be mixed with pulp. The high absorption polymer is preferably in a granular state having a water absorption ability capable of absorbing and holding liquid more than twenty times its dead weight and gelled when it absorbs water. Such high absorption polymer is preferably starch-acrylic acid (salt) graft copolymer, graft copolymer, saponified starch-acrylonitrile copolymer, crosslinked polymer of sodium calboxymethyl-cellulose, acrylic acid (salt) polymer or the like.

For use of the sanitary napkin 30 of this embodiment, as shown in Fig. 3, after the peelable sheets 6 and 6' are peeled off, the adhesive layer 5 is adhered to the skin-contacting area of the shorts 7 and the flap portion 20 is folded along the thickness of the crotch portion of the shorts 7 and then the adhesive layer 5' on the rear surface of the flap portion 20 is fixedly adhered to the surface of the shorts 7.

The backsheet 2 and the flaps 20 may be a laminated member composed of materials having comparatively large projections and recesses such as nonwoven material, paper, film or the like, laminated on the film layer. At that time, the laminated member may be formed by attaching together the film layer and the above various materials through heating or adhesive agent.

This is the replacement sheet

Date: 21 JAN 1997



CLAIMS

1. A sanitary napkin comprising a central absorption portion including a backsheet of liquid impermeability, an absorber chiefly composed of a pulp fiber and a highly absorbent polymer, and a topsheet of liquid permeability, and a pair of flaps extending outward respectively from centers of opposite side portions of said central absorption portion, wherein:

said backsheet is composed of a film layer having a thickness of 10 μm to 100 μm , and said flaps each is composed of an extended portion of said backsheet and has projection-and-recess-portions of 0.1 mm to 1 mm in depth which are formed on an outer surface of said flap in the density of 5 to 50 projection-and-recess-portions per cm^2 .

2. A sanitary napkin as claimed in claim 1, wherein said film layer is a film composed of a polyolefin resin film having a heat sealing property in a range of from 5 g to 50 g per m^2 , with an inorganic filler attached to an inner side thereof.

This is the replacement sheet

Date: 21 JAN 1997



3. A sanitary napkin comprising a central absorbent portion which comprises an absorbent core, a liquid permeable topsheet and a liquid impermeable backsheet, the napkin including a pair of flaps extending laterally outwardly in the unfolded state from opposed sides of the central portion, the flaps comprising a portion of the backsheet, a plurality of projections and/or recesses being provided on each flap.

4. A sanitary napkin as claimed in Claim 3 in which the projections and/or recesses have been formed by embossing the backsheet in the region of the flaps.

5. A sanitary napkin as claimed in Claim 3 in which the projections and/or recesses have been formed on a separate sheet of material which has been secured to the backsheet in the region of the flap.

6. A sanitary napkin as claimed in any of Claims 3 to 5 wherein the density of the projections and/or recesses is between 5 and 50 projections and/or recesses per cm².

7. A sanitary napkin as claimed in any of Claims 3 to 6, the projections and/or recesses being provided on a side of the backsheet to which the absorbent core is attached.

8. A sanitary napkin substantially as herein specifically described with reference to the accompanying drawings.

This is the replacement sheet

Date: 21 JAN 1997

ABSTRACTSANITARY NAPKIN

A sanitary napkin comprising a central absorption portion (10) including a backsheet (2) of liquid impermeable material, an absorber (3) chiefly composed of a pulp fibre and a highly absorbent polymer, and a topsheet (1) of liquid permeable material, a pair of flaps (20) extending outward respectively from the longitudinal centre of opposite sides of the central absorption portion, wherein the backsheet (2) is composed of a film layer having a thickness of 10 μm to 100 μm , and the flaps (20) each is composed of an extended portion of the backsheet (2) and has projection-and-recess-portions (21) of 0.1 mm to 1 mm in depth which are formed on an outer surface of the flap in the density of 5 pcs. to 50 pcs. per cm^2 .

(Figure 3)

This is the replacement sheet

Date: 21 JAN 1997

FIG. 1

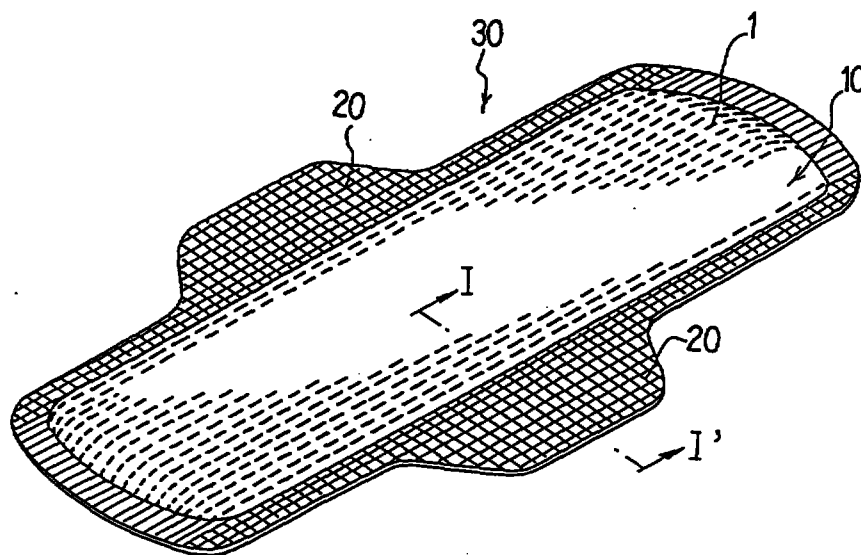


FIG. 2

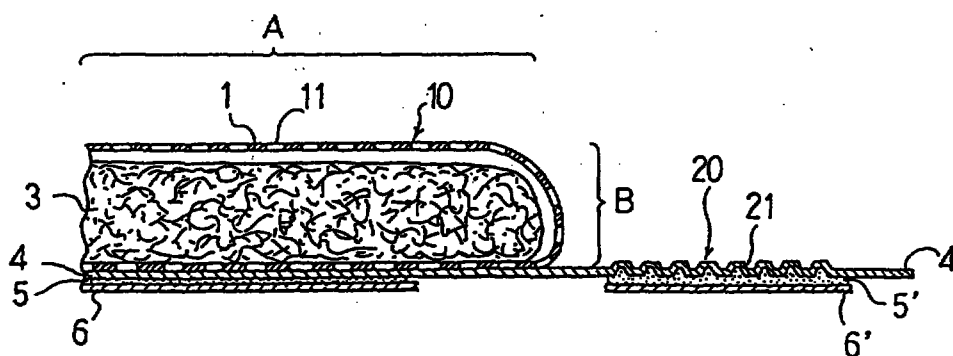
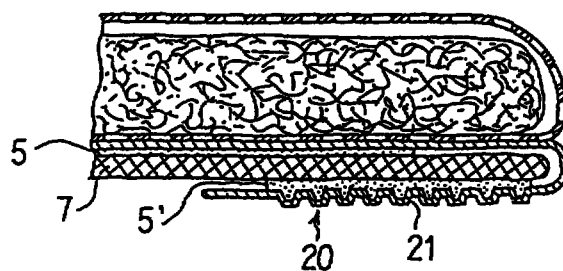


FIG. 3



This is the replacement sheet

Date: 21 JAN 1997