BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [ ] To Chairmen
(D) [X] No distribution

D E C I S I O N
of 28 June 2004

Case Number: T 0933/01 - 3.2.6

Application Number: 94924145.9

Publication Number: 0714272

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:
Disposable absorbent article having capacity to store low-viscosity fecal material

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponent:
Paul Hartmann AG

Headword:
-

Relevant legal provisions:
EPC Art. 52(2), 83, 54(3),(2), 111(1)

Keyword:
"Patentable invention - technical features defined by test parameter"
"Sufficiency of disclosure (yes)"
"Novelty (yes)"
"Burden of proof"
"Remittal (yes)"

Decisions cited:
T 0150/82, T 0219/83, T 0585/92, T 0378/94

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0933/01 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 28 June 2004

Appellant: (Proprietor of the patent)	The Procter & Gamble Company One Procter & Gamble Plaza Cincinnati, Ohio 45202 (US)
Representative:	Hirsch, Uwe Thomas Procter & Gamble European Service GmbH Sulzbacher Strasse 40-50 D-65824 Schwalbach am Taunus (DE)
Respondent: (Opponent)	Paul Hartmann AG Paul-Hartmann-Strasse 12 D-89522 Heidenheim (DE)
Representative:	Friz, Oliver Patentanwälte Dreiss, Fuhlendorf, Steimle & Becker Gerokstrasse 1 D-70188 Stuttgart (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted 26 July 2001 revoking European patent No. 0714272 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Pricolo
J. H. Van Moer

Summary of Facts and Submissions

I. The appeal is from the decision of the Opposition Division posted on 26 July 2001 to revoke European patent No. 0 714 272, granted in respect of European patent application No. 94924145.9.

Granted claim 1 reads as follows:

"A disposable absorbent article (20) comprising:
a liquid pervious first topsheet (24)
a liquid impervious backsheet (26) at least partially peripherally joined to said first topsheet (24)
a fecal material storage element (25) intermediate said first topsheet (24) and said backsheet (26), said fecal material storage element (25) having two major faces, a first major face oriented towards said first topsheet (24) and a second major face oriented towards said backsheet (26)
characterized in that
said disposable absorbent article has a trans-topsheet capacity of greater than 0.2 grams/6.45 square centimeter (1 square inch)."

II. In the decision under appeal the Opposition Division, while accepting that the claimed absorbent article was not excluded from patentability pursuant to Article 52(2) EPC and that the European patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, considered that the subject-matter of claim 1 lacked novelty over the prior art disclosed by documents

D1: WO-A-94/28843;

or

D3: JP-A-62-276003.

III. The appellant (patentee) lodged an appeal, received at the EPO on 23 August 2001, against this decision and simultaneously paid the appeal fee and filed the statement setting out the grounds of appeal.

IV. In a communication accompanying the summons for oral proceedings pursuant to Article 11(1) Rules of Procedure of the boards of appeal the Board expressed the preliminary opinion that it would appear that the parameter "trans-topsheet penetration" mentioned in D1 differed from the parameter "trans-topsheet capacity" in accordance with the patent in suit because the former was determined by a test carried out only on the topsheet whilst the latter was determined by a test carried out on the absorbent article as a whole. Furthermore, since the trans-topsheet capacity of an absorbent article was influenced by the absorbent characteristics of the layers below the topsheet, it had to be discussed whether, having regard to the disclosure of characteristics of the topsheet and of the absorbent structure below the topsheet in D3, it could be directly and unambiguously concluded that the absorbent article of D3 had a trans-topsheet capacity greater than 0.2 grams/6.45 square centimeter as required by claim 1 of the patent in suit.

V. Oral proceedings, at the end of which the decision of the Board was announced, took place on 28 June 2004.

The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted.

The respondent (opponent) requested that the appeal be dismissed.

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

The fact that a claim included a non-technical feature as alleged by the respondent did not imply that the claimed subject-matter was non-technical. In any case, the result of the test for determining the trans-topsheet capacity was a value which gave a technical characterization of the absorbent article. Thus, the invention was not excluded from patentability pursuant to Article 52(2) EPC.

The description of the patent in suit disclosed various examples of topsheets, fecal material storage elements, absorbent cores and backsheets suitable for use as components of an absorbent article meeting the requirements of claim 1. The specific examples 7 to 9 of absorbent articles given in table II of the patent in suit were not representative of diapers usable in practice, since a filter paper was used instead of the absorbent core. However, the absorbent properties of the absorbent core were essentially irrelevant for the determination of the trans-topsheet capacity; only the characteristics of the topsheet and of the fecal material storage element were relevant for this purpose. Therefore, the invention was disclosed in a

manner sufficiently clear and complete for it to be carried out by a skilled person.

The trans-topsheet capacity of an absorbent article intended as a whole could not be inferred from the disclosure in D1 of trans-topsheet penetration values of topsheets. In the absorbent article of D1, the layer corresponding to the fecal material storage element of the patent in suit was a nonwoven layer. In the step of removing the weight from the sample during the test for determining the trans-topsheet capacity, some of the test fluid which had penetrated the nonwoven layer under the action of the weight would flow back and would then be removed together with the topsheet. As a consequence, the increase in weight of the sample, i.e. the trans-topsheet capacity of the absorbent article, would be low and would fall outside the claimed range.

The fecal material storage element of D3, a fibre aggregate layer, was structurally different from the examples in the opposed patent. There was no basis to conclude that the combination of topsheet and fecal material storage element of D3 would provide a trans-topsheet capacity falling within the claimed range. In any case, the burden of proof for this fact remained with the opponent-respondent, whose arguments were speculative.

VII. The respondent essentially argued as follows:

The characterizing portion of claim 1 defined a range for the parameter "trans-topsheet capacity", which parameter was the result of a test described in the specification of the patent in suit. Accordingly, the

claimed absorbent article was distinguished from the prior art only by a "product-by–test" feature, which did not define any structural feature of the claimed absorbent article and was therefore a non-technical feature. An exception to the principle according to which a product was to be defined by means of its structural features was represented by a "product-by-process" claim. In the case in question, however, there were no particular circumstances which would justify a product-by-test characterization of the absorbent article. Moreover, the product-by-test claim required the claimed absorbent article to be already available before performing the test. The claim merely gave an instruction to carry out a test procedure on such an already available product. This could not be regarded per se as a technical invention. Since the only feature in the characterizing portion of claim 1 lacked technical character, the claimed product was excluded from patentability pursuant to Article 52(2) EPC.

The patent in suit did not disclose any examples of absorbent articles falling within the terms of claim 1. Although the description mentioned examples of "diapers in accordance with the invention", these were not examples of diapers since a filter paper was used instead of an absorbent core. Moreover, since the diaper's components in the examples were identified by commercial names and these were normally not associated to product specifications immutable in time, there was no certainty that the same components used in the examples would be available for the whole lifetime of the patent. The skilled person could only establish by trial and error whether or not his choice of particular components of the absorbent article would provide a

satisfactory result. This amounted to an undue burden and therefore the requirements of Article 83 EPC were not met.

D1 related to a disposable absorbent article in which the topsheet was characterized by the parameter "trans-topsheet penetration" which was measured by a test procedure identical to that described in the patent in suit for determining the trans-topsheet capacity of the whole absorbent article. In some examples of D1 the same components were used as those used in the examples of the patent in suit. In particular, the same topsheets were used. Considering that in accordance with the patent in suit the fecal material storage element could even be paper, implying that the function thereof could simply consist in immobilizing the low-viscosity fecal material, that in D1 the layer underlying the topsheet and corresponding to said fecal material storage element could consist of a nonwoven web without discrete apertures which also served to immobilize the fecal material thereon, and that in such case it was irrelevant what kind of absorbent core was provided underneath said layer, it was clear that D1 disclosed an absorbent article which trans-topsheet capacity necessarily was within the range claimed in the patent in suit. This applied also, in analogous manner, to the diaper of document D3: the topsheet of the known absorbent article was provided with sufficiently large holes which allowed for soft stool to pass through it and underneath the topsheet a fibrous layer was provided which was designed to hold soft stools.

Although according to the case law it was the opponent that carried the burden of proof in respect of lack of novelty, in the present case in which the invention was characterized solely by a test parameter and the probability that the structural features of the prior art's products met the claimed requirements for said test parameter were very high, it was justified to shift the burden of proof to the patentee to prove the contrary.

Reasons for the Decision

1. The appeal is admissible.

2. *Non patentable subject-matter, Article 52(2) EPC*

2.1 The characterizing portion of claim 1 specifies that the disposable absorbent article has a trans-topsheet capacity of greater than 0.2 grams/6.45 square centimeter. The value of the trans-topsheet capacity is determined by carrying out the test described on pages 6 and 7 of the contested patent. The test per se is of technical nature, in that it involves technical steps carried out on a technical article (a sample of the absorbent article) with technical means. In particular, the test involves dispensing a test fluid, which is an analog of a fecal material (paragraph [0054]), onto the top of a sample of an absorbent article, placing a weight on the test fluid (paragraph [0052] of the patent in suit), removing the weight and the topsheet from the sample, and verifying the increase in weight of all layers of the sample underlying the topsheet (paragraph [0053]). The test

accordingly gives an indication of the capacity of the absorbent article to receive and store a fecal material, which is a technical property since it refers to a specific technical performance of the absorbent article. This technical performance does not depend on a specific structural feature of the absorbent article, but on the combination of structural features of the various components of the absorbent article, since the topsheet must be such as to allow the test fluid to penetrate therethrough and the layers underlying the topsheet must be such as to retain the test fluid. Therefore, since the feature of the characterizing portion of claim 1 is directly determined by the structural features of the absorbent article, it is to be regarded as a technical feature.

2.2 The characterizing portion of claim 1 cannot be regarded as merely giving the instruction to carry out a test, but as imparting the teaching to select the various components of the absorbent article in such a manner that the value of the trans-topsheet capacity determined with the test has a desired value and, consequently, the absorbent article has a desired performance. It is true that the absorbent article must be already available before performing the test. However this does not necessarily mean that the **claimed** absorbent article must be available before performing any tests. In fact, it is possible to arrive at the claimed absorbent article by trial and error (see point 3 below), by adjusting the selection of the various components of the absorbent article after each unsuccessful test.

2.3 The respondent has referred to the particular case of a "product-by-process" claim as the exceptional case in which characterization of a product by non-structural features were allowable.

In accordance with the established case law (see e.g. T 150/82, OJ 7/1984, 309, point 10 of the reasons) the form for a claim to a patentable product as such defined in terms of a process of manufacture (i.e. "product-by-process claims") should be reserved for cases where the product cannot be satisfactorily defined by reference to its composition, structure or some other **testable parameters**. In the present case, however, claim 1 refers exactly to a testable parameter, namely the trans-topsheet capacity. The definition of an invention by terms of parameters is allowed in European practice (see in this respect point 1 of the decision under appeal) and is in particular usual in the field of absorbent products (see e.g. T 48/95, point 2.5 of the reasons).

2.4 Therefore, since the feature of the characterizing portion of claim 1 has a technical character, the claimed subject-matter does not fall in a field excluded from patentability under Article 52(2) EPC.

3. *Sufficiency of disclosure (Article 83 EPC)*

3.1 The patent in suit discloses various possible materials for the essential components of the claimed absorbent article, namely the topsheet, the backsheet (paragraph [0038]), and the fecal material storage element (paragraphs [0070] to [0074]).

As regards the topsheet (see paragraphs [0041] and [0042]), it may consist of apertured plastic films, woven or nonwoven webs of natural fibers, etc. It may allow penetration of the fecal material to achieve the trans-topsheet capacities in accordance with the patent in suit by having apertures with an effective aperture size of at least 0.2 square millimeters, preferably at least 0.3 square millimeters (see paragraph [0058]). The fecal material storage element may consist of a cellulosic fibrous structure as illustrated in Figure 4, having a continuous high basis weight network 56 with discrete regions or apertures 58 which form cells which immobilize the low-viscosity fecal material (paragraphs [0070] to [0071]). The dimensions of the cells and the basis weight are specifically indicated in the patent in suit (paragraphs [0072] to [0074]). Considering that the backsheet is impervious to liquid (paragraph [0038]) and therefore does not contribute to the trans-topsheet capacity since it does not absorb fluids, the combination of the above-mentioned apertured topsheet and fecal material storage element with a liquid impervious backsheet would result in an absorbent article meeting the requirements of claim 1.

In any case, even if topsheets and fecal material storage elements different from those above-mentioned are used, the skilled person would arrive at an absorbent article in accordance with claim 1 through a reasonable amount of trial and error, because the specification includes adequate information leading necessarily and directly towards success through the evaluation of initial failures. Indeed, given the various materials for the topsheet and the fecal material storage element disclosed in the patent in

suit, if a first combination of such materials would result in a trans-topsheet capacity smaller than 0.2 grams/6.45 square centimetre, then the skilled person could easily evaluate the cause of failure and take adequate countermeasures such as the selection of a topsheet having improved permeability in respect of the test fluid (see paragraph [0058]) or a fecal material storage element having improved capacity of immobilizing the test fluid (see paragraph [0069]).

Therefore, since the disclosure of the patent in suit is sufficient in the sense of Article 83 EPC, the ground of opposition under Article 100(b) EPC does not prejudice the maintenance of the patent.

3.2 The patent in suit refers to six diapers according to the invention (page 7, lines 24, 25), in which commercial topsheets and various fecal material storage elements are used (see table II on pages 7 and 8, examples 5 to 10). Instead of an absorbent core, these diapers are provided with a filter paper (page 7, lines 28, 29) and therefore, as acknowledged by the appellant itself, they do not constitute examples of diapers usable in practice. Nevertheless, they still constitute examples of absorbent articles. Furthermore, even if the commercial names of the topsheets do not clearly identify a particular topsheet or such topsheets are no longer available, as submitted by the respondent, there would be no difficulty for the skilled person to find appropriate topsheets, in the light of the disclosure of the patent in suit (see e.g. paragraph [0058]), allowing to achieve values of the trans-topsheet capacity close to those disclosed in table II of the patent in suit. Anyway, the examples of

table II are not essential for the reproducibility of the invention, for the reasons given in paragraph 3.1 above.

4. *Novelty*

4.1 Document D1 is an international application having a publication date of 22 December 1994 and claiming a priority date of 11 June 1993 which lies before the priority date 17 August 1993 of the patent in suit. The international application satisfies the requirements of Article 158(2) EPC and therefore, according to Article 158(1) EPC, and the validly claimed priority of the patent in suit, constitutes prior art within the meaning of Articles 54(3) EPC. It undisputedly discloses (see Fig. 2) a disposable absorbent article according to the preamble of claim 1 of the patent in suit, which comprises (using the wording of claim 1): a liquid pervious first top sheet (24), a liquid impervious back sheet (26) at least partially peripherally joined to said first topsheet, a fecal material storage element (secondary topsheet 25; see e.g. page 19, lines 35 to 38) intermediate said first topsheet and said backsheet, said fecal material storage element having two major faces, a first major face oriented towards said first topsheet and a second major face oriented towards said backsheet.

D1 (see claim 1) refers to the parameter "trans-topsheet penetration" for characterizing the secondary topsheet (corresponding to the fecal material storage element of the patent in suit). The trans-topsheet penetration is determined by means of a test which involves the same steps (see pages 12 and 13 of D1) of

the test disclosed in the patent in suit (see pages 6 and 7) for determining the trans-topsheet capacity. However, the trans-topsheet penetration is a parameter which refers only to the topsheet of the absorbent article, and indeed in the test for its determination the topsheet is placed on a **standard substrate** consisting of a large cell vacuum formed polyolefinic film X5790 available from Tredegar Corporation (see the paragraph bridging pages 12 and 13) and a 989 filter paper made by Eaton-Dikeman Division of Knowlton Brothers (page 13, lines 15 to 20). In contrast thereto, the sample used for determining the trans-topsheet capacity in accordance with the patent in suit comprises the various components of the absorbent article (see paragraph [0050] of the patent in suit). Nowhere in D1 it is disclosed that the assembly of topsheet and substrate (X5790 film and filter paper) is used in a disposable absorbent article, in particular one having, in accordance with the definition of claim 1, a liquid impervious backsheet.

Therefore, the conclusion of the Opposition Division that the "result of the test is the same whether it is called trans-topsheet penetration or trans-topsheet capacity" (page 4, penultimate paragraph of the decision under appeal) cannot be followed because in the first case only the topsheet is tested whilst in the latter case it is a sample of the entire diaper which is tested. Also the conclusion that the fecal material storage element formed of an X5790 film should be "considered as constituting the secondary topsheet in D1 and being the faecal material storage element in the patent in suit" (page 6, first paragraph of the decision) cannot be followed, because there is no

disclosure in D1 referring to the use of such X5790 film as the secondary topsheet of an absorbent article.

From the above it follows that the disclosure of the trans-topsheet penetration values for various topsheets in table II of D1 (page 17) cannot be used as the basis for evaluating the trans-topsheet capacities of absorbent articles using these topsheets.

D1 discloses that the secondary topsheet may be provided in the form of a nonwoven web without discrete apertures (page 20, lines 9 to 13). However, even if a topsheet identical to one of those used in the patent in suit (in examples 6 to 10 in table II of the patent in suit the topsheet used is the same of that used in, respectively, examples 3, 3, 4, 3, 2, 1 in table II of D1) is used in combination with this nonwoven web, it cannot be directly and unambiguously inferred from the disclosure of D1 that such combination would result in an absorbent article which trans-topsheet capacity is greater than 0.2 grams/6.45 square centimeter. It is true that the nonwoven web is such as to immobilize the fecal material (page 19, last paragraph). However, the test for determining the trans-topsheet capacity involves supplying a test fluid to the sample, placing a weight on the test fluid and then removing the weight (paragraphs [0052] and [0053] of the patent in suit), and nothing can be inferred from the disclosure of D1 in respect of what happens with the test fluid immobilized by the nonwoven web when the weight is removed. In fact at that time the test fluid may flow back onto the surface of the topsheet, as argued by the appellant, whereby it is removed together with the topsheet in the subsequent step of the test procedure

(paragraph [0053] of the patent in suit, second sentence). In such a case, the increase in weight of all layers of the sample, i.e. the trans-topsheet capacity (paragraph [0054] of the patent in suit) may be low and well below the claimed limit of 0.2 grams/6.45 square centimeter.

Therefore, since it cannot be clearly and unambiguously derived from the written disclosure of D1 that the absorbent article disclosed therein meets the claimed requirement of a trans-topsheet capacity greater than 0.2 grams/6.45 square centimeter, the subject-matter of claim 1 must be regarded as novel over D1.

4.2 As regards D3, reference is made to its English translation since it is not in dispute that the latter effectively reflects the technical content of D3.

Using the wording of claim 1 of the patent in suit, this document discloses (see Figs. 1 and 2) a disposable absorbent article comprising a liquid pervious first top sheet (1), a liquid impervious back sheet (2) at least partially peripherally joined to said first topsheet, a fecal material storage element (fiber aggregate layer 4, see page 9, second paragraph) intermediate said first topsheet and said backsheet, said fecal material storage element having two major faces, a first major face oriented towards said first topsheet and a second major face oriented towards said backsheet.

D3 further discloses that the topsheet has apertures, each having an area of 7 to 50 mm^2 and an array pitch of 6 to 20 mm, with a total hole ratio of 15 to 70% of the entire front surface area, whereby soft stools can easily permeate through the holes and do not flow backward (see page 8).

The Opposition Division considered that these structural characteristics of the topsheet would inevitably result in a trans-topsheet capacity greater than 0.2 grams/6.45 square centimeters (page 7, first paragraph, of the decision under appeal). However, as explained above, the value of the trans-topsheet capacity cannot be inferred from the structure of the topsheet only, since it also depends on the structure of the underlying layers.

In respect of the fiber aggregate layer (corresponding to the fecal material storage element) which is capable of holding soft stools (D3, page 9, second paragraph), the Opposition Division merely considered that it is an appropriate layer for the desired purpose (page 7, penultimate paragraph).

However, as in the case of D1, nothing can be inferred from the disclosure of D3 in respect of what happens with the test fluid held by the fiber aggregate layer when the weight is removed in the corresponding step of the test for determining the trans-topsheet capacity.

Therefore, since it cannot be clearly and unambiguously derived from the written disclosure of D3 that the absorbent article disclosed therein meets the claimed requirement of a trans-topsheet capacity greater than

0.2 grams/6.45 square centimeter, the subject-matter of claim 1 must be regarded as novel over D3.

5. *Burden of proof*

5.1 In accordance with the established case law, in opposition proceedings the burden of proving that the objections raised under Article 100 EPC have been substantiated lies with the opponent (see e.g. T 219/83, OJ 1986, 211). According to the principle laid down in T 585/92 (OJ 1996, 129), once the Opposition Division has decided to revoke the patent, the burden is shifted to the proprietor of the patent to demonstrate on appeal that the reasons for revoking the patent were not justified. In the present case the Opposition Division decided to revoke the patent, but the reasons for revoking the patent are found to be wrong as regards the merits, as explained above. Therefore, the burden of proving that the subject-matter of claim 1 can be directly and unambiguously derived from D1 or D3 still remains with the opponent (respondent).

5.2 Further according to the established case law, particular subject-matter can be regarded as having been disclosed by a specific information source only if it can be directly and unambiguously inferred from that source (see e.g. T 378/94, point 3.1.1 of the reasons). In the present case, the appellant has submitted arguments which throw reasonable doubts on whether the claimed subject-matter is directly and unambiguously derivable from D1 and D3 and the respondent has not submitted any evidence that could remove such doubts. In particular, the respondent has not submitted any results of experimental tests for determining the

trans-topsheet capacities of absorbent articles disclosed in D1 or D3.

5.3 In this respect, it is noted that the test referred in the patent in suit does not present particular technical difficulties either with respect to the equipment used or with respect to the steps that must be performed. Therefore, there were no reasons that could have prevented the respondent from carrying out such experimental tests, at the latest after having being informed with the summons to oral proceedings of the provisional opinion of the Board that discussion would be necessary concerning whether the characterizing feature of claim 1 could be directly and unambiguously derived from the disclosure of the prior art documents.

5.4 Therefore, there are no reasons to shift the burden of proof onto the patentee (appellant) to prove that the claimed subject-matter is novel over the disclosure of D1 or D3.

6. Having regard to the fact that the Opposition Division explicitly chose not to deal with documents other than D1 or D3 because the subject-matter of claim 1 was considered to lack novelty over two documents (see page 8 of the decision under appeal, first paragraph), and that it might become necessary to consider the remaining ground of opposition concerning lack of inventive step, and also in order not to deprive the parties of their right to a second instance, the Board considers it appropriate to remit the case to the Opposition Division under Article 111(1) EPC for

further prosecution in relation to the issues of novelty and 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 for further prosecution.

The Registrar: The Chairman:

G. Nachtigall P. Alting van Geusau