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D E C I S I O N
of 26 February 1997

Case Number: T 0287/94 - 3.2.2

Application Number: 86112377.6

Publication Number: 0215408

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:
Form-fitting self-adjusting disposable garment

Patentee:
Kimberly-Clark Corporation

Opponent:
The Procter & Gamble Company

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty (yes)"
"Inventive step (yes) - after amendment"

Decisions cited:
T 0689/90

Catchword:
-



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Boards of Appeal

Chambres de recours

Case Number: T 0287/94 - 3.2.2

D E C I S I O N
of the Technical Board of Appeal 3.2.2
of 26 February 1997

Appellant:
(Proprietor of the patent) Kimberly-Clark Corporation
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Decision under appeal: Interlocutory decision of the opposition division
of the European Patent Office, posted on
2 February 1994 concerning the maintenance of
European patent No. 0 215 408 in amended form.

Composition of the Board:

Chairman: H. J. Seidenschwarz
Members: D. Valle
J. C. M. De Preter

Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal on 30 March 1994 against the interlocutory decision of the opposition division to maintain the patent in amended form according to the auxiliary request filed during the oral proceedings held on 1 December 1993. The appeal fee was paid on 30 March 1994. The statement setting out the grounds of appeal was received on 3 June 1994.

II. Notice of opposition was filed under Article 100(a) EPC against European patent No. 215 408 as a whole, on the grounds that the subject-matter of the patent claims was not new and did not involve an inventive step.

The opposition division held that the grounds for opposition mentioned in Article 100 EPC did not prejudice the maintenance of the patent as amended, having regard to the following documents:

- (1) US-A-4 205 679
- (2) US-A-4 166 464
- (3) US-A-3 882 871
- (4) US-A-4 036 233
- (5) US-A-2 141 105
- (6) US-A-4 338 939
- (7) US-A-4 522 874

III. Together with the statement of grounds, the appellant filed a new set of 34 claims as main request. Following a communication of the board, it filed on 24 January 1997 a new main request and seven auxiliary requests each containing a set of 34 claims.

During the oral proceedings, held on 26 February 1997, the appellant filed a modified main request.

IV. Independent claims 1 and 3 of the main request read as follows:

Claim 1: "Form-fitting self-adjusting disposable garment comprising:

- an outer cover (20) having front (66) and back (64) waist sections and a crotch section (68) therebetween, wherein uppermost boundaries of said front and back waist sections (66, 64) or of extension members (80, 82) of said waist sections define a waist opening (12, 87), and wherein outermost portions of said crotch section (68) define first and second leg openings (14, 81) when said garment (10) is placed around a wearer,
- absorbent means (38) disposed within said outer cover (20) for absorbing and containing body fluids and other exudates, and
- full-length fastening means (16, 70, 72, 74, 75) providing a first essentially full-length closure (77, 79) from a first site (83, 85) of said waist opening to said first leg opening (14, 81) and a second essentially full-length closure (77, 79) from a second site (83, 85) of said waist opening to said second leg opening (14, 81),
- outermost boundaries of said front and back waist sections (66, 64) or outermost boundaries of said pair of front waist extension members (80, 82) and outermost boundaries of back waist section (64) comprise first and second junctions (77, 79) when said diaper is placed on a wearer and wherein uppermost points of said first and second junctions comprise said first and second sites (83, 85) respectively,
- said full-length fastening means (16, 70, 72, 74, 76) comprise a first pair (74, 76) of fastening members and a second pair (70, 72) of fastening members characterised in that said first and second pair of fastening members are full-length fastening members whereby said first pair

(74, 76) of fastening members are attached to said front waist section (66) or that front waist extension members (80, 82) of said outer cover (20) with one of said first pair (74, 76) of full-length fastening members attached at each of said junctions (77, 79) and said second pair (70, 72) of fastening members are attached to said back waist section (64) of said cover (20) with one of said second pair (70, 72) of full-length fastening members attached at each of said junctions (77, 79), said full-length fastening members are fixed-point fastening members, and said outer cover (20) is resiliently stretchable more than about 20% and preferably less than 200% in at least one direction (67, 69)."

Claim 3: "Form-fitting self-adjusting disposable garment comprising:

- an outer cover (20) having front (66) and back (64) waist sections and a crotch section (68) therebetween, wherein uppermost boundaries of said front and back waist sections (66, 64) or of extension members (80, 82) of said waist sections define a waist opening (12, 87), and wherein outermost portions of said crotch section (68) define first and second leg openings (14, 81) when said garment (10) is placed around a wearer;
- absorbent means (38) disposed within said outer cover (20) for absorbing and containing body fluids and other exudates, said absorbent means (38) comprise an absorbent insert structure (22) which is superposed on a body-facing surface of said outer cover (20) and attachment means (26, 28) for attaching and integrating said insert (22) onto said outer cover (20),
- full-length fastening means (16, 70, 72, 74, 76) providing a first essentially full-length closure (77, 79) from a first site (82, 85) of said waist opening to said first leg opening (14, 81) and a second essentially full-length closure (77, 79) from a second

site (83, 85) of said waist opening to said second leg opening (14, 81),

- outermost boundaries of said front and back waist sections (66, 64) or outermost boundaries of said pair of front waist extension members (80, 82) and outermost boundaries of back waist section (64) comprise first and second junctions (77, 79) when said diaper is placed on a wearer and wherein uppermost points of said first and second junctions comprise said first and second sites (83, 85) respectively,
- said full-length fastening means (16, 70, 72, 74, 76) comprise a first pair (74, 76) of fastening members and a second pair (70, 72) of fastening members characterised in that
 - (i) said first pair (74, 76) of fastening members are attached to said front waist section (66) or that front waist extension members (80, 82) of said outer cover (20) with one of said first pair (74, 76) of fastening members attached at each of said junctions (77, 79) and said second pair (70, 72) of fastening members are attached to said back waist section (64) of said cover (20) with one of said second pair (70, 72) of fastening members attached at each of said junctions (77, 79),
 - (ii) said outer cover (20) is resiliently stretchable more than about 20% and preferably less than 200% in at least one direction (67, 69), whereby said front (66) and back (64) waist sections of said outer cover (20) are resiliently stretchable in at least one direction, and
 - (iii) said attachment means (26, 28) being provided such as to allow substantially unrestricted functional stretchability of the outer cover."

V. The appellant held that claim 1 corresponded to claim 1 considered as allowable by the decision of the opposition division and was therefore not open to objection under Article 100 EPC. The subject-matter of claim 3, on the other hand, corresponded to the

subject-matter of claim 3 of the main request in the interlocutory decision, which was considered to be not inventive. The appellant argued that the features of the characterising part of this claim 3 were neither disclosed nor suggested by any of the documents cited during the opposition proceedings. In particular, document (1) did not disclose fastening members attached only to the outer cover of the disposable garment according to feature (i) of the characterising part of claim 3 but rather attachment means attached both to the outer and inner cover, where the inner cover was coextensive with the outer cover.

Furthermore, even if it was true that document (1) disclosed a stretchable material for the outer cover, it did not further disclose a resilient stretchability of said material within the range claimed by feature (ii) of the characterising part of said claim. On this subject, it was not justified to incorporate in the teaching of document (1) the teaching of document (4), where said range had been disclosed, on the sole ground that the description in document (1) cited document (4). For this purpose it was necessary for all the conditions set out in decision T 689/90 (OJ EPO, 1993, 616) to be fulfilled, which was not the case here. Finally, the attachment means in document (1) were represented by the gluing of the absorbent pad to the outer cover, which did not allow unrestricted functional stretchability of the outer cover, contrary to feature (iii) of the characterising part of claim 3.

Document (2) mentioned the possibility of attaching the absorbent pad of a diaper to only a limited region of an elastic backing. However, there were no mention at all of full-length fastening means.

Document (3) referred to a diaper set for exchangeably holding absorbing pads in a pocket between an outer cover and a net. The outer cover was neither elastically stretchable, nor did it have full-length fastening means.

Document (5) described a supporting garment for absorbent pads which was not disposable. The garment was provided with zippers as a pair of fastening means. On the absorbent pads and the holder, interlocking means were provided to to facilitate insertion and removal of the pads and to prevent relative movement between the pads and the holder (see page 2, lines 20 to 29). Document (5) did not disclose the form-fitting, self-adjustable disposable garment of claim 3.

VI. The respondent (opponent) contested this view by referring to the prior art known from documents (1), (2), (3) and (5). Feature (i) of the characterising part of claim 3 was indeed disclosed by document (1). What was claimed was that the fastening means were attached to the outer cover. This was known by the embodiment according to figure 22c of document (1). Certainly, the cited embodiment disclosed further fastening means attached to the inner cover. However in feature (i) it was not said that such further fastening means were excluded by the invention. Also, feature (ii) was known from document (1), which stated that a material such as that disclosed in document (4) could be used, ie a material having a resiliency range as claimed. This meant that a material having the claimed resiliency features was known in combination before the priority date of the patent. Finally, feature (iii) of the characterising part of claim 3 concerning the unrestrictable stretchability of the outer cover was also known from document (1), in particular from the embodiment according to figure 20. The attachment means in document (1) were represented by the weldings

corresponding to the elastic waist bands. They fulfilled, inter alia, the same function as the attachment means of the invention which were represented by flaps of the outer cover corresponding to the waist, namely the function of hindering unrestricted displacement of the absorbent pad in one direction. These attachment means allowed unrestricted functional stretchability of the outer cover.

Since document (2) disclosed attachment means which allowed unrestricted stretchability of the outer cover, since document (3) disclosed an outer cover with insert together with fastening means attached to the outer cover, and since document (5) disclosed full-length fastening means attached to the outer cover, an insert in the outer cover, and that the outer cover was elastic, the combination of the teachings of documents (1) and (2) or, alternatively, of document (1) and (3), or (1) and (5) could lead to the invention in an obvious way.

VII. The appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of claims 1 to 34 according to the main request filed during the oral proceedings or on the basis of one of the seven auxiliary requests filed by letter of 24 January 1997.

The respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments*

Claims 1 and 3 according to the main request differ from the version taken as the basis for the interlocutory decision, essentially by recasting the two-part form of these claims in view of the prior art according to document (1). In accordance with Article 84 EPC, the last word of feature (iii) of claim 3 ("latter") was replaced by the words: "outer cover". The description has been adapted to comply with the present claims 1 and 3. Points 2 and 16 of the decision under appeal state that the requirements of Article 123(2) and (3) EPC have been met. The Board agrees with this statement.

3. *Claim 1*

Claim 1 corresponds to the claim 1 considered allowable in the decision under appeal (see points 2, 3 and 6). The board sees no grounds to depart from the decision of the opposition division.

4. *Claim 3*

- 4.1 Novelty

- 4.1.2 Document (1) discloses a form-fitting self-adjusting disposable garment comprising
 - an inner cover (401), an outer cover (402) having front and back waist sections and a crotch section therebetween, wherein the uppermost boundaries of said front and back waist sections define a waist opening,

and wherein the outermost portions of said crotch section define first and second leg openings when said garment is placed around a wearer (see figures 19 and 21);

- absorbent means (412) disposed between said covers for absorbing and containing body fluids and other exudates, said absorbent means consisting of an absorbent insert structure which is superposed in a body-facing surface of said outer cover, and attachment means for attaching and integrating said absorbent means onto said outer cover (see figure 20);

- full-length fastening means (411, 427c) providing a first essentially full-length closure from a first site of said waist opening to said first leg opening and a second essentially full-length closure from a second site of said waist opening to said second leg opening (see figures 20, 20a);

- the outermost boundaries of said front and back waist sections comprise first and second junctions when said diaper is placed on a wearer and wherein the uppermost points of said first and second junctions comprise said first and second sites respectively, and

- the full-length fastening means comprise a first pair of fastening members and a second pair of fastening members when Velcro is used as releasable mechanical fastener (see column 15, lines 41 to 45).

According to claims 19 and 21 and the description (see column 14, lines 45 to 58), the cover adapted to be disposed outwardly can be an elastic thermoplastic film of the type described in document (4). This film has a recovery of at least 90% when elongated to within 10% of its yield point due to the stretch (Young's) modulus of the material used for the film.

With regard to the above, the appellant contended that the teaching of document (4) could be incorporated in the teaching of document (1), and that when deciding

novelty of a claim it was a general rule that separate prior art documents should not be combined. The appellants cited decision T 689/90, dealing with amendments to the claims based on features disclosed only in a cross-referenced document identified in the description, and argued that the same rules applied when deciding on the novelty of a claim. To support its view, it referred to the commentary of Singer, "The European Patent Convention", revised English edition (1995) by Raph Lunzer (page 725) concerning the inclusion of the content of the cited prior art.

However, the cited passage in this commentary says that in dealing with amendments in general, the same rules apply as under novelty. The passage refers back to Article 54.09 A, which concerns issues of novelty similar to those arising in the present case: in particular, the question when combinations with other documents are allowed. In the cited passage, it is said that two documents can be combined in assessing novelty when the skilled person would read them together.

The skilled person reading the above-cited disclosure in document (1) realises that the plastic film known from document (4) which is suitable for a disposable diaper can also be used for a disposable garment according to document (1), since it is emphasised in this document that such a plastic film is well suited for the purpose of the disposable garment. Therefore the feature concerning the resilient stretchability of the outer cover is also known from document (1).

The respondent argued that feature (i) was also known from document (1), where the fastening members were represented by the elements designated with W" in figure 22c, which fastening members could be Velcro fasteners attached to the outer cover (402).

However, figure 22c refers to an embodiment in which the elements W" concern weld lines to hold together the outer and inner covers. Furthermore the suggestion that Velcro fasteners be used instead of sealing the seams according to figure 22c gives no indication of how these Velcro fasteners should be positioned for replacing the weld lines.

The respondent further argued that the attachment means for attaching and integrating the absorbent insert structure according to feature (iii) of the present claim 3 were represented in document (1), in particular by figure 20, by the sealings corresponding to the elastic waist bands. These performed, inter alia, the function of the flaps according to the patent in suit, namely the function of retaining the absorbent pad in place by limiting its movement in one direction, and allowed unrestricted stretchability of the outer cover.

The function of the sealings of the waist band is however to keep in position the elastic band and not to retain the insert pad. As can be seen from figures 20 and 21, compared with the invention, the sealings are not necessarily designed to be in a close spatial relationship with the pad in order to prevent its displacement. Accordingly, they do not represent an embodiment of the attachment means according to the invention.

Document (1) does indeed disclose attachment means for the insert structure which - when one or both covers are formed by plastic films - are however represented by melt adhesive distributed on the surface of the outer cover (see column 10, lines 43 to 53). Therefore these attachment means do not allow unrestricted stretchability of the outer cover as claimed in feature (iii), since they cause the outer cover to be made integral with the pad.

Consequently, the subject-matter of claim 3 is distinguished from the garment according to document (1) by the fact that it has only one outer cover and by the features that:

(i) the first pair (74, 76) of fastening members is attached to the front waist section (66) or that front waist extension members (80, 82) of the outer cover (20) with one of the first pair (74, 76) of fastening members attached at each of the junctions (77, 79) and the second pair (70, 72) of fastening members are attached to the back waist section (64) of the cover (20) with one of the second pair (70, 72) of fastening members attached at each of the junctions (77, 79), and

(iii) the attachment means (26, 28) are provided such as to allow substantially unrestricted functional stretchability of the outer cover.

4.1.3 Document (2) discloses an absorbent dressing having an outer cover (13) and an inner cover (36) with front, back and crotch sections (see figure 10). Absorbent means (12) are provided within said outer cover and attachment means (44) (see figures 13, 14) for attaching and integrating said absorbent means onto said outer cover are also provided, whereby said outer cover is resiliently stretchable more than about 20% (see column 1, lines 35 to 42). According to the embodiment of figure 13, the upper corners of both covers form flaps (45) to facilitate securing said dressing in use (see column 8, lines 44 to 47).

Document (2), however, does not disclose full-length fastening means; in particular, the document says nothing about feature (i) of the characterising part of claim 3.

Document (3) discloses a diaper consisting of an outer cover having front, back and crotch sections, a net

fabric (50) and absorbent means disposed in a pocket within said outer cover and the net fabric. Fastening means in the form of stretchable connecting bands (22, 23) associated with buckles (20, 21) are attached to the outer cover for providing a closure when the diaper is worn by a user as shown in figure 6. Document (3) does not comprise means for attaching the absorbent means to the outer cover and, therefore, it does not disclose feature (iii) of claim 3. Furthermore it does not disclose the resiliency range of the outer cover according to feature (ii) of the characterising part of claim 3. Finally, it does not disclose fastening means which are full-length or fastening means which are disposed according to feature (i) of the characterising part of claim 3. The additional connection means disclosed by document (3) and identified by the reference numbers 16 to 19 in figures 4 and 5 are provided to support the back waist section to the corresponding front waist section and do not provide a closure within the meaning of the patent in suit.

Document (5) describes a supporting garment for absorbent pads which is not disposable. The garment is provided with zippers as a pair of fastening means and consists of only one cover with front, back and waist sections and absorbent means (20) disposed within said garment. The absorbent means are attached to the cover by means of bands or plain tapes or ribbons (27) (see page 2, right-hand column, lines 21 to 32). Full-length fastening means (14) are provided which are attached to the front and waist section of the cover. Document (5) does not disclose a resiliency range of the cover according to the feature (ii) of the characterising part of claim 3 or an unrestricted stretchability of this cover according to the features (iii) of the characterising part of claim 3.

Document (4) refers to a disposable diaper having a stretchable waistband. This stretchable waistband is obtained by adhering an impermeable backsheet to a bodyside topsheet in the area where they extend beyond the absorbent pad in a length wise direction. One of the sheets is stretchable, but the stretchability is severely inhibited when adhered to the non-stretchable layer. Fastening tabs are provided on the outside of the backsheet, which are not full-length.

Document (6) describes a reusable supporting garment similar to that described in document (5), so that the same considerations apply here as well.

Document (7) describes an absorbent article having a liquid-permeable internal layer and an absorbent intermediate layer directly engaging with the surface of an outer layer. There is no indication of any elasticity of this outer layer structure. The fastening members are full-length fastening members, but one of them is attached on the internal layer.

4.1.4 Consequently, the subject-matter of claim 3 has to be considered as novel (Article 54 EPC).

4.2 Inventive step

4.2.1 From the above it follows that the embodiment according to figures 18 to 22c of document (1) shows the prior art which comes closest to the subject-matter of claim 3. The known disposable garment has the drawback of being bulky and stiff due to its multi-layer arrangement, to the fact that the inner cover has the same size as the outer cover with the absorbent means therebetween, and to the presence of stretch elements between the two covers not allowing unrestricted stretchability of the outer cover. The bulk and stiffness prevents the garment from closely adapting to

the legs of the wearer and possibly allowing leaking of body fluids through gaps between legs and garment. These drawbacks cause discomfort to the wearer.

The problem to be solved is therefore to provide an attractively slim and trim, disposable garment which is anatomically form-fitting and self-adjusting (see patent specification, page 3, lines 24 to 26).

This problem is solved by features (i) and (iii) of claim 3. In particular, feature (i) concerning the disposition of fastening members attached only to the outer cover, contributes to provide a slim, trim garment, whereas the unrestricted stretchability according to feature (iii) contributes to the form-fitting and self-adjusting aspects by allowing unrestricted stretchability of the outer cover even by the presence of means for attaching the absorbent insert to the outer cover.

- 4.2.2 According to the teaching of document (1), the known garment has an inner and outer cover, full-length fastening members disposed between both covers, and absorbent means held in place between the two covers by friction or by hot melt adhesive.

In document (1) there is no indication which can lead the skilled person in the field to a garment not having an inner cover. Furthermore, using friction or hot melt adhesive in order to attach and integrate the absorbent means to either of both covers does not allow an unrestricted stretchability of the outer cover.

- 4.2.3 Since document (2) teaches using transversely extending flaps formed at the ends of an inner and outer cover which are sealed together (see column 7, lines 44 to

47; column 8, lines 44 to 47) the combination of this teaching with that of document (1) cannot lead to a garment having only one outer cover with full-length fastening means attached to it as specified in claim 3.

4.2.4 Document (3) cannot give the skilled person the idea of modifying the garment known from document (1) in order to obtain a garment according to claim 3, since the stretchable connecting bands associated with buckles attached to the outer cover cannot be compared with full-length fastening means within the meaning of claim 3. Moreover, nothing is said in that document about attachment means for attaching and integrating an absorbent means to the outer cover.

4.2.5 According to the teaching of document (5), disposable absorbent means are attached to a garment by elastic bands or plain tapes or ribbons across both ends of the absorbent means, which attachment means prevent appreciable relative movement between the absorbent means and the garment. From this reference it is not evident that the material of the garment should be resiliently stretchable. In view of the above, the teaching of document (5) does not suggest in combination with the teaching of document (1) a full-length fastening system on a disposable garment having a resiliently stretchable outer cover.

4.2.6 The teaching of documents (4), (6) and (7) - taken either alone or in combination with the teachings of the documents discussed in the foregoing paragraphs - could not lead the skilled person to a disposable garment according to claim 3 which provides a slim, trim garment for a person to wear.

- 4.3 For all those reasons, having regard to the state of the art, the subject-matter of claim 3 is not obvious and therefore involves an inventive step within the meaning of Article 56 EPC. As a consequence the claims depending on claim 3 can also stand.
5. Consequently, the patent is maintained as amended.

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 with the order to maintain the patent in the following form:

Claims 1 to 34 as filed during the oral proceedings;

Description: pages 2 and 3 filed during the oral proceedings;

pages 4 to 17 of the patent specification;

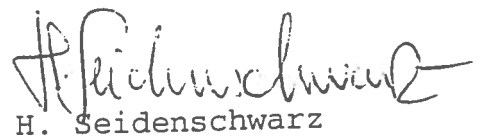
Drawings of the patent specification.

The Registrar:



S. Fabiani

The Chairman:



H. Seidenschwarz

