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D E C I S I O N
of 7 March 2006

Case Number: T 0029/04 - 3.2.06

Application Number: 95915007.9

Publication Number: 0843540

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:

Sanitary napkin having an independently displaceable central core segment

Patentee:

THE PROCTER & GAMBLE COMPANY

Opponent:

SCA Hygiene Products AB

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 84, 83, 54(2), 54(3), 56

Keyword:

"Amendments (allowable)"

"Clarity (yes) - reference to description in claim"

"Sufficiency of disclosure (yes)"

"Novelty (yes)"

"Inventive step (yes)"

Decisions cited:

T 0651/91

Catchword:

-



Case Number: T 0029/04 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 7 March 2006

Appellant: SCA Hygiene Products AB
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted 3
November 2003 concerning maintenance of
European patent No. 0843540 in amended form.

Composition of the Board:

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

Summary of Facts and Submissions

I. The appeals are from the interlocutory decision of the Opposition Division posted on 3 November 2003 concerning the maintenance in amended form of European patent No. 0 843 540, granted in respect of European patent application No. 95 915 007.9.

In the decision under appeal the Opposition Division considered that claim 1 of the patent as granted lacked novelty over the disclosure of document

D1: US-A-4 490 147.

However, the subject-matter of claim 1 according to the patent proprietor's first auxiliary request was novel over the prior art represented by documents D1,

D4: WO-A-95/17150; and

D5: WO-A-93/21879.

Furthermore, the claimed absorbent article was not rendered obvious by the available prior art.

II. The patentee and the opponent each lodged an appeal, received at the EPO respectively on 23 and 30 December 2003, against this decision and paid the appeal fee on the respective dates. The statements setting out the grounds of appeal were received at the EPO on 5 March 2004.

III. Oral proceedings took place on 7 March 2006.

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

The appellant-patentee requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 12 and the amended description as filed during the oral proceedings, together with the Figures as granted.

IV. Claim 1 according to the appellant-patentee's request reads as follows:

"A disposable absorbent article (20) having a longitudinal centerline (29), a lateral centerline (31), and first and second longitudinally extending sides joining first and second laterally extending ends, the absorbent article comprising: a liquid pervious topsheet (40); a liquid impervious backsheet (50) joined to the topsheet (40); an absorbent core (60) disposed intermediate the topsheet and the backsheet, the absorbent core (60) having a longitudinal length and a lateral width, the absorbent core comprises a three piece construction which includes: a central core segment (62) extending along the longitudinal centerline (29) of the disposable absorbent article (20); a first longitudinally extending side core segment (64), the first side core segment (64) disposed intermediate the longitudinal centerline (29) of the disposable absorbent article (20) and the first longitudinally extending side of the disposable absorbent article (20); and a second longitudinally extending side core segment (66), the second side core segment (66) disposed intermediate the

longitudinal centerline (29) of the disposable absorbent article (20) and the second longitudinally extending side of the disposable absorbent article (20) each of the first and second side core segments (64, 66) is separate from the central core segment (62), as herein defined, and each of the first and second side core segments is separate from one another; and a lifting member (100) disposed intermediate the backsheet (50) and the central core segment (62) for providing Z-direction elastic displacement of the central core segment (62) relative to the first and second side core segments (64, 66), as herein defined."

- V. The submissions of the appellant-opponent in respect of this request can be summarized as follows:

The feature added to claim 1 according to which the first and second side core segments were separate from one another was not disclosed in the application as filed and therefore the amendments contravened Article 123(2) EPC. In the description of the patent in suit it was stated that the term "separate" had a specific meaning when referring to the feature of the first and second side core segments being "separate" from the central core segment. The same term was used in the context of the other feature according to which the first and second side core segments were separate from one another. It was not clear, contrary to Article 84 EPC, whether the same meaning applied for both features, or whether in the latter case the term "separate" should be given a broader meaning, which would e.g. encompass a horseshoe shaped absorbent element. The expression "Z-direction elastic displacement" in claim 1 was meaningless because the

description did not specify any value of the load applied nor the time of application required for testing the lifting member in order to determine whether it provided a Z-direction elastic displacement within the meaning of the patent in suit. In the description it was stated that, upon release of a load, the lifting member restored the sanitary napkin to have a Z-direction caliper which was at least about 70 percent of the initial caliper. However, it was not clear how to separate the contribution of the lifting member to the elastic recovery of the Z-direction caliper from that of other elements of the absorbent article. Therefore, the invention was not disclosed in a manner sufficiently clear and complete, contrary to Article 83 EPC.

The claimed absorbent article was not novel in the light of the disclosure of D1 and D4. D4 disclosed in Fig. 3 an absorbent article comprising a unitary absorbent core. This Figure showed that the core, in the configuration in which it was lifted-up by the lifting member, was divided into a central core segment and two side segments. Further according to the disclosure of D4, the side flaps could be made in accordance with the teaching of document

D11: US-A-4 589 876,

i.e. with absorbent layers being present in the flaps. These absorbent layers could be regarded as side core segments. Finally, D4 disclosed that additional absorbent material could be provided in the space between the backsheet and the absorbent core. Fig. 2 showed that, in the compressed configuration of the

absorbent article, the lifting member divided that space into two separate spaces. Accordingly, it was clear that the additional absorbent material could only be provided as two separate elements, which could also be regarded as separate side core segments.

D1 disclosed an absorbent article with an absorbent core comprising three separate core segments and an elongate pad of sponge material therebetween acting as a lifting member in the sense of the patent in suit. The sponge material was indeed elastic and thus provided a Z-direction elastic displacement of the central core segment. In any case, it was obvious to provide an absorbent article which would not collapse when nudged and would substantially recover its initial Z-direction caliper upon release of a compressive load.

VI. The appellant-patentee essentially argued as follows:

Claim 1 was amended to specifically reflect the feature that all core segments were separate from each other and thus were distinct components of the absorbent article. This amendment was clearly based upon the application as filed, which not only explicitly disclosed that the first and second side core segments were separate from the central core segment, but also, having regard to Fig. 5 and the passages of the description relating to the process of manufacturing the absorbent core, that the first and second side core segments were separate from one another.

It was clear for a skilled person that when testing the lifting member in order to determine whether it provided a Z-direction elastic displacement within the

meaning of the patent in suit, the values of the load applied and of the time of application should be in relation to the values which might be expected when the absorbent article was in use. Furthermore, since the lifting member displaced the central core segment independently of the side core segments, there was no difficulty for a skilled person to establish the contribution of the lifting member to the Z-caliper recovery of the absorbent article upon release of a compressive load.

The available prior art did not disclose an absorbent article with an absorbent core comprising three separate core segments and a lifting member for providing Z-direction elastic displacement of the central core segment relative to and independently of the side core segments. D1 disclosed the provision of an elongate pad of sponge material for allowing the absorbent article to grow and become softer upon absorption of fluids, thereby conforming itself to the shape and anatomy of the wearer. This concept was different from that underlying the patent in suit, according to which the lifting member acted to adapt the absorbent article to the anatomy of the wearer also when in a dry state, i.e. from the first moment it was worn.

Reasons for the Decision

1. The appeals are admissible.

2. *Article 123 EPC*

2.1 Claim 1 includes the combination of features of claims 1 and 2 as granted. In addition, it defines that the Z-direction displacement which is provided by the lifting member is "elastic" and that "each of the first and second side core segments is separate from one another".

2.2 Basis for the inclusion of the feature that the Z-displacement is elastic is the disclosure on page 6, line 28, taken together with the disclosure on page 2, line 33, of the application as filed.

The application as filed undisputedly discloses that each of the first and second side core segments is separate from the central core segment (see original claim 2; see also granted claim 2). The appellant-opponent contested however a clear and unambiguous disclosure of the side core segments being separate from one another.

Fig. 5 of the application as filed shows an exploded view of a sanitary napkin. The core segments 62, 64, 66, are shown as three apparently separated segments. The appellant-opponent submitted that, since the Figure did not show the structure beneath the core segments and since the side core segment 64 was partly hidden, it could not be excluded that there was some connection between the rear portions of the side core segments.

It is however a fact that no connection between the side core segments is recognizable in Fig. 5.

Further according to the disclosure in the application as filed, having regard to the passages relating to the process of manufacturing the absorbent article (see page 13, line 21 to page 15, line 13), the core segments are formed as separate elements (see in particular page 14, lines 14 to 16 and 37 to 40). In this respect, the appellant-opponent submitted that the application as filed did not disclose how the core segments were assembled into the absorbent product. Accordingly, it could not be excluded that, although manufactured separately, the side core segments were connected during assembly.

To the Board, the possibility of a connection between the side core segments as envisaged by the appellant-opponent is one which a skilled person would not consider as being part of the disclosure of the application as filed, having regard to its content as a whole. As a matter of fact, the disclosure in Fig. 5, in which no connection between the side core segments is recognizable, must be seen in combination with the disclosure relating to the manufacturing process of the absorbent core, in which the core segments are manufactured as separate elements. In the absence of any specific indications to the contrary, the skilled person could only infer from this disclosure that the core segments are also assembled in the absorbent article as separate elements. This conclusion is further corroborated by the disclosure in Fig. 3, which is a section view of the sanitary napkin shown in Fig. 5, and which clearly shows that there is no connection between the core segments at least in the sectional plane of the Figure, and by the disclosure in the introductory portion of the application as filed

(page 2, line 40 to page 3, line 5), according to which an object of the invention is to provide a sanitary napkin having separate core segments. In this latter disclosure, the term "separate" refers to segments in general without distinguishing between side core segments and central core segment. Accordingly, the skilled person could only derive from the application as filed, taken as a whole, that the side core segments are separate from one another.

Finally, claim 1 includes references to the description ("as herein defined") which do not introduce additional subject-matter.

2.3 Claims 2 to 12 correspond to granted claims 3 to 13.

The description is amended to be in conformity with the new claims, the reference in column 1 to W092/07537 is replaced by the reference to W092/07535 and the Figures are the same of those of the patent as granted.

2.4 Accordingly, the amendments do not give rise to objections under Article 123(2) and (3) EPC.

3. *Clarity - Article 84 EPC*

3.1 In the present case, the references to the description ("as herein defined") in claim 1 are absolutely necessary to make clear that the expressions "Z-direction elastic displacement" and "each of the first and second side core segments is separate from the central core segment" must be given a specific meaning corresponding to the definitions recited in the description.

3.1.1 In paragraph [0026] of the description it is stated that "by Z-direction elastic displacement of the central core segment 62 relative to the backsheet 50 and the side core segments 64,66, it is meant that the central core segment 62 can be displaced relative to the backsheet 50 and the side core segments 64,66 in the Z-direction from a first, extended configuration, wherein the sanitary napkin 20 has a Z-direction caliper Z1 shown in FIGS. 3 and 4, to a second compressed configuration having a caliper Z2 shown in FIG. 2 (such as by the compressive Z-direction load 200), and that the lifting member 100 will restore the sanitary napkin 20 to have a Z-direction caliper which is at least about 70 percent of the Z-direction caliper Z1 upon release of the compressive loading, when the sanitary napkin is dry and has not been loaded with body exudates". From this it follows in particular that the claim refers to a Z-direction elastic displacement of the absorbent article in a dry state, and that the lifting member is responsible for at least about 70% of the recovery of the Z-direction caliper upon release of a load.

The appellant-opponent submitted that since the description (see the above-mentioned paragraph [0026]) did not specify the value and time of application of the compressive load upon release of which the lifting member restored the sanitary napkin to have a Z-direction caliper which was at least about 70 percent of the initial caliper, the expression "Z-direction elastic displacement" in claim 1 was meaningless: by choosing very small loads and very short application times, any material commonly used in sanitary napkins

could be regarded as being elastic in the sense of the patent in suit. In the Board's view, however, the skilled reader would understand that the compressive load and the application time required for determining whether the lifting member is capable of providing Z-direction elastic displacement must have values which are significant when compared to the forces which can be expected to be applied in use onto the absorbent article.

3.1.2 As regards the feature that each of the first and second side core segments is separate from the central core segment, the description specifies (see par. [0031]) that *"the central core segment is separate from the first and second core segments 64 and 66 so that the lifting member 100 can displace the central core segment 62 independently of the side core segments 64 and 66. By the term "separate" it is meant that the central core segment 62 is not an extension of, nor directly joined or directly connected to either of the first and second core side segments 64 and 66 by adhesive or other fastening means. Of course, the central core segment 62 can be separate from the first and second side core segments 64 and 66 and yet be indirectly joined to the side core segments 64 and 66 by one or more other elements of the sanitary napkin 20"*. From this it follows in particular that the central core segment is lifted independently from the side core segments. This feature is fully consistent with the embodiment shown in Figs. 2 and 3.

3.2 The appellant-opponent further submitted that since the term "separate" was given a specific meaning in the context of the feature concerning the first and second

side segments being separate from the central core segment, it was not clear whether this same meaning applied in the context of the feature concerning the first and second core segments being separate from one another, or whether in this case the term "separate" should be given its normal meaning.

In the Board's view, in the absence of any other specific indication in the claim, the term "separate" can only be given its literal meaning. Accordingly, in the context of claim 1, the first and second core side segments must be seen as two, distinct detached components of the absorbent core.

3.3 It follows that claim 1 clearly defines the matter for which protection is sought. Accordingly, the amendments do not give rise to objections under Article 84 EPC.

4. *Sufficiency of disclosure - Article 83 EPC*

The appellant-opponent submitted that it was not clear how to determine the contribution of the lifting member to Z-direction caliper recovery, because it could not be separated from the contribution of other components of the absorbent article. As a consequence, it was not clear how to reproduce the claimed absorbent article in which the lifting member was responsible for at least about 70% of the recovery of the Z-direction caliper upon release of a load.

However, considering that claim 1 requires the central core segment to be lifted independently from the side core segments, as explained above (point 3.1.2), it is clear that the Z-direction caliper recovery upon

release of a compressive load is essentially the sum of the elastic recoveries of the lifting member and of the central core segment. Since a skilled person would have no difficulties in determining the elastic characteristics of these two components, he could easily separate the contribution of the lifting member from that of the central core segment.

Therefore, no objections arise under Article 83 EPC.

5. *Novelty*

5.1 Using the wording of claim 1 of the patent in suit, document D1 discloses (see Figs. 1 to 5) a disposable absorbent article having a longitudinal centerline, a lateral centerline, and first and second longitudinally extending sides joining first and second laterally extending ends, the absorbent article comprising: a liquid pervious topsheet (22); a liquid impervious backsheet (23) joined to the topsheet; an absorbent core (24, 25, 26) disposed intermediate the topsheet and the backsheet, the absorbent core having a longitudinal length and a lateral width, the absorbent core comprises a three piece construction which includes: a central core segment (26) extending along the longitudinal centerline of the disposable absorbent article; a first longitudinally extending side core segment (24), the first side core segment disposed intermediate the longitudinal centerline of the disposable absorbent article and the first longitudinally extending side of the disposable absorbent article; and a second longitudinally extending side core segment (25), the second side core segment disposed intermediate the longitudinal

centerline of the disposable absorbent article and the second longitudinally extending side of the disposable absorbent article, and each of the first and second side core segments (24, 25) is separate from one another.

Since the elongate pad (27) of sponge material which is present in the absorbent article of D1 (see column 4, lines 3 to 20) has a certain elasticity and thus contributes to the recovery of the Z-direction caliper upon release of a compressive load, it acts as a lifting member in a broad sense. However, it is not a lifting member in the sense of the patent in suit, because it cannot be inferred from the disclosure of D1 that the lifting member is responsible for at least about 70% of the recovery of the Z-direction caliper of the absorbent article when in a dry state. D1 in fact suggests that, in a dry state, the elongate pad (27) contributes only to a minor extent to the elastic recovery: since in the dry state the sponge material of D1 is compressed (see column 4, line 14), it can be reasonably assumed that it is substantially more rigid than the core segments (absorbent pads 24, 25 and 26), whereby it is the elasticity of the core segments, and not that of the elongate pad (27), which essentially provides the elastic recovery. Moreover, the first and second side core segments (24, 25) are not separate from the central core segment in the sense of the patent in suit: upon release of a compressive load, the central core segment is not lifted independently from the side core segments but is lifted by these to a substantial extent since they are located immediately beneath, and thus act as supporting elements of the central core segment.

5.2 The published PCT application D4, claiming priorities of 20 December 1993 and 8 April 1994, and published on 29 June 1995, is prior art under Article 54(3) EPC in respect of the patent in suit.

D4 does not disclose a three-piece construction absorbent core with a central core segment and first and second side core segments being separate from one another. According to the teaching of D4 (see Fig. 3), the absorbent article comprises a topsheet (22), an absorbent core (26) and a lifting member (100) disposed intermediate the backsheet (24) and the absorbent core (26) for providing Z-direction elastic displacement of the absorbent core (see page 7, lines 11 to 20). The absorbent core (26) is a unitary absorbent core which does not consist of separate, i.e. distinct and detached (see above points 3.1.2 and 3.2), core segments.

D4 discloses (page 9, first paragraph) that the backsheet (24), which preferably peripherally circumscribes the topsheet (22) and the absorbent core (26), may comprise flaps which may be made in accordance with the teachings of US-A-4 589 876 (D11). Since D11 teaches the presence of a flap absorbent core only as a preferred feature (see column 2, lines 17 to 20; column 10, lines 33 to 35; and claim 1 where this feature is not present), the reference to D11 in D4 must be regarded as a generic teaching, which leaves the skilled person with the choice between two alternatives, i.e. to provide flaps either with or without absorbent cores. Thus, even when considering the reference to D11, D4 does not clearly and

unambiguously disclose the provision of absorbent cores in the flaps (see in this respect T 651/91).

D4 further discloses (page 6, lines 13, 14) that an absorbent material such as airfelt can partially or completely fill the space between the backsheet (24) and the absorbent core (26). Such absorbent material provides an additional absorbent core segment which is separate from the (main) absorbent core (26). There is however no disclosure in D4 that such absorbent material is provided as two separate segments, each respectively filling the space on the right and left side of the lifting member (100) shown in Figs. 2 and 3. The appellant-opponent argued that if absorbent material were provided in the space between the backsheet (24) and the absorbent core (26), then it could only be provided as two separate core segments, since in the compressed configuration of the absorbent article shown in Fig. 2 the lifting member (100) would act as a barrier preventing any connection between the spaces at its right and left sides. This view cannot be shared by the Board. Fig. 2 in fact refers to the embodiment in which the space (136) between the backsheet (24) and the absorbent core (26) is void (see page 6, lines 7 to 12). There is no specific disclosure in D4 of the compressed configuration of the absorbent article with the space (136) filled with absorbent material. It is quite plausible that when this space (136) is filled with absorbent material, then the latter also extends through the lifting member. In such case, the lifting member would be slightly raised as compared to the position shown in Fig. 2 in order to accommodate absorbent material between its pleats (115).

5.3 D5 discloses (see in particular Figs. 13 to 18) a disposable absorbent article comprising: a liquid pervious topsheet (25); a liquid impervious backsheet (16) joined to the topsheet; and an absorbent core comprising a central core segment (additional absorbent material 48, see page 13, third paragraph) and a lower core segment (absorbent core 34) disposed intermediate the topsheet and the backsheet. Although a central core segment is present, there are no separate first and second core segments since the absorbent core (34) is unitary. Nor is a lifting element (which either corresponds to the element 60, see page 12, last paragraph, or a foam insert piece, see page 44, last paragraph) identifiable in D4, which is responsible for at least about 70% of the recovery of the Z-direction caliper of the absorbent article upon release of a compressive load.

As regards the reference to D11 (page 43, 2nd paragraph) in respect of the flaps, analogous considerations as for D4 apply: the reference to D11 in D5 must be regarded as a generic teaching, which leaves the skilled person with the choice between two alternatives.

5.4 Since the remaining available prior art does not disclose an absorbent article having all the features of claim 1, its subject-matter is novel (Article 52(1), 54(2) and (3) EPC).

6. *Inventive step*

6.1 The Board shares the view of the appellant-opponent that document D1 represents the closest prior art for the subject-matter of claim 1 of the patent in suit. D1 indeed discloses a similar absorbent article having a three-piece core construction and relates (see column 2, lines 33 to 38), as does the patent in suit (see par. [0010]), to the general problem of providing an absorbent article which is capable of being shaped to the anatomy of the wearer during use.

6.2 The distinguishing features (see point 5.1 above), in particular the provision of a lifting member which lifts the central core segment independently of the side core segments upon release of a compressive load, allows a portion of a topsheet overlying the central core segment to maintain contact with the wearer's body (see par. [0009] and [0028] of the patent in suit) at least when the absorbent article is in a dry state (see point 3.1.1 above). Accordingly, the objective technical problem solved can be seen as being the provision of an absorbent article which, at least when in a dry state, maintains contact with the wearer's body.

6.3 As stated above (point 5.1), the elongate pad (27) of sponge material which is present in the absorbent article of D1 can be regarded as acting in a broad sense as a lifting member, not however in the sense of the patent in suit, because it is not responsible for at least about 70% of the recovery of the Z-direction caliper of the absorbent article when in dry state and because it does not act to lift the central core

segment independently of the side core segments. Moreover, since the sponge material can be assumed to be substantially rigid in the dry state as compared to the absorbent core (see point 5.1 above), D1 does not suggest that such lifting member (elongate pad 27) might contribute to the function of maintaining contact of a portion of the topsheet with the wearer's body when the absorbent article is in a dry state. In fact, according to the teaching of D1, the absorbent article of D1 is shaped to the anatomy of the wearer during use due to the fact that the sponge (27) becomes extremely soft upon swelling (see column 4, lines 24 to 40 and column 6, lines 20 to 24), i.e. after it has absorbed a substantial quantity of liquid. Accordingly, D1 does not suggest the solution according to claim 1 in respect of the above-mentioned problem.

The remaining available prior art (from which D4 is excluded pursuant to Article 56 EPC, second sentence) does not suggest the provision, in the absorbent article of D1, of a lifting member for lifting the central core segment independently of the side core segments upon release of a compressive load. Accordingly, the subject-matter of claim 1 involves an inventive step (Articles 52(1), 56 EPC).

7. Dependent claims 2 to 12 define further embodiments of the absorbent article of claim 1 and likewise involve an inventive step.

8. Therefore the patent specification amended in accordance with the appellant-patentee's request forms a suitable basis for maintenance of the patent in amended form.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is referred to the first instance with the order to maintain the patent on the basis of the following documents:

claims: 1 to 12 as filed during the oral proceedings of 7 March 2006;

description: columns 1 to 29 as filed during the oral proceedings of 7 March 2006;

drawings: Figures 1 to 13 as granted.

The Registrar:

The Chairman:

M. Cremona

P. Alting Van Geusau