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# D E C I S I O N
## of 20 September 2005

**Case Number:** T 1161/03 - 3.2.06

**Application Number:** 96116588.3

**Publication Number:** 0836842

**IPC:** A61F 13/15

**Language of the proceedings:** EN

**Title of invention:**
Disposable non-woven cleaning articles

**Patentee:**
The Procter & Gamble Company

**Opponent:**
(I) Kimberly-Clark Worldwide Inc.
(II) Unilever PLC

**Headword:**
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**Relevant legal provisions:**
EPC Art. 123(2), 83, 54(2), 114(2), 111(1)

**Keyword:**
"Amendments - added subject-matter (main and first to third auxiliary request)"
"Sufficiency of disclosure (yes)"
"Novelty (no, fourth auxiliary request; yes, fifth auxiliary request)"
"Admissibility of fifth auxiliary request submitted during oral proceedings (yes)"
"Admissibility of late filed document (no)"
"Remittal (yes)"

**Decisions cited:**
T 1148/97

**Catchword:**
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**Case Number:** T 1161/03 - 3.2.06

# D E C I S I O N
**of the Technical Board of Appeal 3.2.06**
**of 20 September 2005**

**Appellant:** (Proprietor of the patent)
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**Decision under appeal:**
**Decision of the Opposition Division of the European Patent Office posted 15 September 2003 revoking European patent No. 0836842 pursuant to Article 102(1) EPC.**

**Composition of the Board:**

**Chairman:** P. Alting van Geusau
**Members:** G. Pricolo
J. van Moer

## Summary of Facts and Submissions

I. The appeal is from the decision of the Opposition Division posted on 15 September 2003, to revoke European patent No. 0 836 842, granted in respect of European patent application No. 96 116 588.3.

Claim 1 of the patent as granted reads as follows:

"1. Disposable non-woven cleaning article (10) with an elongated shape having a major axis (L) and a minor axis (C), and at least one web of entangled fibres (11), characterised in that said entangled fibres (11) are entangled in a direction parallel to said major axis (L), and said cleaning article (10) ranges in size from 30 millimetres to 200 millimetres in the direction of said major axis (L) and from 30 millimetres to 65 millimetres in the direction of said minor axis (C)".

II. In the decision under appeal the Opposition Division considered that the definition of claim 1 according to which the fibres were entangled in a direction parallel to the major axis of the cleaning article implied that only some fibres were oriented in that direction. Since the fibres of the web were randomly oriented, "*some of them were in a direction parallel to the major axis of the article and therefore the invention was disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.*" However, the subject-matter of claim 1 of the patent as granted and of claim 1 as amended according to the patentee's first auxiliary request was not novel over the disclosure of document

D1: WO-A-94 02674.

As regards the second auxiliary request, the Opposition Division held that, although the addition of the feature according to which the strength was highest in the direction of entanglement was allowable under Article 123(2) and (3) EPC, it introduced a lack of clarity, contrary to Article 84 EPC, because "*the direction of highest strength could not be considered as a parameter to define clearly and unequivocally the direction of entanglement of the fibres and consequently of the major axis of the cleaning article*".

III. The appellant (patentee) lodged an appeal, received at the EPO on 12 November 2003, against this decision and paid the appeal fee on the same date. With the statement setting out the grounds of appeal, received at the EPO on 26 January 2004, the appellant requested that the patent be maintained in accordance with the second auxiliary request rejected by the Opposition Division in the impugned decision or on the basis of newly filed first to fourth auxiliary sets of claims.

IV. With letter dated 11 June 2004, enclosing submissions in response to the grounds of appeal, the respondent I (opponent I) introduced the new document

D8: US-A-5 137 600;

which it regarded as relevant for the question of inventive step.

V. In a communication accompanying the summons to oral proceedings pursuant to Article 11(1) of the Rules of Procedure of the Boards of Appeal, the Board stated that it was to be discussed whether the introduction of the expression "so that the strength is highest in such a direction" in claim 1 of all pending requests was allowable under Article 123(2) EPC, that sufficiency of disclosure had to be discussed having regard to the presence in claim 1 of the expression that the "entangled fibres are entangled in a direction parallel to said major axis", and that the question of admissibility of D8 might arise if inventive step would be discussed.

VI. With letter dated 18 August 2005, the appellant filed a modified fourth auxiliary request replacing the previously filed fourth auxiliary request.

VII. Oral proceedings, at the end of which the decision of the Board was announced, took place on 20 September 2005.

The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claims in accordance with the main or first to fourth auxiliary requests filed during the written proceedings, or fifth auxiliary request filed during the oral proceedings.

The respondents I and II (opponents I and II) requested that the appeal be dismissed or, auxiliarily, that the case be remitted to the first instance if claim 1 of auxiliary request 5 is considered novel.

During oral proceedings the parties referred to the above-mentioned document D1 and further to the following documents:

D2: US-A-3 485 706;

D6: WO-A-94/04737.

VIII. Claim 1 of the main requests reads as follows:

"1. Disposable non-woven cleaning article (10) with an elongated shape having a major axis (L) and a minor axis (C), and at least one web of entangled fibres (11), characterised in that said entangled fibres (11) are entangled in a direction parallel to said major axis (L), so that the strength is highest in such direction, and said cleaning article (10) ranges in size from 30 millimetres to 200 millimetres in the direction of said major axis (L) and from 30 millimetres to 65 millimetres in the direction of said minor axis (C)".

The independent claim 1 of the first to third auxiliary requests also includes the wording of claim 1 of the main request according to which "said entangled fibres (11) are entangled in a direction parallel to said major axis (L), so that the strength is highest in such direction".

Claim 1 of the fourth auxiliary request reads as follows:

"1. Disposable non-woven cleaning article (10) with an elongated shape having a major axis (L) and a minor

axis (C), and at least one web of entangled fibres (11), characterised in that said entangled fibres (11) are entangled in a direction parallel to said major axis (L), and said cleaning article (10) ranges in size from 30 millimetres to 200 millimetres in the direction of said major axis (L) and from 30 millimetres to 65 millimetres in the direction of said minor axis (C), and wherein said entangled fibres (11) are hydroentangled".

Claim 1 of the fifth auxiliary request additionally defines (after the final word "hydroentangled" in claim 1 of the fourth auxiliary request):

", and said cleaning article (10) is suitable for facial cleaning".

IX. The arguments of the appellant can be summarised as follows:

The description of the application as filed disclosed, on the one hand, that the superior cleaning performance of the cleaning article was linked to the fibre entanglement orientation and, on the other hand, that the cleaning performance was a function of strength and the strength was highest in such a direction. Therefore, the application as filed clearly disclosed that the strength was highest in the direction of fibre entanglement.

Claim 1 of the fourth and fifth auxiliary requests specifically referred to a hydroentangled web, for which the direction of entanglement was clearly identifiable in the pattern of ridges and depressions

produced in the web by the action of the jet streams of water during the hydroentangling process. Patterns resulting from hydroentangling were shown in particular by document D2 which was cited in the patent in suit. Accordingly, the disclosure of the patent in suit was sufficient for a skilled person to reproduce the invention.

The patent in suit based on the recognition that a cleaning article with superior cleaning performance was obtained by cutting elongated cleaning articles from a hydroentangled web where the entanglement of the web occurred in parallel lines, in such a manner that the entanglement direction of the web in each article was parallel to the major axis of the article. D1 and D6 did not specify how articles where cut from the hydroentangled web. Furthermore, although D6 disclosed examples of cleaning articles having a size in accordance with the patent in suit, there was no clear and unambiguous disclosure of these specific articles being hydroentangled. In fact, D6 referred to hydroentangling only in a general manner as one of the possible methods for entangling a web. Finally, D6 related to nonwoven scouring articles, not to cleaning articles suitable for facial cleansing.

X. During oral proceedings the respondents made submissions in common. The relevant arguments of the respondents can be summarised as follows:

In the application as filed there was only basis for requiring the article to have highest strength in the direction of the major axis, not for this highest strength being associated with the entanglement of the

fibres. In fact, the direction of highest strength could be determined by factors other than the direction of entanglement, such as e.g. the nature and/or direction of the fibres. Therefore, claim 1 according to the main and first to third auxiliary requests was not allowable under Article 123(2) EPC.

The disclosure of the patent in suit was insufficient in respect of what was meant by direction of fibres entanglement. It left open whether this expression was intended to refer to the orientation of the fibres or rather to the manner in which the fibres were entangled.

Anyway, the subject-matter of claim 1 of the fourth auxiliary request was not novel over the disclosure of D1 and D6. According to D1, cleaning articles were obtained from a hydroentangled web having fibres entangled in all directions. Thus, irrespective of how the article was cut from the web, some entangled fibres would be in a direction parallel to the major axis of the article. D6 disclosed a process in which, after having been hydroentangled in machine direction, a web was cut perpendicular to the machine direction into elongated portions having a hydroentangled pattern in the direction of the major axis for forming cleaning articles. The subject-matter of claim 1 of the fifth auxiliary request, which was filed late during oral proceedings and was inadmissible, because it was clearly not allowable, was also not novel over this prior art. D1 specifically referred to cleaning articles for facial cleaning and D6, although concerned in particular with scouring articles, explicitly

referred to a prior art product used for cleansing human skin.

## Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

2.1 In accordance with the appellant's submissions, the amendment of claim 1 consisting in adding the expression "so that the strength is highest in such direction" immediately after the definition "said entangled fibres are entangled in a direction parallel to said major axis" introduces a causal relationship between the direction of entanglement and the direction of highest strength, i.e. it introduces the information that the entanglement in a direction parallel to the major axis of the cleaning article results in the strength being highest in said direction.

2.2 The only passage in the application as filed referring to the strength of the cleaning article is the following sentence (on column 6, lines 29 to 33, of the application as filed): "By orienting the major axis L of the cleaning article 10 in a direction parallel to the fingers of the user, the cleaning response is dramatically improved since the cleaning performance is a function of strength and the strength is highest in such a direction." The appellant further referred to the passage of the application as filed (see column 2, lines 30 to 32) disclosing "a superior cleaning performance linked to fibre entanglement orientation".

The disclosure, in the former passage, of the superior cleaning performance being linked to the fibre entanglement direction which (as defined in claim 1 of the application as filed) corresponds to the direction of the major axis of the cleaning article, and, in the latter passage, of the cleaning performance being highest in said direction, does not constitute a clear and unambiguous disclosure of the fact that it is the direction of entanglement which determines the direction of highest strength. The above-mentioned passages only allow to establish a causal relationship between the cleaning performance and the fibre entanglement direction, and between the cleaning performance and the direction of highest strength, not however between the direction of highest strength and the fibre entanglement direction. The direction of highest strength might in fact coincide with the fibre entanglement direction, however not necessarily as a result of the entanglement being in such a direction, but, as pointed out by the respondents, as a result of other factors, such as the nature of the fibres and/or their arrangement in the web prior to entangling, which are unconnected to the direction of entanglement.

2.3 Therefore, since the amendment made to claim 1 introduces information which is not clearly and unambiguously derivable from the application as filed, the patent as amended contains subject-matter which extends beyond the content of the application as filed, contrary to Article 123(2) EPC.

The appellant's main request cannot, therefore, be allowed.

3. *The first, second and third auxiliary requests*

Since claim 1 according to the first, second and third auxiliary request also includes the wording according to which "said entangled fibres are entangled in a direction parallel to said major axis, so that the strength is highest in such direction", these requests must fail for the same reasons adduced for the main request.

4. *The fourth auxiliary request*

4.1 *Amendments*

Claim 1 consists of the combination of features of claims 1 and 2 of the application as filed, which are identical to claims 1 and 2 of the patent as granted. Accordingly, claim 1 as amended does not give rise to objections under Article 123(2) and (3) EPC.

4.2 *Sufficiency of disclosure*

Claim 1 refers to a web of hydroentangled fibres which are entangled in a direction parallel to the major axis of the cleaning article. As generally known (see also the patent in suit, col. 4, lines 26 to 29), a hydroentangled web is produced by traversing the web with high energy jet streams of fluid in order to interlock the fibres. As disclosed by document D2 cited in the patent in suit (col. 4, line 32), and as already stated by the Opposition Division (page 5, third paragraph, of the decision under appeal) the fibres of an hydroentangled web are randomly oriented (see D2,

col. 7, lines 40 to 47). During the hydroentangling treatment, fibres and/or segments of fibres are realigned to follow the contours of the apertured patterning member which supports the web (see D2, col. 7, lines 47 to 71 and col. 8, lines 26 to 53). It is therefore clear for a skilled person that, for a hydroentangled web, the direction of entanglement of the fibres cannot be the orientation of individual fibres, as these are randomly oriented, but can only be the direction along which fibres and/or segments of fibres are realigned to follow the contours of the apertured supporting member. There is not necessarily one such direction, since the fibres can be realigned both in the machine and in the cross machine direction as shown in Fig. 9 of D2. However, one such direction is necessarily the machine direction, since the web is moved in machine direction against the jets of high pressure fluid and therefore a realignment of the fibres in that direction necessarily takes place and a corresponding pattern of parallel lines is identifiable on the hydroentangled web.

For a skilled person it is therefore sufficiently clear what direction(s) of a hydroentangled web correspond(s) to a direction of entanglement of the fibres. Since the other features recited in claim 1 do not involve any practical difficulties for the skilled person, it is found that the disclosure of the patent in suit is sufficient in respect of the invention according to claim 1 of the auxiliary request 4.

4.3 *Novelty*

Using the wording of claim 1 of the patent in suit, document D6 discloses (see claim 1) a disposable non-woven cleaning article with an elongated shape (see page 10, lines 28, 29) having a major axis and a minor axis, and at least one web of entangled fibres.

In accordance with the "most preferred embodiment of the invention" of D6 (see page 10, lines 27 to 29), the cleaning article is 70 mm in the direction of the major axis (which is in the claimed range of 30 to 200 mm) and 50 mm in the direction of the minor axis (which is in the claimed range of 30 to 65 mm). Although D6 discloses that this cleaning article comprises entangled filaments, the description of the "most preferred embodiment" does not specify how the filaments are entangled. It is therefore clear for the skilled person that the cleaning article according to this embodiment may be produced according to any of the specific entangling methods referred to in D6, in particular by the hydroentangling method referred to on page 7, lines 23 to 33.

According to the general teaching of D6, which applies to the above-mentioned most preferred embodiment, hydroentangling is carried out in an entanglement station (19, see Fig. 1) where the web is moved in machine direction against jets of fluids perpendicular to the machine direction (page 7, lines 10 to 15 and 23 to 25). Therefore, since at least a pattern of parallel lines in machine direction is produced on the hydroentangled web, the result of the hydroentangling

step is that the fibres are at least entangled in the machine direction.

Since the hydroentangled web is cut into individual articles by blades (28, see Fig. 1; see page 9, lines 3 to 5) oriented perpendicularly to the machine direction, and, as clearly shown in Fig. 1, the major axis of the individual articles is in the machine direction, it directly follows that in the individual article the entangled fibres are entangled in a direction parallel to the major axis.

Therefore document D6 discloses a cleaning article having all the features of claim 1 in combination. Hence the subject-matter of claim 1 lacks novelty (Article 52(1) and 54(2) EPC) and, as a consequence, the fourth auxiliary request is not allowable.

5. *The fifth auxiliary request*

5.1 *Admissibility*

The respondents objected to the admissibility of the appellant's request, it having been filed late during the oral proceedings before the Board of Appeal and not being clearly allowable.

The appellant filed the amended request during the oral proceedings to further distinguish the claimed subject-matter over the cleaning article of D6, by introducing in claim 1 of auxiliary request 4 the additional feature of granted claim 6 according to which the cleaning article is suitable for facial cleansing. The subject-matter of claim 1 results from the combination

of granted claims 1, 2 and 6 and was, therefore, already present as such in the claims of the granted patent against which the opposition was directed. Moreover, the relevance of the additional feature of granted claim 6 is underlined several times in the patent in suit, in particular in paragraph [0006] in which the advantages of the patent in suit are discussed, and in the detailed description of the invention where it is stated (column 4, lines 9 to 12) that this is a preferred feature. Accordingly, the new request does not contain any elements of surprise for the respondents.

Under these circumstances, the Board considers that the respondent's request should be admitted into the proceedings, despite it having been filed late (see in this respect for instance decisions T 1148/97, point 3.1, cited in the Case Law of the Boards of Appeal, fourth edition 2001, page 548).

5.2 *Amendments*

Claim 1 consists of the combination of features of claims 1, 2 and 6 of the application as filed, which are identical to claims 1, 2 and 6 of the patent as granted. Dependent claims 2 to 8 correspond to claims 3 to 5 and 7 to 10 of the application as filed and of the patent as granted. Accordingly, the amendments made to the claims do not give rise to objections under Article 123(2) and (3) EPC.

5.3 *Sufficiency of disclosure*

The above finding (see point 4.2) concerning sufficiency of disclosure is not affected by the addition, compared to claim 1 of the fourth auxiliary request, of the additional feature according to which the cleaning article is suitable for facial cleansing, since the skilled person generally knows which materials and properties are necessary for such a cleaning article. Examples of suitable materials are given in the patent in suit (see paragraph [0016]).

5.4 *Novelty*

Document D6 relates to a scouring article intended for scouring surfaces such as the soiled surfaces of pots and pans (see page 1, line 16; page 4, lines 33 to 37), the article having a binder resin coated thereon which strengthens it (see page 1, lines 5 to 13). Articles of this kind are not suitable for facial cleansing in view of the abrasive properties (cf. D6, page 1, lines 14, 15) that they must posses in order to perform their function.

The respondents pointed out to the passage of D6 on page 3, lines 11 to 24, concerning a prior art article for cleansing human skin suitable also for use as a scouring article. However, this passage is merely descriptive of a prior art essentially unrelated to the teaching of D6, because the prior art article in question does not include a binder resin for binding the filaments together, but is held in integral form solely by the interentanglement of the fibres (page 3, lines 18 to 20), contrary to the teaching of D6.

Moreover, the cited passage does not include any indication that the article according to D6 should, in addition to scouring, be suitable for facial cleansing.

Therefore, since the indication of the suitability "for facial cleansing" implies technical features of the claimed cleaning article which distinguish it from the scouring article of D6, the subject-matter of claim 1 is novel over D6.

5.4.1 Document D1 discloses a disposable non-woven cleaning article with an elongated shape (page 13, lines 19 to 22) having a major axis (L) and a minor axis (C), and at least one web of entangled fibres (page 10, lines 6 to 9), said cleaning article having a size of 70 mm in the direction of said major axis and 50 mm in the direction of said minor axis (this size falls within the claimed range of size of 30 to 200 mm per 30 to 65 mm), wherein said entangled fibres (11) are hydroentangled (page 10, line 7), and said cleaning article (10) is suitable for facial cleansing (page 1, line 14).

Since it is prepared by conventional hydroentanglement processes wherein webs of nonwoven fibres are treated with high pressure fluids while being supported on apertured patterning screens (page 10, lines 6 to 9), the article of D1 is provided with a patterned contour corresponding to the pattern of the screen which supports the web, as shown e.g. in D2 (see in particular Fig. 9), one direction of entanglement necessarily corresponding to the machine direction along which the web is moved during the entangling process. However, since D1 does not specify how the

individual cleaning articles are cut from the hydroentangled web, the fibres of the individual article are not necessarily entangled in a direction parallel to the major axis. For example, if the web is provided with a pattern as shown in Fig. 9 of D2, where two perpendicular entangling directions are clearly recognizable (horizontal and vertical directions in the plane of Fig. 9), and if an individual article is cut such as to have its major axis inclined at 45° degrees with said entangling directions, then in such article the fibres are not entangled in a direction parallel to the major axis.

5.4.2 The remaining prior art documents cited in the opposition proceedings do not disclose an article having the features of claim 1 in combination, and therefore the subject-matter of claim 1 is found to be novel (Article 52(1), 54(2) EPC) over the prior art available in the proceedings before the first instance.

5.5 As regards document D8 cited during the appeal proceedings, the Board notes that it was not filed in support of the objection of lack of novelty, but only of inventive step. In accordance with the submissions of respondent I, it does at least not disclose an article having a size in accordance with claim 1. Since, for the reasons given below, the case is remitted to the first instance for continuation of the opposition proceedings, the Board does not see any reason to admit this document at this stage and therefore disregards it pursuant to Article 114(2) EPC because it was not submitted in due time.

6. *Remittal*

The respondents have requested remittal to the Opposition Division in order not to deprive the respondents of one instance of jurisdiction, and the appellant has agreed with this request. The Board thus considers it appropriate in the present case to exercise its power under Article 111(1) EPC to remit the case to the Examining Division for further prosecution on the basis of the claims according to the fifth auxiliary request.

## 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 for continuation of the opposition proceedings.

The Registrar: The Chairman:

M. Patin P. Alting Van Geusau