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Datasheet for the decision of 28 September 2017

Case Number: T 1165/14 - 3.2.06

Application Number: 04800275.2

Publication Number: 1809222

IPC: A61F13/15, A61F13/42, A61F13/511

Language of the proceedings: EN

Title of invention:
ABSORBING ARTICLE COMPRISING AN ABSORBING STRUCTURE COMPRISING A DEFORMATION LAYER

Patent Proprietor:
SCA Hygiene Products AB

Opponent:
Kimberly-Clark Worldwide, Inc.

Headword:

Relevant legal provisions:
EPC Art. 54(2), 56, 100(a)

Keyword:
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
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Case Number: T 1165/14 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 28 September 2017

Appellant: (Opponent)	Kimberly-Clark Worldwide, Inc. 2300 Winchester Road Neenah WI 54956 (US)
Representative:	Davies, Christopher Robert Dehns St Bride's House 10 Salisbury Square London EC4Y 8JD (GB)
Respondent: (Patent Proprietor)	SCA Hygiene Products AB 405 03 Göteborg (SE)
Representative:	Zacco Sweden AB P.O. Box 5581 114 85 Stockholm (SE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 17 March 2014 rejecting the opposition filed against European patent No. 1809222 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	M. Harrison
Members:	P. Cipriano
	M.-B. Tardo-Dino

Summary of Facts and Submissions

I. An appeal was filed by the appellant (opponent) against the decision of the opposition division rejecting the opposition to European patent No. 1 809 222. The appellant requested that the decision be set aside and the patent be revoked.

II. In its letter of response, the respondent (patent proprietor) requested that the appeal be dismissed and the patent maintained as granted, in the alternative that it be maintained according to one of auxiliary requests 1 to 6 filed during opposition proceedings.

III. The Board issued a summons to oral proceedings together with a communication containing its provisional opinion, in which it indicated *inter alia* that the subject-matter of claim 1 of the main request seemed to be new and inventive.

IV. With letter of 26 July 2017 the respondent filed auxiliary requests 1 to 6 to replace previous auxiliary requests 1 to 6 on file.

V. With letter of 7 September 2017 the appellant withdrew its request for oral proceedings and stated that it would not be represented at the aforementioned proceedings.

VI. Oral Proceedings were held before the Board on 28 September 2017 in the absence of the appellant as previously announced, during which the respondent withdrew auxiliary requests 1 to 6.

VII. The final requests of the parties were as follows:

The appellant requested in writing that the decision under appeal be set aside and European patent No. 1 809 222 be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed.

VIII. The following documents were referred to by the parties:
D1: WO 2004/087028 A1 and its corresponding European family member D1a:EP 1 614 408 A1 (in English)
D2: US 2004/0127874

All the paragraph references given in this decision concerning D1/D1a are taken from D1a

IX. Claim 1 of the patent as granted reads as follows:
"1. An absorbing structure (9) comprising at least one layer, which layer comprises deformable fibers which are deformed and shrink when they become wet, characterized in that
the aforementioned layer is a deformation layer (302,402,502) and comprises at least one distinct admission passage (306, 906, 506, 606), which admission passage (306,406,506,606) is deformed and dilated when it becomes wet."

X. The appellant's arguments may be summarized as follows:

Novelty

The subject-matter of claim 1 lacked novelty over at least the embodiment of Figures 41-43 as well as the embodiments of Figures 36 to 40 and 47 of D2, which disclosed all the features of claim 1, respectively. All of these embodiments comprised a deformation layer

including a distinct admission passage, which admission passage (306,406,506,606) was deformed and dilated when it became wet, in the same way as defined in claim 1. Just after the position shown in figure 42, a gap would appear between the horizontally extending edges of two absorbent bodies 20 that could be seen as a dilating admission passage. In the embodiments of Figures 36 to 40 and 47, several distinct passages were formed in the spaces between the absorbent members and between these members and the edges of the absorbent body 20. The layer may be defined by multiple absorbents 25 as this was not excluded by the wording of claim 1 which also covered the embodiment of Figures 3a-3d of the patent.

The subject-matter of claim 1 also lacked novelty over the arrangement disclosed in paragraphs [0118] and [0122] and Figures 22 and 27 of D1. Figure 22 and paragraph [0118] disclosed a liquid impermeable sheet of the type defined in paragraph [0057] that shrinks by 50% or more when being wet. Paragraph [0122], which provided a modification to the embodiment of paragraph [0118], disclosed that a plurality of liquid impermeable ranges may be provided at a plurality of locations as disclosed in Figure 27. The ranges shrank to form passages between said ranges that would dilate as claimed.

Inventive Step

The subject-matter of claim 1 lacked inventive step over the combination of D1 or D2 when taken together with the knowledge of the skilled person.
Starting from the embodiment of Figures 41 to 43 of D2 as the closest prior art, these documents described an hygienic article providing the same effect and solution to the same problem of enabling a more rapid

acquisition into an absorbent article. The skilled person would realize that distinct admission passages according to claim 1 would inevitably have the same effect and would apply such passages to the article of D2 without the exercise of an inventive step.

Starting from D1, there would be no inventive step in the skilled person disposing a plurality of flat absorption layers with the ability to shrink such as the one defined in paragraph [0118] or paragraph [0057] and arranging them according to paragraph [0122] by reference to Figure 27 so as to form passages.

XI. The respondent's arguments may be summarised as follows:

Novelty

None of the embodiments of D2 disclosed a passage, or at least a passage before the layer became wet. In the embodiment of Figures 41 to 43, a passage was presented only after the wetting and shrinking of at least some of the absorbent bodies occurred. Moreover, the multi-arrangement of absorbent bodies 20 did not form a deformation layer in the sense of the invention, because the absorbent bodies were staggered and not arranged in parallel like in the patent. Regarding the embodiments of Figures 36-40 and 47 of D2, each of them comprised only a deformable layer made of absorbents 25, where only the outer boundary was changed by the shortening of the absorbents 25 and without any dilation of a passage between the members, thus not resulting in an admission passage that is deformed and dilated when the layer became wet.

D1 also did not disclose any passage in the embodiment of Figure 22 when read together with paragraph [0118] in conjunction with paragraph [0122]. The embodiment of paragraph [0118] disclosed a single shrinkable absorption control layer 40 that just became smaller through the reduction of the size of its outer boundary, which did not correspond to an outer passage. Paragraph [0122] and Figure 27 suggested modification to the embodiment of paragraph [0118] that did not correspond to the formation of passages as claimed. Paragraph [0122] and corresponding Figure 27 showed an embodiment with three liquid impermeable ranges 70 that did not shrink and thus did not form a passage that dilated and deformed when said layers became wet. Paragraph [0122] provided no basis to conclude that a plurality of absorption control layers 40 comprised a distinct admission passage, since the plurality of layers referred to in said paragraph could be arranged in many configurations that did not form passages, for example as shown in Figure 23.

Inventive Step

The absorbing structure of claim 1 differed from each of D1 and D2 in that an admission passage was provided in the deformation layer. The problem to be solved was to provide a faster admission of liquid and to provide the possibility of admitting faeces, thus avoiding skin irritation.

Starting from D2, the skilled person would not find in D2 any incitement to form a distinct admission passage as defined in claim 1, as the shrinking in the layers defined in D2 only resulted in a change in the outer boundary and did not form passages before being wetted, as required by claim 1.

Also, starting from D1 would not result in a different outcome, because in D1 the deformation layer did not comprise any passages and merely disclosed a reduction of the outer boundary to expose unused absorbing material from the absorbent 25 below.

Reasons for the Decision

Preliminary procedural remark

The oral proceedings were held in the absence of the appellant in compliance with Rule 115(2) EPC and, as provided by Article 15 RPBA the debate relied on the appellant's written case.

1. Article 100(a) and 54 EPC

The subject-matter of claim 1 is novel with respect to D1 and D2.

1.1 *With respect to D2*

1.1.1 The appellant argued that each of the embodiments of Figures 41-43 as well as the embodiments of Figures 36 to 40 and 47 of D2 disclosed all the features of claim 1.

1.1.2 The embodiment illustrated in Figures 41-43 and described in paragraphs [0249] and [0250] of D2 discloses an absorbing structure with a plurality of shrinkable absorption bodies 20 that form a deformation layer. However, the aforementioned deformation layer

does not comprise at least one distinct admission passage, which admission passage is deformed and dilated when it becomes wet. The arrangement of two opposing absorption bodies for body fluids 20 in Figures 41 to 43 forms a deformation layer in the sense of the claim, since the deformation layer according to the invention has to be understood as allowing the possibility of the layer being formed by more than one body. As argued by the appellant, claim 1 does not require that the bodies forming the layer be parallel. Paragraph [0019] of the patent states this verbatim ("The deformation layers do not need to be parallel in certain embodiments"). The Board finds that at least two bodies arranged initially in a staggered way form a deformation layer in the sense of the invention. Paragraphs [0019] and [0020] of the patent support this interpretation, by disclosing several variations to the deformation layer such as suggesting that several patterns are possible and that the deformation layer may comprise additional layers such as a supporting layer.

1.1.3 It is also not excluded by claim 1 that the passage may be in the transverse direction instead of the longitudinal direction. In the state disclosed in Figure 43 of D2, the two upper opposing absorption bodies form a layer comprising a passage between their opposing transverse edges.

1.1.4 The Board interprets the feature of the claim "admission passage being deformed and dilated when it becomes wet" as implying that said passage is already present before the layer ("it") is wetted in the first place. The pronoun "it" refers to the layer as such, as it would not make sense to refer to wetting a passage which by definition comprises no matter to be wetted.

For the passage to be deformed and dilated, it must exist in the first place. This is not the case of the embodiment of Figures 41 to 43, where the deformation layer does not comprise a passage originally and the passage is created only after the deformation layer was wetted enough for a gap to appear between the at least two first consecutive bodies. Thus, contrary to the argument of the appellant, the process for the formation and deformation of passages described in the embodiment of Figures 41-43 is not identical to the one of claim 1.

1.1.5 Regarding the embodiments of Figures 36-40 and 47, they disclose a deformation layer made up of absorbent members 25, which shrink when they become wetted. This shrinking causes the boundary contour of said group of absorbent members forming the layer to shrink in the longitudinal direction of the members 25. There is no disclosure in D2 of the shrinking of the absorbent members in any other direction, such as the distance between adjacent absorbent members. The longitudinal shrinking of the deformation layer and consequent reduction of the boundary contour of the layer is not interpreted as being the deformation and dilation of a (distinct) passage which already exists.

1.1.6 In its communication prior to the oral proceedings, the Board also stated that no passage for liquid seemed to be present. No response to this was received from the appellant. Thus, the Board has no reason to conclude otherwise and confirms its preliminary opinion herewith for the reasons stated above.

1.2 *With respect to D1*

1.2.1 The appellant argued also that the embodiment of Fig. 22 and paragraph [0118] with the alternative mentioned in paragraph [0122] and Fig. 27 of D1 disclosed all the features of claim 1.

1.2.2 Fig. 22 and paragraph [0118] disclose a flat absorption layer 40 which can be seen as an absorbing structure comprising a deformation layer that shrinks when being wet. As can be seen in Fig. 22 and as disclosed in paragraph [0115], the flat absorption layer covers the absorbent 25 but does not form any identifiable passage at all. As shown by the discontinued line in Fig. 22, the outer boundary of the flat absorption layer 40 shrinks uncovering a bigger part of the surface of the absorbent 25.

1.2.3 The Board also finds that the alternative defined in paragraph [0122] is too unspecific and does not give the skilled person enough information for it to be established whether a passage is formed or not. This paragraph together with Fig. 27 disclose an alternative where a plurality of liquid impermeable ranges 70 are provided in a flat absorption layer 40 spaced apart from each other and form a gap between them. This gap however is not a passage according to claim 1 as nowhere it is stated that said impermeable ranges shrink to provide a passage that deforms and dilates when said ranges are wetted.

1.2.4 As the appellant pointed out, paragraph [0122] also states that in the case of a plurality of liquid impermeable ranges being provided at a plurality of locations also a plurality of absorption control layers may be provided at a plurality of locations. D1, however, does not provide the skilled person with clear unambiguous information as to how said absorption

control layers should be arranged, at least not in a way which necessarily forms distinct admission passages as claimed. Fig. 27 also does not help the skilled person further as it does not disclose an embodiment with multiple absorption control layers 40, only with multiple liquid impermeable ranges 70.

1.2.5 Even if paragraph [0122] would disclose a specific arrangement of absorption control layers 40 forming gaps between them, the alternatives in paragraph [0122] are "in addition" to the embodiment referred in paragraph [0121] and not the embodiment of paragraph [0118]. The embodiment described in paragraph [0121] discloses water soluble layers that dissolve instead of shrinking when being wet, thus the feature from claim 1 "layer comprising deformable fibres which are deformed and shrink when they become wet" would also not be disclosed in this embodiment.

1.2.6 Thus, none of the embodiments cited in D1 by the appellant is prejudicial to the novelty of the subject-matter of claim 1.

1.2.7 The Board thus concludes the subject-matter of claim 1 is new over both D1 and D2 and that the opposition ground under Article 100(a) EPC in combination with Article 54 EPC does not prejudice maintenance of the patent.

2. Article 100(a) EPC and 56 EPC

2.1 The appellant further argued that the subject-matter of claim 1 lacked inventive step over the combination of D1 or D2 when taken together with the knowledge of the skilled person.

2.2 As explained *supra* under point 1.1.2, the embodiment disclosed in Figures 41 to 43 and paragraphs [0248] to [0250] of D2, which have been used as the closest prior art starting point by the appellant, differs from the subject-matter of claim 1 in that it does not disclose a deformation layer comprising at least one distinct admission passage, which admission passage is deformed and dilated when it becomes wet. In this embodiment of D2 the passage is only formed after the wetting of the layer has occurred, which delays the start of the fluid admission until after the passage has been formed. The differing feature thus provides an effect which is not present in D2 and the objective technical problem can thus be seen as being the provision of an arrangement for more immediate admission for fluid.

2.3 The appellant argued that the embodiment of D2 solves the same technical problem as the patent, which was to enable a more rapid acquisition into an absorbent article and to enable faeces to be handled. The Board however finds that the effect of providing a rapid acquisition is also present in claim 1 but is provided by the provision of a passage in general and not by the specific differing feature. The objective technical problem may then not be seen as to provide an alternative mechanism for fluid admission but instead to provide for more immediate admission of fluid, as stated above in point 2.2.

2.4 The objective technical problem also does not relate to the handling of faecal matter since the passage defined in the claim does not imply any special adaptation such as a minimum dimension that would render it suited to handle faecal matter (i.e. of a more solid consistency).

2.5 The solution defined by the subject-matter of claim 1 is not obvious for the skilled person. In order to adapt the absorbing structure of D2 so that it contains an admission passage, which admission passage is deformed and dilated when it becomes wet, and thus arrive at the subject-matter of claim 1, the skilled person would have to perform a number of modifications that are not evident for the skilled person. The construction of Figures 41 to 43 in D2 does not require a passage before wetting, since the absorption bodies 20 that constitute the deformation layer also serve the purpose of absorbing fluid. In the mechanism of D2, the absorption bodies should ideally cover the whole wetting zone Z and the passage is formed by the heavily wetted shrinking absorption body making way for a new dry body underneath. To create passages in the deformation layer of this embodiment (by for example, making slots in the absorption layers or making the layers shorter by creating a gap between consecutive layers) would seemingly hinder the absorption capability of such a modified absorption article, because lower absorption layers would start shrinking prematurely. The skilled person would not make such a modification to the absorption article defined in Figures 41 to 43 without the use of inventive skill.

2.6 Referring to D1, as explained *supra* in point 1.2.2, starting from the embodiment of paragraph [0118] and Fig. 22 as the closest prior art, the differing feature is that the deformation layer comprises at least one distinct admission passage, which admission passage is deformed and dilated when it becomes wet. Whilst D1 does not disclose a passage in control layer 40, because in the embodiment of Figure 22 and paragraph [0118] excretions are absorbed by the absorbents 25 through the area exposed outside the boundary of

control layer 40, it provides the same effect as the passage of claim 1, which is to allow rapid admission as is also implied in the patent in paragraphs 13, 36, 39 and 43 thereof.
The objective technical problem could then be seen as the provision of a different mechanism for the admission of excretions.

D1 does provide in paragraph [0118] a shrinking deformable layer but it does not give the skilled person any hint to create a distinct admission passage in the layer in order to solve the problem posed. The embodiment of paragraph [0118] presents a different solution, which is to always expose a fresh unused part of the absorbents to the incoming excretions through shrinkage.

2.7 Contrary to the appellant’s argument, paragraph [0057] does not teach the skilled person to use a shrinkable deformation layer comprising passages. Paragraph [0057] discloses that a shrinkage ratio and direction can be set for an absorbent control layer 40 but it refers to the embodiment of Figs. 5 and 6 of D1, which also does not disclose any distinct admission passage.
Also, the appellant's argument that the skilled person would understand that the teaching of paragraph [0122] was clearly applicable to the earlier embodiments, cannot be followed by the Board. As explained *supra* under points 1.2.3 to 1.2.5, paragraph [0122] and Fig. 27 do not disclose unambiguously the formation of distinct admission passages, such that the skilled person would not be able to use them as a basis for modifying a control layer 40 to create distinct admission passages on it.

2.8 The skilled person would therefore not arrive at the subject-matter of claim 1 starting from D1 without the exercise of an inventive step.

2.9 The Board concludes that the ground for opposition under Article 100(a) EPC in combination with Article 56 EPC does not prejudice maintenance of the patent.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. H. A. Patin M. Harrison

Decision electronically authenticated