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**D E C I S I O N**  
**of 6 May 2004**

**Case Number:** T 1073/01 - 3.2.6

**Application Number:** 94926642.3

**Publication Number:** 0716587

**IPC:** A61F 13/15

**Language of the proceedings:** EN

**Title of invention:**  
Disposable Menstrual Panty

**Patentee:**  
KIMBERLY-CLARK WORLDWIDE, INC.

**Opponent:**  
SCA Hygiene Products AB

**Headword:**

-

**Relevant legal provisions:**  
EPC Art. 56, 123(2), 100(c)

**Keyword:**  
"Admissibility of amendments - yes"  
"Inventive step - yes"

**Decisions cited:**

-

**Catchword:**

-



Case Number: T 1073/01 - 3.2.6

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.6  
of 6 May 2004

**Appellant:** SCA Hygiene Products AB  
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**Respondent:** KIMBERLY-CLARK WORLDWIDE, INC.  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 20 July 2001  
rejecting the opposition filed against European  
patent No. 0716587 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** P. Alting van Geusau  
**Members:** G. L. De Crignis  
J. H. Van Moer

## Summary of Facts and Submissions

I. European Patent No. 0 716 587, granted on application No. 94926642.3 was maintained as granted by decision of the opposition division posted on 20 July 2001. It based the decision on the finding that the subject-matter of claim 1 of the patent had not been amended such that it contained subject-matter extending beyond the content of the application as originally filed (Article 123(2) EPC), that the subject-matter of claim 1 was novel (Article 54 EPC) and that it involved an inventive step (Article 56 EPC). In arriving at this conclusion it referred to various documents, of those the following documents are relevant for the present decision:

D1 WO-A-89/07923

D2 US-A-4 560 381

D5 US-A-4 205 679

II. The appellant (opponent) both filed a notice of appeal against this decision and paid the appeal fee on 28 September 2001. On 29 November 2001 the grounds of appeal were filed and a further document, D11 (US-A-4 031 568) was submitted.

III. In a communication pursuant to Article 11(2) of the Rules of Procedure of the Boards of Appeal dated 17 December 2003 and sent together with the summons to oral proceedings, the Board expressed doubts as to whether the requirements of Article 100(c) EPC or

Article 123(2) EPC were met by the claims in accordance with respondent's requests.

IV. Oral proceedings were held on 6 May 2004 at the end of which the Chairman announced the decision.

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent requested to maintain the patent on the basis of claim 1 submitted during the oral proceedings as the main and only request.

Claim 1 of this request reads:

"A disposable panty (12) adapted to receive a primary absorbent (45), said primary absorbent (45) having a liquid permeable inner sheet, a liquid impermeable outer sheet and an absorbent member disposed therebetween, said disposable panty (12) comprising.

a) an outer cover (13) having front (14) and back (15) body portions connected by a crotch portion (18), said front (14) and back (15) body portions connected together to form a waist opening (20) and two leg openings (28,30); and

b) an absorbent barrier composite (46) associated with said crotch portion (18), to which said primary absorbent (45) is fastened and which, in use, holds said primary absorbent (45) against the body of a user, said absorbent barrier composite (46) having an impervious layer (48) and a secondary absorbent (50), characterized in that

when the panty (12) is in a preassembled flat configuration the edge of said leg opening (28,30)

toward said back portion (15) of said disposable panty (12) is essentially linear, the back half of the leg opening being straight for a length  $\theta$  of at least 70% wherein the straight section  $\theta$  of the back half of the leg opening forms an acute angle  $\alpha$  with the longitudinal centerline A-A of the panty (12)."

- V. In support of its request for revocation of the patent the appellant essentially put forward the following submissions:

The term "essentially linear" was disclosed in the original application in claim 13 in combination with the edge forming a  $60^\circ$  angle with the longitudinal centreline of the panty. Therefore, this term should not be taken in isolation but in this particular combination. Furthermore, claim 13 in the original application was solely dependent on claim 1 and therefore, referred to one discrete particular embodiment. Originally filed independent Claim 28 referred to another combination in which the majority of the length of the back half of the edge of the leg opening was linear. These two different embodiments were disclosed as separate identities and their features could not be intermixed without infringing the requirements of Article 123(2) EPC.

Starting from D2 as the most relevant prior art, the problem to be solved was to improve fit and avoid leakage.

In column 1, lines 34 to 40 and lines 55 to 59 of D2 these general issues when developing panties were addressed and when trying to optimize the fit the skilled person would in particular consider the fit in the buttock area and turn to D5 referring generally to the problem of good conformability and fit in the leg area (column 2, line 18, lines 42/43, lines 60 to 68 and column 5, line 23). In Figures 20 and 21 of D5 a panty with more than 70% of straight lines in the back half was disclosed and the description thereof referred to rectilinear sections (column 10, line 13). Therefore, the skilled person faced with the problem that the fit of the circular or oval leg opening of D2 should be further improved with particular reference to the buttock area, would obviously straighten the back half section of the leg opening as shown in Figures 20 and 21 of D5. Hence, no inventive step was involved.

The appellant further referred to D1 and considered its disclosure as equivalent to the one of D2. Hence the same line of argumentation would apply to the combination of D1 with D5.

VI. The arguments of the respondent can be summarised as follows:

The description of the originally filed application on page 13, first paragraph (identical to column 9, paragraph 37 of the patent in suit) formed the basis for the amendments. From this paragraph it was immediately apparent that, also when taking into account Figure 1, a straight line was intended by the expression "essentially linear". Furthermore, the acute angle specified in claim 1 was disclosed in combination

with at least about 70% of the straight section  $\theta$  of the back half of the leg opening. Only a further preferred embodiment required an angle of 60°. Therefore, there was sufficient support for the claimed broader combination and the requirements of Article 123(2) EPC were met.

A disposable panty having the pre-characterising features was known from D2. The leg openings of these panties were disclosed as being circular or oval.

D5, considered pertinent by the appellant, concerned a disposable diaper and not a menstrual panty. It referred to the general object of improved conformability and fit (column 2, line 19, line 42, line 60 and column 5, line 23). However, it provided numerous figures with different layouts of the leg opening and no particular reference to a certain layout in view of the claimed features could be identified. The object of buttock coverage was not mentioned in this disclosure nor the importance of a straight part of the opening in the laid out flat configuration of the diaper.

Therefore, the skilled person could not deduce the particular features claimed from the combination of D2 and D5.

## Reasons for the Decision

1. The appeal is admissible.

2. *Amendments*

2.1 It is undisputed that the term "essentially linear" mentioned in the granted claim 1 is only to be found in the originally filed dependent claim 13. This claim relates to the disposable panty of the originally filed claim 1 in which "the edge of said leg opening toward said back portion of said disposable panty is essentially linear and forms a 60° angle with the longitudinal centerline of said panty".

Considering the formal acceptability of the amended Claim 1, it first has to be assessed whether the newly defined combination of features concerning "the edge of said leg opening toward said back portion of said disposable panty is essentially linear, the back half of the leg opening being straight for a length  $\theta$  of at least 70% and wherein the straight section  $\theta$  of the back half of the leg opening forms an acute angle  $\alpha$  with the longitudinal centreline A-A- of the panty" is disclosed in the application as originally filed to define an embodiment falling within the meaning of the term "essentially linear" of the granted claim 1, and without the limitation that the edge forms a 60° angle with the longitudinal centreline of the panty as required by the combination of the original claim 13.



2.2 Generally speaking, an edge or other line segment that is "essentially linear" is the connection between two points of reference that comes close to resembling a straight line; "essentially linear" therefore includes curved lines of relatively large radius or combinations of straight lines and other lines so that the connection between the two points qualifies for the term "essentially linear".

2.3 A number of preferred embodiments in which the back half of the leg opening is straight for a length  $\theta$  of at least 70% of the length of the entire back half are disclosed on page 13, first paragraph, of the application as filed (see paragraph 00037 of the patent in suit).

This means that in these originally disclosed embodiments at least 70% of the entire back half length of the leg opening is a straight line, which total segment therefore is considered to qualify for the expression "essentially linear" and can therefore be used to limit the scope of the term "essentially linear" mentioned in the granted claim 1 without infringing the requirements of Article 123(2) EPC.

It is further disclosed in relation to a first of these embodiments, that the straight section  $\theta$  of the back half of the leg opening forms an acute angle  $\alpha$  with the longitudinal centreline A-A of the panty. Only a further preferred embodiment referred to requires this acute angle to be  $60^\circ$ . Obviously this further preferred embodiment is the basis for the subject-matter of the originally filed claim 13.

Now coming to the issue concerning the specific preferred embodiment claimed in the originally filed claims, raised by the appellant, the disclosure of the preferred embodiments in the description shows that there is only a requirement for all these embodiments having an "essentially linear" section in the back half opening that that section forms an acute angle  $\alpha$  with the longitudinal centreline A-A- of the panty.

In view of this support in the originally filed application documents the Board concludes that the present combination of features as referred to above, has a sufficient basis in the application as filed and therefore meets the requirements of Article 84 and 123 (2) EPC.

- 2.4 A further embodiment is disclosed in independent claim 28 of the originally filed application. In this embodiment a panty is specified in which the majority of both the back and front half of the edge of the leg opening are linear and specific angles between the linear parts and the longitudinal centre line A-A are specified. However, this embodiment relates to an even further preferred embodiment within the scope of the present claims and therefore, cannot influence the finding above.
- 2.5 The additional amendment, concerning the introduction of the requirement that the panty should be in the preassembled flat configuration when assessing the length of the straight portion and angle, is also disclosed on page 13, first paragraph of the originally filed application documents in combination with the

other features of the claim and therefore does not give rise to objections under Article 84 and 123(2)(3) EPC.

2.6 Since, by the introduction of the additional features, the scope of the current claim 1 is restricted when compared to that of the granted claim 1, the requirements of Article 123(3) EPC are also not impinged.

2.7 The description has been amended to define the object and its solution in consistency with claim 1 and these amendments also do not give rise to objections under the EPC.

### 3. *Novelty*

Novelty of claim 1 has not been disputed. The subject-matter of claim 1 differs from all the cited training pants and particularly from the one disclosed in D2 by the features of the characterising portion.

### 4. *Late filed document D11*

The admission of a document which has been filed after the 9-month period of Article 99 EPC mainly depends on its relevance for the decision to be taken. The subject-matter of current claim 1 of the patent in suit is limited to the back half of the leg opening being straight for a length of at least 70%. Since D11 does not disclose straight lines in the claimed area, its relevance with respect to the discussion of inventive step is less than that of other documents relied upon by the appellant and which were cited in time. For this reason D11 is not considered further in the decision.

5. *Inventive step*

- 5.1 D2 forms the closest state of the art. It undisputedly discloses a disposable menstrual panty with all the features of the preamble of claim 1.
- 5.2 The technical object underlying the patent in suit is to provide an improved leg opening with respect to buttock coverage and to prevent the panty from tilting forward (see new page 2a and column 9, lines 28 to 41 of the patent in suit). This object is fulfilled by the claimed design of the leg opening.
- 5.3 The problems addressed in D2 mainly concern avoiding soiling or staining of the panty or outergarments (column 3, lines 5 to 8) and refer to the use of any size, type or shape of outer panty shell in combination with a napkin of any size, type or shape (column 4, lines 3 to 6 and column 16, lines 47 to 50). However although, with respect to size, type or shape the pants can be adapted according to the needs no further emphasis is given to the design of the leg opening. The design of the leg opening is disclosed as generally circular or oval (column 7, lines 13 to 15) and nothing in D2 suggests modification of this shape to improve avoidance of soiling.
- 5.4 Furthermore, there is no direct indication to be found in the cited documents that the skilled person would try to optimize the size and form of the leg opening in order to improve buttock coverage and reduce tilting forward.

5.5 The teaching of D5, considered pertinent by the appellant in this respect, refers to the good conformability and fit of a disposable undergarment both in connection with waist and leg openings. With respect to the leg apertures it suggests longitudinally oblong cut-outs in the blank (column 2, lines 51 to 53). Furthermore, it discloses with reference to the embodiments shown in Figures 18 to 22, that the crotch section is comprised of a rectilinear section. Thus, considering the problem to be solved more general in terms of better fit the skilled person could be aware that an oblong cut-out shown in Figures 20 and 21 with straight portions in the crotch section could be considered as an improvement. However, in D5 no front half or back half of the crotch portion is defined and having regard to Figures 20 and 21 the straight section of the crotch portion extends from the front half into the back half of the leg openings. This extension of the straight section can only be deduced from these figures. The description does not refer to a particular percentage or a specific starting (ending) point of the straight line.

5.6 The leg opening mentioned in the characterising part of claim 1 of the patent in suit is defined by a back half and a front half, the back half is straight for a length of at least 70% and this straight section of the back half forms an acute angle with the centreline. The back half is seen as starting (or ending) at the centreline B-B as shown in Figure 1 and also the straight line is accordingly starting (or ending) at this point.

5.7 Comparing now the disclosure of D5 with what is claimed in the patent in suit, the opinion of the appellant that the skilled person could deduce a straight portion of 70% in the claimed combination from the disclosure of D5 clearly has no basis in D5. In particular the percentage of the back half being a straight line is neither disclosed in its description nor clearly derivable from its drawings. From the relevant drawings (Figures 20 and 21) it can only be derived that a straight portion is present in the crotch area and back half portion. However, this known straight portion extends widely into the crotch area so that any attribution of a specific portion of the straight line being part of the back half portion fails because of lack of any information about where the crotch portion begins or ends.

Since any indication towards the construction of the leg opening with one straight line of a certain length in only the back half is lacking that embodiment cannot lead to the subject-matter of claim 1. Hence, a combination of the teaching of D2 with that of D5 will not immediately result in the design as claimed.

5.8 Furthermore, document D1 was cited as disclosing subject-matter equivalent to the one of D2. D1 discloses a disposable undergarment with circular leg openings (see Figures 2 and 6). Hence, the arguments set out above apply mutatis mutandis in case the argumentation for lack of inventive step starts from D1. The further documents which had been discussed in the opposition proceedings were not discussed during the appeal proceedings since they are even more remote than the one cited and for that reason cannot lead to the

claimed solution of the underlying technical problem either.

5.9 Summarising, in the Board's judgment, the proposed solution to the technical problem underlying the patent in suit defined in the independent claim 1 is inventive and therefore this claim as well as its dependent claims 2 to 28 relating to particular embodiments of the invention, can form the basis for maintenance of the patent (Article 52(1) EPC).

Thus taking into account the amendments made by the appellant, the patent and the invention to which it relates meet the requirements of the EPC, and the patent as amended is maintained in this form (Article 102(3) EPC).

## 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 with the following documents:
  - claim 1 as filed during the oral proceedings;  
claims 2 to 28 as filed with letter of 5 April 2004
  - description: columns 1 to 4 and 9 and 10 filed at the oral proceedings; columns 5 to 8 and 11 to 14 as granted
  - Figures 1 to 4 as granted

The Registrar:

The Chairman:

M. Patin

P. Alting van Geusau