DECISION of 18 January 2001

Case Number: T 0753/98 - 3.2.6
Application Number: 91119386.0
Publication Number: 0486006
IPC: A61F 13/15

Language of the proceedings: EN

Title of invention: Absorbent article and method of making same

Patentee: KIMBERLY-CLARK WORLDWIDE, INC.

Opponents:
Paul Hartmann Aktiengesellschaft
SCA MOLNLYCKE AB

Headword: -

Relevant legal provisions: EPC Art. 56, 84

Keyword: "Amended claims - clarity (yes)"
"Novelty and Inventive step - (yes)"

Decisions cited: T 0301/87

Catchword: -
Case Number: T 0753/98 - 3.2.6

DECISION
of the Technical Board of Appeal 3.2.6
of 18 January 2001

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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 19 May 1998 revoking European patent No. 0 486 006 pursuant to Article 102(1) EPC.

Composition of the Board:
Chairman: P. Alting van Geusau
Members: T. Kriner
M. J. Vogel
Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal, received at the EPO on 29 July 1998, against the decision of the Opposition Division dispatched on 19 May 1998 concerning the revocation of the European patent No. 0 486 006. The appeal fee was paid simultaneously and the statement setting out the grounds of appeal was received at the EPO on 29 September 1998.

II. Opposition was filed against the patent as a whole by respondents I and II (opponents I and II) and based on Article 100(a) in conjunction with Articles 52(1), 54(1) and 56 EPC.

The Opposition Division held that the grounds for opposition cited in these Articles prejudiced the maintenance of the patent, in particular because the subject-matter of the patent in suit did not involve an inventive step.

III. From the documents considered by the Opposition Division, the following documents played a role during the appeal proceedings:

D1: FR-A-2 561 078
D2: EP-A-0 343 940
D3: FR-A-2 495 899
IV. Oral proceedings before the Board took place on 18 January 2001.

The appellant requested that the decision under appeal be set aside and the patent in suit be maintained on the basis of the following documents:

**Claims:** 1 to 46, filed during the oral proceedings;

**Description:** columns 1 and 2, filed during the oral proceedings;
columns 3 to 10 as granted;

**Drawings:** 1 to 10 as granted.

The respondents requested that the appeal be dismissed.

V. Independent claims 1 and 36 of the appellant's request read as follows:

"1. A disposable absorbent article (10) comprising a backsheet (14), a topsheet (12), an absorbent (16) between said backsheet (14) and said topsheet (12), and an elevating means (26) below said topsheet (12) for elevating at least a portion of said topsheet (12) away from said absorbent (16), the topsheet (12) having an opening (64) therein, wherein said opening (64) allows fecal matter to move underneath said topsheet (12), characterized in that the absorbent (16) comprises a hole (22) therein, communicating with said opening (64) and the elevating means (26) being positioned between said hole (22) and an article back edge (66), to space topsheet (12) above said absorbent (16) to form a pocket-like void, said
elevating means (26) being between and contacting both said topsheet (12) and said absorbent (16).

"36. A method of making a disposable absorbent article, comprising the steps of:
providing a backsheet and a topsheet having an opening therein, wherein said opening allows fecal matter to move underneath said topsheet,
positioning an absorbent having a hole therein between the backsheet and the topsheet which communicates with said opening, and
positioning an elevation means below said top-sheet between said hole and an article back edge, such that said elevating means is positioned between and contacts both, said topsheet and said absorbent, for spacing topsheet above said absorbent to form a pocket-like void."

VI. In support of its requests the appellant relied essentially on the following submissions.

The new feature of claims 1 and 36 according to which the elevating means are between and contact both the topsheet and the absorbent corresponded to feature 12 of the granted claims. Since the claimed arrangement of the elevating means was clearly shown in the drawings of the patent in suit, it was supported by the description and it was clear how this feature had to be interpreted.

Claim 1 was delimited over D4 which disclosed the most relevant state of the art. The essential contribution of the patent in suit to this state of the art was the arrangement of the elevating means in the back region of the absorbent article in the way described in the characterizing portion of claim 1. This arrangement
allowed fecal matter to move at the most critical area under the topsheet instead of moving up the cleft of the wearer. Furthermore, the claimed invention differed from the diaper shown in D4 by the provision of a hole in the absorbent.

None of the documents cited by the respondents gave any guidance to the claimed arrangement of the elevating means.

The elastic means described in D4 corresponded to the elastic members (52) according to the patent in suit, and could at best be regarded as elevating means in the crotch area of the diaper shown in this document. When the diaper according to D4 was worn, the facing sheet (13) was pushed down to the absorbent, in particular in the back region of the diaper. Therefore, D4 could not suggest providing an elevating means in this critical region for the intended purpose.

D4 and D5 could at best suggest providing a hole in an absorbent. However, these documents did not describe any elevating means.

D1 had been published at a time when disposable diapers had already been available. Even so, D1 referred to a reusable diaper of a special design made exclusively of plastic material. Consequently, the use of any absorbent material was explicitly excluded in the diaper of D1.

Therefore, the skilled person had no reason to use an absorbent in the diaper according to D1. If he nevertheless provided an absorbent, he would not use an absorbent having a hole therein, in particular not the one shown in D2, because this document did not suggest
using the absorbent in combination with a hole in a topsheet.

Since the available state of the art could not suggest using an absorbent and an elevating means as described in the characterizing portion of claim 1 in a disposable absorbent article, the subject-matter of claim 1 and of the corresponding claim 36 was not only new, but also involved an inventive step.

VII. Respondent I disputed the views of the appellant. His arguments can be summarized as follows.

The most relevant state of the art was represented by D1. This document did not only disclose an article which had the greatest number of technical features in common with the subject-matter of the contested patent, but which additionally was suitable for the purpose claimed by the alleged invention.

The subject-matter of the appellant's request differed from that which was disclosed in D1 essentially in that the claimed absorbent article was a disposable article and comprised an absorbent having a hole therein.

For the skilled person it was clear that the teaching of D1 was incomplete. Since the urine and fecal material contained in the pocket-like void (2) could escape from this void and would release a bad smell, it was obviously necessary to provide an absorbent in this void which avoided leakage of waste material and diminished the release of a bad smell. For this purpose the skilled person would select the absorbent disclosed in D2, in particular because D2 suggested the use of this absorbent for any absorbent article (see column 3,
Furthermore, since today's consumer would not buy a washable and reusable diaper, it was also clear for the skilled person that the article shown in D1 had to be disposable.

By completing the teaching of D1 and by adapting it to the consumer's demands as described above, the skilled person would inevitably create an article as defined in claim 1 of the appellant's request. Therefore, the subject-matter of claims 1 and 36 did not involve an inventive step.

VIII. Respondent II argued as follows.

The feature of claims 1 and 36 according to which the elevating means was between and contacted both the topsheet and the absorbent was not clear, because the description gave no support how this term had to be interpreted. In particular, it was not clear whether only a portion of the elevating means or the whole elevating means had to be in contact with the topsheet and the absorbent. Since the wording of amended claims should be clear, claims 1 and 36 did not meet the requirements of Article 84 EPC.

The most relevant state of the art was represented by D4. This document did not only show a disposable diaper as defined in the pre-characterising portion of claim 1, but additionally disclosed that the elevating means formed by the elastic means described amongst others in column 2, lines 27 to 31, was positioned between the opening in the topsheet and an article back edge, to space the topsheet (13) above the absorbent (11, 12) to
form a pocket like void. Moreover, it was clear that this elastic means was arranged between the topsheet and absorbent and contacted both elements at least in the waist band region.

Therefore, the subject-matter of claim 1 differed from that which was disclosed in D4 only by the provision of a hole in the absorbent for storing waste material so that it was kept away from the skin of the wearer.

Since the provision of a hole in an absorbent for the same purpose was already known from each of D3 and D5, the combination of the article in D1 with the teaching according to D3 or D5 was obvious and would result in the subject-matter defined in claim 1.

Consequently, the subject-matter of claims 1 and 36 of the appellant's request did not involve an inventive step.

Furthermore, respondent II supported respondent I's conclusions concerning D1 and submitted that the combination of D1 with any of D3 or D5 would also result in the claimed invention.

Reasons for the Decision

1. The appeal is admissible.

2. Amendments

Independent claims 1 and 36 of the present request differ from independent claims 1 and 37 of the patent specification by the addition of those features
according to which the claimed absorbent article is a disposable article, and the elevating means is positioned between and contacts both the topsheet and the absorbent.

These features have been disclosed in the originally filed description on page 1 and page 2, lines 1, 2, and in the originally filed claim 13.

The article in claim 1 and the method in claim 37 as defined in the patent specification have been disclosed for example in figure 8 and the corresponding description of the originally filed documents.

Dependent claims 2 and 37 of the appellant's request correspond to a portion of originally filed claims 2 and 44, respectively.

Dependent claims 3 to 35 correspond to originally filed claims 3 to 11, 14 to 35, 41 and 42, and dependent claims 38 to 47 correspond to originally filed claims 45 to 53.

The description has only been amended to adapt it to the claims according to the appellant's present request.

Therefore, none of the amendments give rise to objections under Article 123(2) or Article 123(3) EPC.

3. Clarity

3.1 According to the case law of the Boards of Appeal, Article 102(3) requires that amendments made to a patent during an opposition have to be examined to ascertain if the EPC, including Article 84, was contravened as a
result of the amendments.

3.2 In the present case, respondent II raised the objection that the new feature in claims 1 and 36 according to which the elevating means is positioned between and contacts both the topsheet and the absorbent lacked clarity and therefore did not meet the requirements of Article 84 EPC.

Not only was this feature already comprised in granted claim 12, the contested feature merely specifies that the elevating means is arranged in such a way between the topsheet and the absorbent that it is in contact with both of these elements. Although this instruction leaves it open how exactly the elevating means has to contact the topsheet and the absorbent, it cannot be regarded as unclear. In the Board's opinion, the skilled person is able to select a number of suitable arrangements of the elevating means so that the instruction of the contested feature is met, in particular since the drawings of the patent in suit show one example for such an arrangement.

Therefore, the present claims 1 and 36 are supported by the description and meet the requirements of Article 84 EPC with respect to both support and clarity.

4. Novelty

4.1 In terms of claim 1 of the patent in suit D1 discloses an article comprising a back sheet (6), a top sheet (10), and an elevating means (3) below said top sheet for elevating at least a portion of said top sheet,
the top sheet having an opening therein, wherein said opening allows fecal matter to move underneath said top sheet, the elevating means being positioned (amongst others) between said opening and an article back edge to form a pocket-like void; and

a method of making an article, comprising the steps of:

providing a back sheet (6) and a top sheet (10) having an opening therein, wherein said opening allows fecal matter to move underneath said top sheet,

positioning an elevation means (3) below said top sheet between said opening and an article back edge to form a pocket-like void.

However, D1 does not refer to a disposable absorbent article, and does not disclose an absorbent core between the back sheet and the top sheet.

4.2 D2 shows a disposable absorbent article (20) comprising a back sheet (40), a top sheet (38), an absorbent (48) between said back sheet and said top sheet,

the absorbent comprising a hole (56) therein; and

a method of making a disposable absorbent article (20), comprising the steps of:

providing a back sheet (40) and a top sheet (38), and positioning an absorbent having a hole therein between the back sheet and the top sheet.
However, D2 describes neither an opening in the top sheet nor any elevating means.

4.3 D3 refers to

a disposable absorbent article comprising a back sheet (1) and an absorbent (2, 4) comprising a hole therein (bordered by 5); and

a method of making an absorbent article, comprising the steps of:

providing a back sheet (1), and

positioning an absorbent (2, 4) having a hole therein on the back sheet.

However, the article according to D3 does not include a topsheet or an elevating means. The upper layer (2) shown in D3 cannot be regarded as a topsheet, because it is made of the usual material for diapers (see page 1, lines 24, 25) and therefore obviously forms part of the absorbent core.

4.4 D4 discloses

a disposable absorbent article comprising a back sheet (10), a top sheet (13), an absorbent (11) between said back sheet and said top sheet, and an elevating means (16) below said top sheet for elevating at least a portion (portion in the crotch area) of said top sheet away from said absorbent,

the top sheet having an opening (13c) therein, wherein said opening allows fecal matter to move underneath said
topsheet; and

a method of making a disposable absorbent article, comprising the steps of:

providing a back sheet (10) and a top sheet (13) having an opening therein, wherein said opening allows fecal matter to move underneath said top sheet,

positioning an absorbent (11) between the back sheet and the top sheet,

positioning an elevation means (16) below said top sheet.

Respondent II's argumentation according to which D4 additionally disclosed the features of the elevating means defined in the characterizing portion of claim 1, is not convincing.

It is true that the elastic bands (16) shown in the figures of D4 may be regarded as elevating means, because they are arranged so that they urge the topsheet (13) at least in the regions adjacent the opening (13c) away from the underlying absorbent (see figure 4 and column 1, lines 47 to 51). These elastic bands (16) are however not positioned in the back region of the diaper and they do not contact the topsheet and the absorbent.

With respect to the bands of elastic described in column 2, lines 26 to 30 which extend from the waist band region towards the central aperture, D1 is silent about their arrangement in relation to the topsheet and the absorbent. Furthermore, it is not clear whether the provision of these bands effectively results in an
elevation of the topsheet away from the absorbent, in particular when the diaper according to D4 is worn.

Therefore, D4 discloses neither an absorbent having a hole therein, nor an elevating means arranged in the way as defined in the characterizing portion of claim 1.

4.5 D5 shows

a disposable absorbent article comprising a back sheet (11) and an absorbent (10) comprising a hole (20) therein; and

a method of making a disposable absorbent article, comprising the steps of:

providing a back sheet (11) and positioning an absorbent (10) having a hole (20) therein on the back sheet.

However, D5 shows neither a top sheet nor an elevating means.

4.6 In view of these assessments, the subject-matter of independent claims 1 and 37 of the main request is deemed novel.

5. **Inventive step**

5.1 The object underlying the patent in suit is to provide a disposable absorbent article that is pocket-like in shape and which receives, isolates and contains waste material away from the skin of the wearer (see column 1, lines 36 to 39 of the patent specification).

5.2 Starting from D4 which is considered to represent the
closest prior art, this object is achieved

(a) by the provision of a hole in the absorbent so that it communicates with the opening in the topsheet, and

(b) by positioning the elevating means between the hole and an article back edge so that it is between and contacts both the topsheet and the absorbent, to space the topsheet above the absorbent to form a pocket-like void.

5.2.1 It is undisputed that the provision of a hole in an absorbent is known from D3 or from D5.

D3 suggests a hole for receiving and containing waste material. This hole constitutes the only space for this purpose in the diaper according to D3.

By contrast, the diaper shown in D4 already comprises a void between the topsheet (13) and the absorbent layer (11, 12) which is suitable to store waste material. However, having regard to the relatively large volume of this void and the relatively thin absorbent layer, the skilled person would not consider the possibility of enlarging the existing space for storing fecal matter by the additional provision of a hole in the absorbent.

The opening (20) forming the hole in the absorbent shown in D5 serves to deliver waste material to a pocket (25) formed between the backsheets and the absorbent of the known diaper.

Since the diaper according to D4 does not comprise such a pocket, there is no reason to provide the opening
according to D5 in the absorbent shown in D4.

Therefore, the Board cannot follow respondent II's line of argumentation according to which feature a) was suggested by each of D3 and D5.

5.2.2 Since none of the documents cited by the respondents discloses elevating means as defined in feature b) (see section 4 above), this feature is also not suggested by the available state of the art.

5.3 When starting from D1 as representing the most relevant state of the art, the object underlying the patent in suit is achieved by the following features:

(a) the article is a disposable absorbent article;

(b) an absorbent is provided between the backsheet and the topsheet;

(c) the absorbent comprises a hole therein, communicating with the opening in the topsheet;

(d) the elevating means is between and contacts both the topsheet and the absorbent and spaces the topsheet above said absorbent.

The argumentation of respondent I, according to which the skilled person would recognize that the teaching of D1 was not complete and not adapted to the demands of today's consumer, and therefore would add an absorbent to the diaper of D1 and make it disposable, is not convincing.

D1 was published at a time when disposable absorbent
articles were already well known (see for example D3 or D5), and intentionally presented a diaper of a different concept. The diaper according to D1 was designed so that it can be used numerous times (see page 2, line 19) and requires only a minimum of raw materials (see page 2, line 15). To achieve these demands, it is free of any absorbent material and it is made exclusively of polyethylene or another plastic material (see page 1, lines 15 to 17).

The transformation of the diaper according to D4 to a disposable diaper, and the provision of an absorbent within this diaper would therefore be against the teaching of D1. Consequently, the skilled person would not take these steps into consideration, even when recognizing that the diaper according to D1 does not meet the demands of today's consumers.

Furthermore, even if the skilled person made the diaper according to D1 disposable and provided in its pocket-like void an absorbent having a hole therein, this would not result in a diaper including feature d), because none of D1, D2, D3 or D5 teaches an arrangement of an elevating means so that it is in contact with the absorbent and spaces the topsheet above the absorbent.

A combination of the diaper disclosed in D1 with any of the absorbents shown in D2, D3 or D5 is therefore not obvious.

5.4 With respect to the assessments above, the Board comes to the conclusion that the subject-matter of claims 1 and 37 according to the appellant's main request cannot be derived in an obvious manner from the cited prior art and accordingly involves an inventive step. These claims
together with their dependent claims 2 to 36 and 38 to 47, the amended description and the drawings as granted therefore form a suitable basis for maintenance of the patent in amended form.

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 on the basis of the following documents:

   **Claims:** 1 to 46 filed during the oral proceedings on 18 January 2001;

   **Description:** columns 1 and 2 filed during the oral proceedings on 18 January 2001; columns 3 to 10 as granted;

   **Drawings:** 1 to 10 as granted.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau