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**Datasheet for the decision  
of 24 July 2007**

**Case Number:** T 0540/05 - 3.3.10

**Application Number:** 95903273.1

**Publication Number:** 0731717

**IPC:** A61L 9/01

**Language of the proceedings:** EN

**Title of invention:**

Anti-Smoke perfumes and compositions

**Patentee:**

Quest International Services B.V.

**Opponent:**

The Procter & Gamble Company

**Headword:**

Anti-smoke perfumes/QUEST

**Relevant legal provisions:**

EPC Art. 56, 123(2)

**Keyword:**

"Main and auxiliary request 3: amendments (not allowable) - disclaimer based on non-accidental anticipation"

"Auxiliary requests 1 and 2: inventive step (no) - purported improvement not shown - reformulation of problem - obvious alternative"

**Decisions cited:**

G 0001/03, G 0002/03, T 0020/81, T 0197/86, T 0270/90,  
T 0355/97

**Catchword:**

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Case Number: T 0540/05 - 3.3.10

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.10**  
**of 24 July 2007**

**Appellant I:** The Procter & Gamble Company  
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**Appellant II:** Quest International Services B.V.  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
15 February 2005 concerning maintenance of the  
European Patent No. 0731717 in amended form.

**Composition of the Board:**

**Chairman:** R. Freimuth  
**Members:** J. Mercey  
J.-P. Seitz

## Summary of Facts and Submissions

I. The Appellant I (Opponent) and Appellant II (Proprietor of the patent) lodged appeals on 15 and 21 April 2005 respectively against the interlocutory decision of the Opposition Division posted 15 February 2005 which found that European patent No. 731 717 in amended form met the requirements of the EPC.

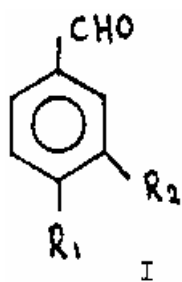
II. Notice of Opposition had been filed by Appellant I requesting revocation of the patent as granted in its entirety on the grounds of lack of novelty and lack of inventive step (Article 100(a) EPC) based *inter alia* on the following documents:

- (1) GB-A-2 205 577 and
- (2) EP-A-401 140.

III. The decision under appeal was based *inter alia* on a main request, and a then first and third auxiliary request, independent claim 6 of the main request reading as follows:

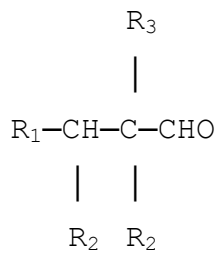
"6. A perfume for counteracting smoke malodours in enclosed air spaces or on substrates comprising:

a) at least 3.5% w/w of one or more perfumery aldehydes of the class I according to the general structure below:



wherein R1 and R2 each may be: hydrogen, alkyl, hydroxyl or alkoxy, or together may be methylenedioxy and

b) at least 10% w/w of one or more perfumery aldehydes of the class II according to the general structure below:



wherein R1 is a phenyl ring optionally substituted with an alkyl group, R2 represents hydrogen or both R2 taken together represent a double bond, and R3 is hydrogen or an alkyl chain with 1 to 6 carbon atoms, excluding the case where the perfume is a lilac perfume compound consisting of benzyl acetate 3.00%, petitgrain para 4.50%, terpineol 15.00%, phenyl ethyl alcohol 30.00%, cananga 4.50%, anisic aldehyde 5.00%, methyl anthranilate 2.00%, hydroxy citronellal 7.00%, phenyl acetaldehyde dimethyl acetal 1.00%, cyclamen aldehyde 2.00%, amyl cinnamic aldehyde 10.00%, musk xylene 6.00% and tolu balsam 10.00%."

Independent claim 5 of the then first and third auxiliary requests differs from independent claim 6 of the main request exclusively in that it contains no disclaimer and that the perfumery aldehydes of the class II are present in an amount of at least 15% w/w.

The Opposition Division held that the amendments made to the then pending main request did not fulfil the requirements of Article 123(2) EPC, since the disclaimer introduced into claims 1 and 6 in order to delimit the claimed subject-matter from document (1) was not allowable, since the disclosure of said document was not accidental. It also held that the subject-matter of claim 12 of the then pending first auxiliary request was not novel over the disclosure of document (1). The subject-matter of the then pending second auxiliary request was considered to involve an inventive step over documents (1) and (2), these documents being mute about the synergistic effect between class I and class II aldehydes and the fact that by using more class II aldehydes, the amount of class I aldehydes could be reduced.

- IV. Annexed to the Statement of the Grounds of Appeal dated 15 June 2005, Appellant II submitted a main request and a first and a second auxiliary request, these requests corresponding to the main, first and third auxiliary requests respectively on which the decision of the opposition division was based. With letter dated 22 June 2007, Appellant II filed a third auxiliary request, Claim 6 of the third auxiliary request being identical to claim 6 of the main request.
- V. Appellant II submitted that the disclaimer in claim 6 of the main and third auxiliary requests fulfilled the requirements of Article 123(2) EPC, since its purpose was to exclude the subject-matter of document (1), which comprised an accidental anticipation according to the criteria set out in decision G 1/03. Thus document (1) was concerned with a different problem than that

addressed by the patent in suit, more particularly it related to perfumes suitable for use in paints and not in air fresheners and was concerned with combating and not counteracting unpleasant odours. The skilled person would therefore have not taken document (1) into consideration when making the present invention.

Appellant II argued that document (2) should be regarded as the closest state of the art and not document (1), since document (2) was concerned with a similar technical problem to that of the disputed patent, namely overcoming malodours, whereas document (1) was related to perfumed paint compositions, the reference therein to smoke malodour being incidental, and there being no mention of counteracting smoke malodours. Starting however from document (1), the Appellant II submitted that the problem to be solved by the patent in suit was to provide a perfume with improved potency in counteracting smoke malodours. Increasing the amount of class II aldehydes in the perfume composition *vis-à-vis* the lilac perfume agent of document (1) led to a dramatic decrease in the perceived intensity of the tobacco malodour, the comparison of the results for perfumes B and C in Table 1 of the specification of the patent in suit demonstrating this effect. There was no incentive for the skilled person to modify the lilac perfume composition of document (1) to arrive at the compositions of the present invention, let alone in the expectation of an improvement. Furthermore, document (1) did not disclose that it was the aldehydes of the lilac perfume composition that were effective against any odours, let alone smoke malodour, the rose perfume agent of document (1) not containing any aldehydes,

such that the skilled person would not have considered modifying the amounts of the aldehydes therein. Finally, the skilled person would not have combined the teaching of document (1) with that of document (2), since this latter document did not refer to the reduction of smoke malodours.

Appellant II filed two documents in connection with the use claim.

- VI. Appellant I submitted that the disclaimer in claim 6 of the main and third auxiliary requests did not fulfil the requirements of Article 123(2) EPC, since document (1) could not be regarded as an accidental anticipation as it belonged to the same technical field. More particularly, it disclosed a perfume for combating tobacco smoke malodour.

In the assessment of inventive step, Appellant I started from document (1). Since no comparative examples were available which showed an effect for the claimed perfume *vis-à-vis* the lilac perfume agent of document (1), the problem to be solved was merely to provide a further perfume composition for reducing smoke malodours. The solution according to claim 5 of the first and second auxiliary requests differed from the lilac perfume agent of document (1) merely in that the perfume contained at least 15 wt. % of class II aldehydes as opposed to 12 wt.% in document (1). Increasing the amount of one of the perfumery aldehydes in the perfume composition of document (1) was well within the routine practice of the skilled person seeking merely an alternative perfume composition for reducing smoke malodours, even more so in the light of

document (2), which taught the synergistic deodorant properties of a combination of class I and class II aldehydes, the ratio of class I to class II aldehydes ranging from 20/80 to 80/20.

Appellant I also filed two documents in connection with the use claim.

VII. Appellant I requested that the decision under appeal be set aside and the patent be revoked.

Appellant II requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request or on the basis of either of the first or second auxiliary requests submitted on 15 June 2005 or on the basis of the third auxiliary request submitted on 22 June 2007.

VIII. At the end of the oral proceedings, the decision of the Board was announced.

## **Reasons for the Decision**

1. The appeals are admissible.

### *Main request and third auxiliary request*

2. *Amendments*

2.1 The amendment made to claim 6 of the main request and third auxiliary request *vis-à-vis* claim 6 as granted comprises the insertion of a disclaimer which excludes a specific lilac perfume composition.



2.2 The Appellants I and II concur on the fact that this disclaimer has no basis in the application as filed and that it was introduced into claim 6 during the opposition proceedings in order to delimit the claimed subject-matter from document (1). Nor is there any dispute between the parties that this document forms part of the state of the art according to Article 54(2) EPC.

2.3 Following the decisions G 1/03 and G 2/03 of the Enlarged Board of Appeal (OJ EPO 2004, 413 and 448), a disclaimer based on a state of the art under Article 54(2) EPC is allowable and is considered as not extending the subject-matter of the application as filed, within the meaning of Article 123(2) EPC, when it restores novelty by delimiting a claim from an accidental anticipation. An anticipation is considered accidental when the disclosure of the document in question is "so unrelated and remote that the person skilled in the art would never have taken it into consideration when working on the invention". When an anticipation is taken as accidental, this means that it appears from the outset that the anticipation has nothing to do with the invention (*loc. cit.*, points 2.2.2 and 2.3.4 of the reasons of the decisions).

2.4 Therefore, in the present case, the issue arise whether or not document (1) is an accidental anticipation in the sense of decisions G 1/03 and G 2/03.

Document (1) relates to perfume compositions which are useful for combating bad and unpleasant odours such as tobacco smoke. Thus, document (1) belongs to the same

technical field as does the claimed invention and is in fact the closest state of the art and thus starting point for assessing inventive step (cf. point 5.2 below). Since this document is not "so unrelated and remote" from the claimed invention that it would never have been taken into consideration when making the invention, it is not an accidental anticipation within the meaning of the decisions G 1/03 and G 2/03.

Document (1) not being an accidental anticipation, it is not allowable to incorporate a disclaimer based on document (1) into claim 6 of either request.

2.5 The Appellant II's argument that the disclaimer was allowable, since document (1) would not have been taken into consideration when making the invention as it was concerned with a different problem than that to be solved by the patent in suit, is irrelevant as the skilled person would indeed have taken document (1) into account when making the invention on the grounds given above.

2.6 For these reasons, the incorporation of the disclaimer into claim 6 of the main request and of the third auxiliary request is an amendment which extends the subject-matter claimed beyond the content of the application as filed, contrary to the requirements of Article 123(2) EPC, with the consequence that the main request and the third auxiliary request are not allowable.

*First and second auxiliary requests*

Claim 5 in each of these requests is identical and is directed to a perfume composition *per se*. It is thus appropriate for the Board to first examine the patentability of claim 5 of each of these requests.

3. *Amendments*

3.1 Claim 5 has been amended *vis-à-vis* claim 6 as granted by virtue of the class II aldehydes being present in an amount of 15% w/w. This amendment finds a basis in claim 6 as filed.

3.2 For these reasons, the Board concludes that the amendment made to claim 5 does not generate subject-matter which extends beyond the content of the application as filed such that the requirements of Article 123(2) EPC are satisfied.

3.3 This amendment brings about a restriction of the scope of the claims as granted, and therefore of the protection conferred thereby, which is in keeping with the requirements of Article 123(3) EPC.

4. *Novelty*

The Appellants I and II conceded that the subject-matter of claim 5 is novel and the Board sees no reason to take a different view. Novelty not being in dispute, it is unnecessary to go into more detail in this respect.

5. *Inventive step*

5.1 According to the established jurisprudence of the Boards of Appeal it is necessary, in order to assess inventive step, to establish the closest state of the art, to determine in the light thereof the technical problem which the invention addresses and successfully solves, and to examine the obviousness of the claimed solution to this problem in view of the state of the art. This "problem-solution approach" ensures assessing inventive step on an objective basis and avoids an *ex post facto* analysis.

5.2 The patent in suit is directed to a perfume composition comprising at least two different aldehydes for reducing smoke malodours. A similar perfume composition already belongs to the state of the art in that document (1) (cf. claim 12) discloses a paint composition containing a lilac perfume agent comprising 5 wt.% of anisic aldehyde, which is an aldehyde of class I according to the patent in suit, 10 wt.% of amyl cinnamic aldehyde and 2 wt.% of cyclamen aldehyde, which are both aldehydes of class II according to the patent in suit, such that said perfume contains a total of 12 wt.% of class II aldehydes. The last paragraph on page 3 discloses that on drying, the paint compositions of the invention slowly release the perfume which thereby act as an air freshener fragrancing the environment and combating bad odours such as tobacco smoke.

The Appellant II argued that not document (1), but rather document (2), was the closest state of the art, since document (2) was concerned with a similar

technical problem to that of the patent in suit, namely overcoming malodours (cf. page 3, lines 48 to 49), whereas document (1) was related to perfumed paint compositions.

However, document (2) addresses the problem of combating malodours in general, but does not specifically refer to smoke malodours, which are, according to Appellant II, notoriously difficult to tackle. The Board concludes therefore that document (2) represents prior art which is further away from the patent in suit than document (1).

Thus, the Board considers, in agreement with Appellant I, that in the present case the lilac perfume agent of document (1) represents the closest state of the art and, hence, takes it as the starting point when assessing inventive step.

- 5.3 In view of this state of the art, the problem underlying the patent in suit, as formulated by Appellant II at the oral proceedings, consists in providing a perfume with improved potency in counteracting smoke malodours.
- 5.4 As the solution to this problem, the patent in suit according to the first and second auxiliary requests proposes a perfume as defined in claim 5 which is characterised by comprising at least 15% w/w of one or more aldehydes of class II.
- 5.5 The Appellants I and II were divided as to whether or not the evidence presented convincingly showed the successful solution of the problem defined in point 5.3

above *vis-à-vis* the closest prior art. To demonstrate that the perfume composition as defined in claim 5 achieves the alleged improvement in potency in counteracting smoke malodours, the Appellant II, who by alleging this fact carries the burden of proving it (see decisions T 270/90, OJ EPO 1993, 725, point 2.1 of the reasons, T 355/97, point 2.5.1 of the reasons, not published in OJ EPO), relied on the test report of Example 2 comprised in the specification of the patent in suit.

- 5.5.1 In Example 2, the tobacco malodour reduction of various perfumes in shampoo was measured, Table 1 indicating the perceived intensity of tobacco malodour achieved using a perfume according to the invention, namely perfume B, and using perfumes falling outside the scope of the invention, such as perfume C.

The Appellant II alleged that a comparison of the results for perfume B with those for perfume C convincingly demonstrated the purported superiority of the claimed perfumes, since it could be deduced from these results that by increasing the amount of class II aldehydes led to a significant decrease in the perceived intensity of the tobacco malodour.

However, the perfumes B and C differ not only by virtue of the distinguishing feature of the invention, namely the amount of class II aldehydes, but also, on the one hand, in the type of class II aldehydes, perfume B containing hexyl cinnamic aldehyde, whereas perfume C does not, and, on the other hand, in the type of class I aldehydes, perfume B containing ethyl vanillin, whereas perfume C does not. Since these examples do not

differ from one another only by virtue of the feature which distinguishes the invention from the closest prior art, the effect shown cannot be attributed to this distinguishing feature, namely the increased amount of class II aldehydes, and thus cannot demonstrate a causal relationship between the claimed solution and this effect (see decision T 197/86, OJ EPO 1989, point 6.1.3 of the reasons). Thus, the comparison of perfume B with perfume C is not suitable for showing an improvement of the claimed perfume over the closest prior art, and accordingly cannot be taken into consideration in the assessment of inventive step.

5.6 According to the jurisprudence of the Boards of Appeal, alleged but unsupported advantages cannot be taken into consideration in respect of the determination of the problem underlying the invention (see e.g. decision T 20/81, OJ EPO 1982, 217, point 3, last paragraph of the reasons). Since in the present case the alleged improvement, namely improved potency in counteracting smoke malodours, lacks the required experimental support, the technical problem as defined in point 5.3 above needs reformulation.

5.7 Consequently, the problem underlying the invention needs reformulation in a less ambitious way. In view of the teaching of document (1), the objective problem underlying the patent in suit is merely the provision of a further perfume composition for reducing smoke malodours.

5.8 Finally, it remains to decide whether or not the proposed solution to that objective problem underlying

the patent in suit is obvious in view of the state of the art.

5.8.1 Document (1) describes combating bad and unpleasant odours such as tobacco smoke using a perfume compound comprising a plurality of ingredients selected for their odorous and retentive qualities (cf. page 2, lines 18 to 20), claim 1 of this document relating to a paint composition including at least one perfume agent without making any restrictions or limitations as to the amounts of the perfume agents to be used. The teaching of document (1), not being confined to its examples, but embracing any information contained therein, is thus not restricted to the specific amounts of the various components in the lilac perfume agent described in the examples thereof. Modifying the amount of one of the perfumery aldehydes in the lilac perfume agent exemplified in document (1), but remaining within the general teaching of that document, was well within the routine practice of the skilled person, faced with the mere problem of providing a further perfume composition for reducing smoke malodours. The amount of at least 15% w/w of class II aldehydes is neither critical nor a purposive choice for solving the objective problem underlying the patent in suit, since no unexpected effect has been shown to be associated with this particular amount. Moreover, document (2) teaches (cf. claim 1 and page 3, lines 39 to 40 and 49 to 50) that mixtures of aldehydes belonging to both classes I and II according to the patent in suit may be used having a higher proportion of class II aldehydes, e.g. up to 80/20, for combating malodours, whatever their origin.



5.9 For the following reasons, the Board is not convinced by the Appellant II's submissions in support of the presence of an inventive step.

5.9.1 The Appellant II argued that there was no incentive in document (1) to increase the amount of class II aldehydes in the lilac perfume agent described therein. However, as no improvement is attributable to the now claimed perfume containing at least 15% w/w class II aldehydes over the perfume containing 12% w/w class II aldehydes given in document (1), the Appellant II's objection that there is no incentive to modify the amount of this aldehyde cannot convince the Board because this is asking for a condition to be met which is meaningless in a situation where the problem resides merely in providing a further perfume composition for reducing smoke malodours and the claimed solution merely consists in specifying an arbitrary amount of class II aldehydes.

5.9.2 The Appellant II further argued that there was no link in document (1) between the smoke malodour reducing effect and the aldehydes of the lilac perfume compound, such that the skilled person would not have considered modifying the amounts of the aldehydes therein. However, such a link is not required when the problem to be solved comprises merely providing a further perfume composition for reducing smoke malodours, since under these circumstances the skilled person would consider modifying any component in the specifically described compositions according to document (1), because the only aim is to provide an alternative perfume composition.

5.9.3 Finally, the Appellant II argued that the skilled person would not have considered document (2) when seeking to solve the problem underlying the patent in suit, since there was no reference in document (2) to combating smoke malodours. However, this argument is redundant, since the subject-matter of the patent in suit is already obvious based on document (1) alone (cf. point 5.7.1 above). In any case, document (2) is concerned with combating malodours in general, "whatever their origin" (cf. page 3, lines 48 to 49), and for that specific hint this document would have been taken into consideration by the skilled person seeking to provide a further perfume composition for reducing smoke malodours.

5.10 Therefore, the solution proposed in claim 5 to the problem underlying the patent in suit is obvious in the light of the prior art.

6. As a result, the Appellant's first and second auxiliary requests are not allowable for lack of inventive step pursuant to Article 56 EPC.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

C. Moser

R. Freimuth