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**Datasheet for the decision
of 17 March 2009**

Case Number: T 1661/07 - 3.2.06

Application Number: 99930073.4

Publication Number: 1093350

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:
Absorbent structure

Patentee:
SCA Hygiene Products AB

Opponent:
The Procter & Gamble Company

Headword:
-

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step - yes"

Decisions cited:
-

Catchword:
-



Case Number: T 1661/07 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 17 March 2009

Appellant: SCA Hygiene Products AB
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Respondent: The Procter & Gamble Company
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 8 August 2007
revoking European patent No. 1093350 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Alting Van Geusau
Members: G. de Crignis
K. Garnett

Summary of Facts and Submissions

- I. European patent No. 1 093 350 granted on application No. 99930073.4, was revoked by the opposition division by decision announced during the oral proceedings on 3 July 2007 and posted on 8 August 2007.
- II. The decision of the opposition division was based on the finding that the subject-matter of claim 1 of the main request was not novel over the disclosure in D1 US-A-4 027 672 and that the subject-matter of claim 1 of the auxiliary request did not involve an inventive step with regard to the disclosure in D1.
- III. With its letter dated 1 October 2007 the appellant (patent proprietor) filed an appeal against the decision of the opposition division and on the same day paid the appeal fee. With its letter of 7 December 2007 the statement of grounds of appeal was filed, together with a main request and four auxiliary requests.
- IV. In a communication in preparation for the oral proceedings pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal dated 18 September 2008, the Board indicated that it concurred with the findings of the opposition division in that the subject-matter of claim 1 was not considered to involve an inventive step over the disclosure in D1. Furthermore, doubts were raised with regard to the compliance of the subject-matter claimed in claim 1 of the auxiliary requests with the requirements of Article 123(2) EPC.

V. Oral proceedings were held before the Board on 17 March 2009, during which the appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request filed during the oral proceedings.

The respondent requested the dismissal of the appeal.

Claim 1 according to the main request reads:

"Method for making an absorbent structure in an absorbent article such as a diaper, incontinence guard, sanitary napkin, wound dressing, bed protection and the like, said absorbent structure having a longitudinal, a transverse and a thickness direction, wherein areas of different densities as seen in at least the transverse direction are created in the absorbent structure, the method comprises placing layers (5') of a web-shaped absorption material in superposed relationship to each other and compressing the absorbent structure (4) comprised of said layers to a thickness which is the same over the width of the structure, characterized in folding the web-shaped absorption material (5) in such a way that superposed layers (5') are formed, said layers having different widths as seen in the transverse direction of the article, so that the structure in a middle portion (9) will comprise more layers than in the longitudinal edge portions (11), and compressing the structure to an even thickness at which it will be given a higher density in the middle portion than in the edge portions."

VI. In support of its request, the appellant argued essentially as follows:

The subject-matter of claim 1 was limited to a method comprising folding a web-shaped absorption material to form superposed layers and arriving after compression at an absorbent structure with a thickness which is the same over the width of the structure and having a middle portion with a higher density than the edge portions.

D1 referred to a compression step after the superposition of two distinct layers. Accordingly, no folding step was necessary. Folding the absorptive material in the claimed way did not represent an obvious alternative to superposition of the layers.

The only document cited which disclosed a suitable folding of the absorption material was D7. However, D7 disclosed that intimate contact of the folded layers should be avoided. Accordingly, the disclosure of D7 was not compatible with the disclosure of D1. The claimed method thus involved an inventive step.

VII. The respondent argued essentially as follows:

In order to carry out the teaching of D1 in the sense of arriving at different densities in an absorbent structure, there were only two ways possible of how to position the layers one above the other: either by the positioning of separate layers or by the appropriate folding of one layer.

The method shown in Figures 5/5a/5b of D1 used two separate layers. D7 showed that by suitably folding an absorbent web, an alternative was available for arriving at an appropriate configuration of the precursor web. No specific technique or knowledge was necessary to apply such an alternative. Accordingly, the application of such technique was obvious.

Reasons for the Decision

1. The appeal is admissible.
2. *Inventive step*
 - 2.1 The embodiment disclosed in relation to Figures 5/5a/5b of D1 represents the closest prior art. According to this embodiment, two distinct layers of absorbent material are superposed on one another to form a precursor article which is then compressed to a thickness which is the same over the width of the structure. The upper layer is disclosed as having a plurality of openings extending through this layer. The compression of the two superposed absorbent layers ensures that a combination of densified and undensified regions is obtained which produces the desired cooperation in the fluid management of the absorbent structure (see D1, column 5, lines 19 to 22).
 - 2.2 Accordingly, this embodiment of D1 discloses with regard to the method of claim 1 of the patent in suit all features of the preamble. With regard to the characterizing portion of claim 1 of the patent in suit,

- this embodiment also discloses the compression of the two absorbent layers to an even thickness.
- 2.3 Starting from this embodiment, the particular manner of folding specified in claim 1 forms the distinguishing feature.
- 2.4 The problem to be solved according to the patent in suit is to provide an absorbent structure in an absorbent article in which it is possible in a simple way to create areas of different densities in the xy-direction of the structure (paragraph [0007]).
- 2.5 This problem is solved by folding a web-shaped absorption material in the claimed way and subsequently compressing it.
- 2.6 In general, folding might represent an obvious alternative to superposition of distinct layers. However, folding as claimed does not refer to folding in general but to folding in such a way as to obtain a higher density in the middle portion and lower densities at the side portions. At least two folds and three layers disposed in a specific arrangement are necessary for the achievement of this goal. Accordingly, the folds have to be carried out such that the claimed density gradient will be obtained.
- 2.7 The respondent argued that D7 showed exactly the claimed folding, that such a technique was available and thus represented a rational way of handling such material and an alternative to the method disclosed in D1.

- 2.8 However, the disclosure of D7 is not at all related to manufacturing of absorbent structures having areas of different densities and therefore the question arises whether there are other reasons why the skilled person would have adopted the folding shown in D7.
- 2.9 The absorbent structure of D7 consists of an absorbent web folded in zig-zag manner, the multiple plies being arranged such that the bottom layer is widest and each successive layer which is positioned above the bottom layer is successively narrower to provide a stepped configuration. The reason for this particular manner of folding is a desired directionality and a concomitant increase in useful capacity without the need for a plurality of elements of varying composition (see column 1, lines 55 to 59).
- 2.10 When starting from the embodiment shown in Figures 5/5a/5b of D1 it will be immediately clear that in view of the different aspects of the layers used in this embodiment (layers without holes and layers with holes), folding of a single layer would neither lead to a comparable structure nor to the properties essential to this embodiment. There is thus no objective reason why the skilled person would apply folding of a tissue in accordance with D7.
- 2.11 Also considering the embodiment of D1 disclosed in relation to Figures 2 and 2a in which side portions are disclosed with a lower density than some of the middle portions, the folding disclosed in D7 is not suitable for achieving the specific arrangement of this embodiment and therefore the skilled person would have

no reason to substitute the specific layers of this embodiment by a folded layer.

2.12 Moreover D7 lacks any suggestion for compressing the folded arrangement. On the contrary, the stepped non-compressed construction disclosed in D7 is considered essential for the fluid distribution as described in detail in column 4, lines 42 to 60.

2.13 Hence, the claimed subject-matter is not arrived at in an obvious manner when considering the combined disclosure of D1 and that of D7. The requirement of Article 56 EPC is thus fulfilled in respect of the prior art relied upon by the opponent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Opposition Division with the order to maintain the patent on the basis of:
 - (a) Claims 1 and 2 according to the main request filed during the oral proceedings;

 - (b) Pages 2 and 3 of the amended description filed during the oral proceedings;

 - (c) Figures 1 to 5 as granted.

The Registrar

The Chairman

M. Patin

P. Alting van Geusau