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**D E C I S I O N**  
of 13 October 1998

**Case Number:** T 0541/95 - 3.2.2

**Application Number:** 89115270.4

**Publication Number:** 0355740

**IPC:** A61F 13/15

**Language of the proceedings:** EN

**Title of invention:**  
Absorbent article

**Patentee:**  
Kimberly-Clark Worldwide, Inc.

**Opponent:**  
Mölnlycke AB

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 52, 56, 83, 113, 123

**Keyword:**  
"Inventive step (yes)"  
"Basis of the decision - opportunity to comment (yes)"  
"Amendements -added subject-matter (no)"

**Decisions cited:**  
G 0009/91, G 0010/91

**Catchword:**  
-



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Case Number: T 0541/95 - 3.2.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.2**  
**of 13 October 1998**

**Appellant:**  
(Opponent)

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**Decision under appeal:**

Interlocutory decision of the Opposition Division  
of the European Patent Office posted 2 May 1995  
concerning maintenance of European patent  
No. 0 355 740 in amended form.

**Composition of the Board:**

**Chairman:** W. D. Weiß  
**Members:** D. Valle  
J. C. M. De Preter

## Summary of Facts and Submissions

I. Against the decision of the opposition division of 2 May 1995 to maintain the European patent No. 0 355 740 in amended form an appeal was filed on 3 July 1995. The fee for appeal was paid on the same day, the statement of the grounds of appeal was filed on 16 August 1995.

II. In its grounds of appeal, the appellant maintained objections based on its original grounds of opposition (Article 100(a) EPC, lack of novelty and inventive step).

On 25 September 1998, the appellant introduced for the first time a ground of opposition based on Article 100(b) EPC, stating that the European patent did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

III. Following auxiliary requests of both parties, oral proceedings were held on 13 October 1998. At the oral proceedings, the respondent filed a new set of claims against which the objection of lack of novelty was no longer maintained.

VI. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patentee) requested that the appeal be dismissed and that the patent be maintained in amended form in the following version:

- Claims 1 to 14 as filed during the oral proceedings,

- Description: page 4 as filed during the oral proceedings, the rest of the description as defined in the decision under appeal,
- Drawings as defined in the decision under appeal.

V. Following documents cited in the opposition proceedings are relevant for the decision:

- (1) US-A-3 572 342
- (3) EP-A-0 274 752
- (4) US-A-4 050 462
- (5) US-A-4 704 116
- (6) EP-A-0 140 471

VI. Independent claims 1 and 5 as filed during the oral proceedings read as follows:

"1. An absorbent article (10) comprising:

a backsheet layer (12),

a substantially liquid-permeable liner layer (14),

an absorbent body (16) located between said backsheet (12) and liner layer (14),

a resilient barrier (13) extending transversely across the article (10) and upward from the plane generally defined by liner layer (14), the resiliency being in the upward direction, said resilient barrier comprising a ridge member (13) composed of a compressible material,

characterized by:

leg elastic members (28, 30) secured to side margins (20) of said article to form elasticized gasketing around the legs of the wearer; and

said material of said ridge member having sufficient resiliency even when wet, and

said ridge member extending along the article cross-direction in a, as seen from a top plan view, angular, U-, or H-shaped configuration in a flat condition of said absorbent article (10) with said configuration located inboard of said leg elastic members."

"5. An absorbent article (10) comprising:

a backsheet layer (12),

a substantially liquid-permeable liner layer (14),

an absorbent body (16) located between said backsheet (12) and liner layer (14),

one or more of said backsheet and liner layers (12, 14) extending beyond lateral side edges of said absorbent body (16) to form gatherable side margins of said article (10),

one or more leg elastic members (28, 30) being connected to each side margin to form elasticized gathers in the side margin,

characterized by

[a]] - a resilient barrier extending transversely across the article (10) and upward from the plane generally defined by liner layer (14), the resiliency

being in the upward direction, said resilient barrier comprising a plurality of longitudinally extending ruffle elastic members (40, 40a) which are connected to said liner layer (14) along at least one waistband section of said article and are transversely distributed in a substantially adjacently-spaced relation over a cross-dimensionally medial section (56) of said article (10), the transverse dimension of the medial section being within the distance between the leg elastic members,

[b]] - said ruffle elastic members (40, 40a) having a total, active longitudinal extent of not more than about 50 percent of the total length of said absorbent article (10),

[c]] - said ruffle elastic members (40, 40a) operably gathering said liner layer (14) to form therein one or more ruffled panel regions (54, 54a) which include a plurality of transversely aligned ridges (44) extending generally perpendicularly from said liner layer (14) and positioned at a predetermined portion of said absorbent article (10),

[d]] - said ruffle elastic members (40, 40a) arranged to operably shorten said liner layer (14) to reduce the occurrence of transversely aligned wrinkling and folding thereof at a designated region (60, 62) of said absorbent article (10),

[e]] - and said ruffle elastic members (40, 40a) having sufficient contracting force to effectively form said ridges (44) without causing an excessive contractive bunching of the article (10)."

The heading letters in square brackets: [a]], [b]], ... have been added by the Board to the features of the characterizing part for later reference.

VII. The appellant argued essentially as follows:

The patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art as far as the feature: "the ridge member has sufficiently resiliency even when wet" is concerned.

The new feature concerning the special configurations of the ridge member introduced in claim 1 during the oral proceedings would have required an additional search for relevant documents and therefore it would have been necessary to suspend the oral proceedings in order to have the possibility to make such an additional search.

Claim 1 lacks inventive step having regard to documents (D1) and (D3) or (D5).

Document (D1) discloses the preamble of claim 1, resilient ridge members (35 to 38, Figure 6) which in combination have a H- and /or a U-configuration, whereby said members are hydrophobic, prevent lateral as well as longitudinal movement of the fluids beyond their location, and may be placed at any portion of the diaper depending on the particular areas beyond which surface seepage is not to extend (see column 1, lines 38 to 43, column 5, lines 6 to 10 and from line 27). The wet resiliency derives necessarily from the material of the strips being hydrophobic, see also column 2, lines 54 to 59, where the values given for the resiliency are similar to those given in the patent in suit (column 6, line 24), namely 10 to 60% against 50%.

The subject-matter of claim 1 differs from the disclosure of this document in that leg elastic members are provided and that the resilient ridge member is located inboard of the leg elastic members. However, before the priority date of the patent in suit leg elastic members had become an obligatory feature of the diapers, see for example documents (D3), abstract, right column, Figure 2, reference number 102; (D4) and (D5), Figures 1 and 2, reference numbers 44 and 46, column 5, from line 4. This fact is confirmed by the description of the patent in suit (column 7, from line 10) which states that providing leg elastic members is a typical measure in the field. The person skilled in the art would have provided leg elastic members in addition to the resilient ridge members. Under these circumstances the fact that the ridge members have to be arranged inside the leg elastic members is an obvious measure.

The advantages of separating liquid from solid waste are also known, see document (D6), page 7, lines 19 to 21 and page 27, lines 15 to 20.

The subject-matter of claim 5 does not involve an inventive step having regard to document (D3) which discloses all the features of its preamble, and to documents (D1) and (D5). Being features (a) to (d) of the characterizing part also disclosed by document (D3) (see Figures 2 to 5, reference numbers 96, 102; column 11, from line 24; column 16, lines 38, 39), feature (e) is the only difference over the disclosure of document (D3).



The problem to be solved is to reduce wrinkles and folds to a predetermined part of the diaper and to reduce leakage. This problem is also solved by document (D3), see column 11, lines 41, 42 and 53, 54. Furthermore document (D1) discloses also a waist barrier. Alternatively document (D5) discloses barrier flaps inside leg elastic members.

Document (D6) discloses a liquid-impermeable barrier separating the front and the rear portion of the disposable product.

The respondent argued essentially as follows.

Regarding claim 1. Document (D1) does not disclose any of the configurations of the ridge enumerated in claim 1. The object of this document is limiting the surface area of the diaper which becomes wet, see column 5, line 27. The wet resiliency of the ridge is not disclosed. There is also no need for wet resiliency because the ridges separate only a relatively wet area from a dry area. In particular document (D1) refers to a diaper which is designed to be used together with a reusable panty and not to a diaper pant which - having elastic leg members - can be worn independently from a reusable panty (see column 1, lines 27 to 34).

The object of the invention to separate solid from liquid waste and to avoid cross directional movement of waste material (see column 6, line 11) is not known.

Documents (D4) and (D5) fail to disclose a non-linear ridge member inboard of the elastic legs.

Document (D6) does not disclose a normal diaper nor ridges, the whole surface being flat.

Regarding claim 5. Document (D3) does not disclose a resilient barrier having aligned ridges. The difference between the wrinkles of the state of the art and the aligned ridges of the patent in suit can be seen by comparing Figure 1 with Figure 6.

### **Reasons for the Decision**

1. The appeal is admissible.

2. *Article 100(b) EPC*

Article 100(b) EPC stating that the European patent shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, defines a ground for opposition concerning the patent as a whole including the description and the drawings and not only the claims.

Since the description has not been amended insofar as the objected definition of the qualities of the ridge member is concerned, the objection based on this ground could, and therefore should, have been filed with the grounds of opposition. The objection based on this ground has however been raised for the first time only during appeal proceedings. Therefore, this ground constitutes a fresh ground for opposition.

According to the decisions of the Enlarged Board of Appeal G 9/91 and G 10/91, headnote, point III, a fresh ground for opposition may be considered in the appeal proceedings only with the approval of the patentee. With letter of 7 August 1997, the patentee did not give its approval.

Accordingly, the ground for opposition based on Article 100(b) EPC is not admitted in the proceedings.

3. *Right to be heard*

The appellant complained that the new claims presented during the oral proceedings required an additional search for relevant documents and requested the oral proceeding be suspended in order to give it the possibility to make such an additional search.

It referred specifically in this context to the insertion in claim 1 of the wording: "angular, U- or H-shaped configuration".

However the amendment referred to by the appellant consists in the substitution of the wording "non linear configuration" in claim 1 with the wording "angular, U-, or H-shaped configuration". This corresponds to a narrowing of the scope of the claim. Furthermore the appellant itself argued that the feature was known and produced the document (D1) which in its opinion shows a H- and an U-configuration, showing in this way that it had already performed a search within the narrowed scope of the amendment. Since the new claims, therefore, have not introduced facts on which the appellant has not had an opportunity to present its comments even before oral proceedings, there was no reason to suspend the oral proceedings.

4. *Amendments*

The amendments are allowable.

In particular the substitution of the wording "non linear configuration" in claim 1 with the wording "angular, U-, or H-shaped configuration" is supported by the description, see EP-B-355 740, paragraph bridging columns 5 and 6, which is identical to the original description, page 9, last paragraph.

Claim 5 is made of the granted claims 1, 19 and of the claim 1 taken as a basis for the appealed decision but instead of "said medial section located inboard of said leg elastics" the following wording is inserted: "the transverse dimension of the medial section being within the distance between the leg elastic members". This last amendment has been made for the sake of clarity and it is supported by the drawings as originally filed and granted.

The corresponding supporting passages in the original disclosure can be found in claims 1, 8, 18, 19, at page 18, lines 25 to 26, page 20, lines 18 to 21 and in the drawings.

5. *Claim 1*

5.1 *Closest prior art*

Document (D1) discloses an absorbent article comprising a backsheet layer (11), a substantially liquid-permeable liner layer (13), an absorbent body (12) located between said backsheet and liner layer, a resilient barrier (37 or 38, column 5, last paragraph) extending transversely across the article and upward from the plane generally defined by liner layer,

whereby the resiliency must be also in the upward direction in order to perform the function assigned to it according to the paragraph bridging columns 5 and 6, said resilient barrier comprising a ridge member composed of a compressible material (column 6, line 43), the article having further members (16, 17; 35, 36) secured to side margins of said article to form elasticized gasketing (that is sealing), see column 2, lines 28 to 31, column 4, from line 70, said material of said ridge member having sufficient resiliency even when wet (being fluid impermeable, column 6, lines 43 to 44) and said ridge member extending along the article cross-direction in a, as seen from a top plan view, linear configuration in a flat condition of said absorbent article."

Claim 1 distinguishes therefrom in that leg elastic members are provided (that is in the meaning of the patent and as intended in the field of the absorbent articles, longitudinally elastically stretchable members positioned on both sides of the crotch region) and in that the configuration of the ridge member is angular, U- or H-shaped, with said linear configuration located inboard of said leg members.

The appellant argues that the combination of sealing strips 35 to 38 in Figure 6 gives an H- or U-shaped ridge.

However, the sealing strips 35 and 36 are clearly independent from the sealing strips 37 and 38, so that they cannot be seen in combination as forming a unitary entity.

The respondent argues that document (D1) does not disclose that the material of the ridge has sufficient resiliency even wet.

However, document (D1) discloses that the material is liquid impermeable, see column 6, line 22 and it is common knowledge that liquid impermeable materials used in the field do not modify their features in presence of liquids.

## 5.2 Inventive step

As it will become clear from the following considerations, claim 1 involves an inventive step.

The absorbent article disclosed in document (D1) is a disposable insert intended to be arranged inside a reusable fluid impermeable panty. Leg elastic members and gasketing waistband portions of these common panties prevent that fluid and solid wastes escaping from the diaper insert migrate beyond the borders of the reusable panty and soil the overclothes of the baby. The article disclosed in document (D1) is designed to prevent the well-known drawback of such a diaper inserts that fluid and solid wastes may escape from the diaper and soil the reusable panty, so that the panty cannot be reused without being thoroughly washed. A common solution to this problem was to combine the functions of the diaper insert and of the panty in one disposable article to form the so-called disposable diaper pants (see D1, lines 27 to 30). These well-known diaper pants have leg elastic members which provide fluid-tight fit around the legs of the baby.

The author of document (D1), instead of adopting the integrated diaper panty solution, prevents leakage of the body liquids to the legs or in the back and in the waist area by containing them within a closed area of the diaper (insert) by means of sealing strips (see column 1, lines 30 to 35). As clearly expressed by the denomination "sealing strip" and shown in Figure 6 of (D1), these sealing strips (35 to 38) define the

external border of the liquid containing area of the diaper beyond which surface seepage is not to extend (see column 5, lines 6 to 29) and beyond which the skin of the baby should remain dry.

The longitudinally arranged strips (35, 36) of the article disclosed in document (D1) provide for the sealing function for the legs of the wearer whereby the transversely arranged strips (37, 38) perform the same function for the back and the waist.

Claim 1 provides leg elastic members secured to the side margins of the article for the same purpose of the strips (35 and 36). From the above considerations, however, it follows that the author of document (D1) did not think to use the sealing strips in addition to elasticised members but only instead of them and only to form the external border of the areas occupied by the waste material.

The problem of preventing solid waste in the rear area of the diaper from entering the urinal front area, on which the subject-matter of claim 1 of the patent in suit is based, is not at all addressed in document (D1). Consequently, the person skilled in the art could not receive any hint from the disclosure of document D1 to arrange a ridge member extending along the article cross-direction inboard of said leg elastic members, i.e. in the middle of the waste loaded area, and to give it one of the configurations enumerated in claim 1 apt to keep the solid wastes away from the lateral borders in the crotch area of the article.

Documents (D3) to (D5) disclose certainly leg elastic members, which is an obvious feature in the field, they fail however to disclose a non linear ridge member inboard said leg elastics. Even the additional teaching of document (D6) does not make claim 1 obvious, because

this document also fails to disclose a ridge member (that is an element extending from the surface of the article) of an angular, H- or U-shaped configuration in the crotch region. The curvilinear separation element between the two parts of the absorbent article does not extend from the surface of the article and therefore it does not prevent waste mixing in the longitudinal direction by displacement along the surface and lateral leakage.

For the above reasons the subject-matter of claim 1 involves an inventive step.

6. *Claim 5*

6.1 Closest prior art

The Board agrees with the parties that document (D3) represents the closest prior art with respect to the subject-matter of claim 5.

Document (3) discloses an absorbent article comprising a backsheet layer (12), a substantially liquid-permeable liner layer (34), an absorbent body (38) located between said backsheet and liner layer, said backsheet and liner layers extending beyond lateral side edges of said absorbent body to form gatherable side margins of said article, one or more leg elastic members (96, Figure 4) being connected to each side margin to form elasticized gathers in the side margin.

The subject-matter of claim 5 distinguishes therefrom by the features in its characterizing part.



6.2 Inventive step

On the basis of the above individualized distinguishing features and according to the description of the patent in suit (see column 2, from line 28), the problem of the invention consists in reducing the leakage past the waistband section of the article and avoiding wrinkles and folds from the portion of the liner not having the ruffle panels.

The resilient barrier extending transversely across the article at the waistband section comprising a plurality of transversely aligned ridges extending perpendicularly from the line layer reduces leakage, whereby the ruffle elastic members transversely distributed in a substantially adjacent spaced relation over a cross-dimensionally medial section and having a total longitudinal extent of not more than about 50 percent of the total length of the absorbent article limit wrinkles and folds in the outside region.

No combination of the submitted documents of the prior art discloses all the features of the invention nor can lead in an obvious way to the invention as claimed in claim 5.

Document (D3) fails to disclose a barrier being resilient in the upward direction. The resiliency as claimed is particularly important for the purpose of the invention because it enables the barrier to tightly adhere by pressure to the body thereby being effective in stopping leakage. Furthermore document (D3) does not disclose a plurality of transversely aligned ridges. The alignment is also highly effective in avoiding leakage because in this way every ridge forms a barrier on its own and the waste material is prevented to migrate by a series of successive barriers which make the containment very effective.

The elastic members (96) cannot be seen as realizing the ruffle elastic members of the invention because they are not apt to form an elastic barrier as claimed in claim 5, in particular the wrinkles formed by said elastic members are not necessarily resilient in the upward direction, they do not extend perpendicularly from the line layer and they do not form transversely aligned ridges.

Even if the elastic members (96) reduced to a certain degree the wrinkles and folds in the region outside their location, they would not be so effective as the ruffle elastic members of the invention because they do not form transversely aligned ridges.

Consequently, document D3 does not disclose a resilient barrier in the waistband section.

The additional teaching of documents (D1) and (D5) cannot lead to the invention as claimed in claim 5 because they fail to disclose or to hint at a resilient barrier formed of a plurality of transversely aligned ridges. Document (D6) fails to disclose a resilient barrier in the waist section.

For the above reasons the subject-matter of claim 5 involves an inventive step.

**Order**

**For these reasons it is decided that:**

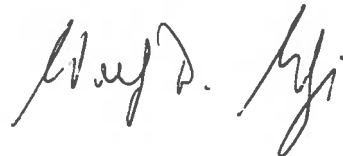
1. The decision under appeal is set aside
2. The case is remitted to the first instance with the order to maintain the patent in amended form in the following version:
  - Claims 1 to 14 as filed during the oral proceedings,
  - Description: page 4 as filed during the oral proceedings, the rest of the description as defined in the decision under appeal,
  - Figures as defined in the decision under appeal.

The Registrar:



S. Fabiani

The Chairman:



W. D. Weiß

