DECISION
of 7 June 2002

Case Number: T 0215/00 - 3.2.6
Application Number: 92308588.0
Publication Number: 0589102
IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:
Sanitary napkin having shaping means

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponent:
McNeil-PPC, Inc.
Paul Hartmann Aktiengesellschaft

Headword:
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Relevant legal provisions:
EPC Art. 52(1), 54(1), 56, 100(a), 100(b)

Keyword:
"Clarity of claim 1 - yes"
"Novelty - yes"
"Inventive step - yes"

Decisions cited:
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Catchword:
-
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DEcision
of the Technical Board of Appeal 3.2.6
of 7 June 2002

Appellant: McNeil-PPC, Inc.
(Opponent)
Grandview Road
Skillman, NJ 08558 (US)

Representative: Fisher, Adrian John
CARMAELS & RANSFORD
43 Bloomsbury Square
London WC1 2RA (GB)

Respondent: THE PROCTER & GAMBLE COMPANY
(Proprietor of the patent)
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)

Further party: Paul Hartmann Aktiengesellschaft
(Opponent 02)
Paul-Hartmann-Straße
D-89522 Heidenheim (DE)

Representative: Dreiss, Fuhlendorf, Steimle & Becker
Patentanwälte
Postfach 10 37 62
D-70032 Stuttgart (DE)

Decision under appeal: Interlocutory decision of the Opposition Division of the European Patent Office posted 22 December 1999 concerning maintenance of European patent No. 0 589 102 in amended form.

Composition of the Board:
Chairman: P. Alting van Geusau
Members: G. C. Kadner
Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 589 102 in respect of European patent application No. 92 308 588.0 filed on 21 September 1992 was published on 5 February 1997.

II. Two notices of opposition were filed on 5 November 1997 on the grounds of Article 100(a) EPC. The Appellant (Opponent I) further opposed the patent on the grounds of Article 100(b) EPC.

III. By decision announced during oral proceedings on 18 October 1999 and posted on 22 December 1999 the Opposition Division maintained European patent 0 589 102 in amended form. Claim 1 reads as follows:

"Sanitary napkin comprising a liquid pervious topsheet (3), a liquid impervious backsheet (7), and an absorbent core (5) comprised between the topsheet and the backsheet, the absorbent core having a garment facing surface (37), a body facing surface (35), a longitudinal center line (13) and two longitudinal sides (9, 11) generally parallel to the longitudinal center line (13), the absorbent core comprising shaping means for raising a central part (15) of the core's body facing surface upon compression of the core transverse to the longitudinal sides, said shaping means comprise two axes of flexibility (40, 41) of the core, one axis of flexibility extending on each side of the longitudinal center line (13) and generally parallel thereto, the stiffness of the core being reduced along each axis of flexibility, each axis of
flexibility forming an axis of inflexion of the core's body facing side upon compression of the core transverse to the core's longitudinal sides, said core (5) comprising an absorption layer (24, 25, 29) and a fluid handling layer (31) located between the absorption layer and the topsheet, characterized in that the shaping means comprise a pair of bond lines (51, 52), one bond line extending on either side of the longitudinal center line (13) near the axes of flexibility (40, 41), generally parallel thereto, or coincident with the axes of flexibility, the absorption layer (24, 25, 29) and the fluid handling layer (31) being bonded along the bond lines (51, 52) by an adhesive."

The Opposition Division was of the opinion that the patent as amended according to the second auxiliary request met the requirements of Articles 100(b) and (c) EPC as well as the criteria of novelty and inventive step (Article 100(a) EPC) when compared with the prior art documents relied upon by the Opponents:

D1: DE-A-40 04 729
D2: US-A-4 795 455
D5: WO-A-93/01 782

IV. On 22 February 2000 the Appellant filed a notice of appeal against the decision of the Opposition Division together with the statement of grounds of appeal. The appeal fee was paid on the same date.
V. Oral proceedings were held on 7 June 2002.

The Appellant requested that the decision under appeal be set aside and that the European patent 0 589 102 be revoked.

The Respondent requested that the appeal be dismissed and that the patent be maintained as amended.

Opponent II who is party as of right had submitted that it would not be present at the oral proceedings.

VI. In support of its request the Appellant essentially relied upon the following submissions:

Claim 1 as maintained by the Opposition Division did not exclude bonding by an adhesive along other areas anywhere in addition to the score lines. In view of claim 5, according to which the bond lines by an adhesive could have a width of 2 to 16 mm, the scope of claim 1 included napkins having a greater area covered by adhesive. Moreover, since according to claim 3 the distance of the score lines from the longitudinal center line could be between 23% to 70% of the central width of the body, and taking into account the general extension of the sanitary napkin, the position of the score lines could lie virtually anywhere. Therefore, when interpreted by the teachings of claims 3 and 5, the further feature "near the axis" of claim 1 could not distinguish the subject-matter claimed from the sanitary napkin disclosed in D4.

Starting from a sanitary napkin as disclosed in D1 the remaining objective problem to be solved consisted in the improvement of the integrity of the napkin. The
other effects mentioned in the patent specification were already realised by the prior art, particularly the property of the sanitary napkin in that its central portion would rise under lateral compression. Aiming at an improvement of integrity the skilled person would immediately apply the teaching of D4 in that the absorbent core was formed by joining an absorbent layer and a fluid handling layer by lines of adhesive in the sanitary napkin known from D1 thus arriving at the sanitary napkin according to claim 1 without the involvement of inventive step.

Furthermore, since the prior art according to D4 disclosed the application of adhesive in the form of lines which according to general knowledge always would be formed in the longitudinal direction of the production of the article, and claim 5 of the patent in suit included the application of up to 8 bond lines in longitudinal direction, in view of the extension of such sanitary napkins the glue lines of D4 would necessarily coincide with the arrangement of the bond lines as claimed "near" the axis of flexibility. Therefore this subject-matter falling within the scope of claim 1 was at least obvious by the combination of D1 with D4.

VII. The submissions of the Respondent are summarized as follows:

The objective problem underlying the patent in suit was not only the improvement of integrity but also included the improvement of deformation and recovery of the sanitary napkin. According to the proposed solution applying the lines of an adhesive parallel and near the score lines would result in controlled deformation of
the sanitary napkin and would also help to withstand lateral forces in an improved manner.

The lines of adhesive disclosed in D4 were mentioned in addition to spray-gluing and spots of adhesive, all of them being intended for bonding extended areas together, and any indication towards the functional effect of the bond lines or the purpose realised in the patent in suit was missing. Neither D1 or D4 nor the combination of their teachings could lead the skilled person to the functionally cohering properties of providing shaping means consisting of axis of flexibility combined with adhesive bond lines. In view of that teaching the skilled person would be enabled clearly to understand the meaning of "near" used in claim 1 which was supported by the description and the examples of the invention.

Reasons for the Decision

1. The appeal is admissible.

2. Clarity of claim 1

During oral proceedings objections under Article 100(b) EPC were no longer raised. In accordance with the Opposition Division's decision the Board is satisfied that the teaching of claim 1 can be carried out by a skilled person without burden or undue difficulties. In particular, claim 1 indicates clearly the meaning of "shaping means" comprising an axis of flexibility and adhesive bond lines and indicates how these means support controlled deformation of the absorbent core during use. The skilled person reading claim 1 is well
aware that this controlled deformation by the combination of the axis of flexibility together with the adhesive bond lines works only if the bond lines are arranged "near" the axis of flexibility within the meaning of "adjacent" as also shown in figures 4 and 6 of the patent. If the distance between these two means was too far, controlled deformation would not happen.

3. **Novelty**

The novelty of the sanitary napkin according to claim 1 as maintained by the Opposition Division was not contested. The Board is convinced that none of the prior art documents discloses all the features of claim 1.

4. **Inventive Step**

4.1 The closest prior art is represented by D1 which document discloses a sanitary napkin having the features of the pre-characterising portion of claim 1. The Board agrees with the opinion of the parties that, since D1 does not explicitly disclose a core comprising an absorption layer and a fluid handling layer located between the absorption layer and the topsheet, such a construction would be interpreted by the skilled person reading D1 to be included in the disclosure of that document. According to the description of D1 the fluid pervious topsheet can consist of a non-woven or a perforated plastic film, and can be combined with additional materials (column 6, lines 35 to 40).

4.2 Starting from such a known construction the objectives underlying the patent in suit are to provide a sanitary napkin conforming closely to the body of the wearer.../...
during use and being comfortable, in which undesirable bunching during use is reduced, which comprises shaping means of relatively simple nature, giving a well-defined deformation of the absorbent core during use, and which relaxes to a generally flattened state when pressure exerted by the user's thighs on the sanitary napkin is reduced (see column 1, lines 26 to 35, 39 to 42 of the patent specification).

These technical problems are solved by the sanitary napkin having the features of claim 1.

4.3 According to the Appellant's argumentation the scope of claim 1, particularly by the non-limiting nature of the expression "near" was so broad that its subject-matter was at least obvious by the combination of the teachings of D1 with those of D4.

D4 discloses a sanitary napkin having shaping means for raising a central portion of the absorbent core towards the body of the wearer under lateral compression. These shaping means consist of an axis of flexibility extending on each side of the longitudinal center line 33 of the absorbent core 3 and generally parallel thereto and are formed by compression lines 10, 11 reducing the stiffness of the core along this axis of flexibility. Even presuming that the absorbent core may comprise further layers in addition to the absorbent material (column 6, lines 41 to 46), no explicit disclosure of a fluid handling layer is present in that prior art document. The compression lines can be formed using a tool made of steel under pressure (column 9, line 66 to column 10, line 8). Since neither a fluid handling layer nor an adhesive bond line is mentioned or hinted at in D1, that prior art product does not
give any indication towards adopting these measures within the teaching of claim 1 of the patent in suit.

4.4 The construction of the sanitary napkin disclosed in D4 is similar to that of claim 1 in respect to its several layers having different functions. Particularly when comparing figure 2 of D1 with figure 3 of the patent this coherence is evident. The absorbent core 34 may be attached to adjacent members by any means well known in the art, such as by spray-gluing or lines or spots of adhesive (column 5, lines 45 to 50).

However, D1 is completely silent about any property of the sanitary napkin concerning deformation during use. Therefore no reason is present which would cause the skilled person to draw the teachings of D4 into consideration when looking for a solution to the problem of controlled deformation of the sanitary napkin under lateral pressure. Even if the skilled person would try to combine the teachings of D4 with those of D1 this would result in the application of an adhesive between the absorbent core and an adjacent layer over its whole area. No indication is given which would lead to applying an adhesive only in distinct areas of the napkin such as defined in claim 1 to lie near the axis of flexibility and generally parallel thereto because such selected areas are not present in the construction of D4.

Consequently, since the sanitary napkin according to claim 1 could not be arrived at in an obvious manner either via one of the prior art documents or via a combination of their teachings, it meets the requirement of inventive step (Article 56 EPC).
5. Summarising, for the above reasons the Board reaches the conclusion that the subject-matter of claim 1 complies with the requirements of patentability according to Article 52(1) EPC. The same conclusion applies to the subject-matter of claims 2 to 11 which cover particular embodiments of the sanitary napkin according to claim 1. Therefore the patent can be maintained in the form as amended during the oral proceedings before the Opposition Division held on 18 October 1999.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Sauter P. Alting van Geusau