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DECISION
of 14 July 2004

Case Number: T 0553/02 - 3.3.6

Application Number: 97933429.9

Publication Number: 0915953

IPC: C11D 3/39

Language of the proceedings: EN

Title of invention:

Method for treating plastic dishware and kitchenware surfaces with detergent compositions containing bleach

Applicant:

THE PROCTER & GAMBLE COMPANY

Opponent:

-

Headword:

Stain removal method/PROCTER & GAMBLE

Relevant legal provisions:

EPC Art. 52(2)(d), 54, 56

Keyword:

"Exclusion from patentability (Article 52(2)d) of the subject-matter of claim 7 (main and first auxiliary request) - no"
"Novelty of claim 7 (main and first auxiliary request) - no"
"Inventive step (second auxiliary request) - no: obvious application of a known method to different substrates"
"Inventive step (third auxiliary request) - yes: improved performance of the selected bleach on the specific substrate treated"

Decisions cited:

T 1194/97, T 0931/95, T 0959/98

Catchword:

1. A claim directed to a product comprising a composition of matter (here: a bleaching composition) and to instructions for use of the product, wherein the instructions have no technical effect on the product, is not excluded from patentability according to Article 52(2) EPC since the claim has a technical meaning and defines the technical features necessary for the definition of the claimed subject-matter, i.e. a product comprising a composition of matter (reasons for the decision, points 1.2.2 and 1.2.3).

2. Instructions for use contained in a claim directed to a product comprising a composition of matter and which provide no technical contribution to the claimed product are not a technical feature of that product, do not limit in any way the scope of such a claim, and cannot be considered in the evaluation of novelty (reasons for the decision, point 1.3).



Case Number: T 0553/02 - 3.3.6

D E C I S I O N
of the Technical Board of Appeal 3.3.6
of 14 July 2004

Appellant:

THE PROCTER & GAMBLE COMPANY
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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 17 December 2001
refusing European application No. 97933429.9
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P. Krasa
Members: L. Li Voti
C. Rennie-Smith

Summary of Facts and Submissions

I. This appeal lies from the decision of the Examining Division to refuse European patent application no. 97 933 429.9, relating to a method for removing stains from a hard surface.

II. In its decision, the Examining Division, referred to documents

(1): DE-A-3703049 and

(3): EP-A-0024304.

The Examining Division found that

- it was known from documents (1) and (3) that microwaves activated bleaching agents in cleaning operations;
- the skilled person would therefore have expected this type of activation of bleaching agents to be suitable for removing stains from any kind of surface, including plastic dishware and kitchenware;
- the subject-matter of claim 1 therefore lacked an inventive step;
- claim 8, relating to a product comprising a known cleaning composition comprising a bleaching agent and instructions for its use according to the method of claim 1, had to be considered as

relating to a presentation of information and therefore was not patentable (Article 52(2)d EPC).

III. An appeal was filed against this decision by the Applicant (Appellant).

The Appellant filed, during the oral proceedings held before the Board on 14 July 2004, four sets of claims as main and first to third auxiliary requests, respectively.

The wording of Claim 1 of the main request differs from that of claim 1 considered by the first instance in its decision *inter alia* insofar as it requires the presence of a diacyl peroxide as bleaching agent and reads as follows:

"1. A method for removing stains from a substrate selected from a plastic dishware or kitchenware comprising the steps of:
a) contacting said substrate, in the presence of water or a solvent which generates heat under microwave radiation, with a treating composition comprising a diacyl peroxide;
b) subjecting said substrate to microwaves for a sufficient period to effectively treat said substrate."

Claim 7 of the main request (corresponding to claim 8 referred to in the decision under appeal) reads as follows:

"A product comprising: a treating composition comprising a diacyl peroxide; and instructions for use of the treating composition, said instructions include

the steps of: a) contacting a substrate selected from a plastic dishware or kitchenware, in the presence of water or a solvent which generates heat under microwave radiation, with said treating composition; and b) subjecting said substrate to microwaves for a sufficient period to effectively treat said substrate."

The main request also contains dependent claims 2 to 6 relating to specific embodiments of the claimed method and claim 8 relating to the use of a cleaning composition comprising diacyl peroxide in such a method.

The set of claims in the first auxiliary request differs from that of the main request insofar as claims 1, 7 and 8 no longer list kitchenware as one of the selected substrates to be treated.

The sets of claims according to the second and third auxiliary requests differ from those of the main and first auxiliary requests, respectively, insofar as they do not contain claim 7.

All the auxiliary requests contain dependent claims and a use claim as the main request.

IV. The Appellant submitted orally and in writing in regard to claim 7 that

- this claim was not to be considered either as a method, a process or a use claim or as a product claim requiring the presence of means for presenting the claimed instructions but as a claim relating both to a physical product, i.e. a composition comprising a bleach, and to

instructions for its use as such without any limitation as to the means for providing such instructions;

- the instructions for use in claim 7 were technical features since they had to be applied in using the bleaching composition in order to solve the technical problem underlying the claimed invention and thus were "functional data" within the meaning of decision T 1194/97;
- claim 7, containing only technical features was thus directed to patentable subject-matter;
- moreover, even if the instructions were considered to be non-technical features, they enabled the skilled person to use the claimed composition for a specific purpose, i.e. the removal of stains, thus using technical means in order to solve a technical problem;
- therefore, the subject-matter of claim 7 was patentable since there was an interaction between technical and non-technical features resulting in a technical effect.

As regards novelty of the subject-matter of claim 7, the Appellant submitted that the prior art did not disclose both a diacyl peroxide and the specific instructions of claim 7.

As regards inventive step the Appellant submitted that

- the cited prior art did not relate to the treatment of plastic surfaces or of kitchenware;
- the experimental report filed under cover of a letter dated 27 August 2001 showed that benzoyl peroxide, a diacyl peroxide, performed much better than other commonly used bleaches in the removal of stains or soils from plastic kitchenware or dishware in a method according to the claimed invention;
- moreover, similar results had also to be expected in the treatment of other materials of which kitchenware can be made;
- since the superior performance of diacyl peroxide was not to be expected in the light of the teaching of the prior art, the claimed subject-matter involved an inventive step.

V. The Appellant requests that the decision of the first instance be set aside and that a patent be granted on the basis of either the main request or of one of the first to third auxiliary requests filed during the oral proceedings.

Reasons for the Decision

1. *Main request*

1.1 *Articles 84 and 123(2) EPC*

The Board is satisfied that the claims according to the main request satisfy the requirements of Articles 84 and 123(2) EPC.

1.2 *Patentability of the subject-matter of claim 7 under Article 52(2)d EPC*

1.2.1 The Examining Division found in its decision that claim 8, corresponding substantially in its wording to claim 7 of the main request, contained both technical and non-technical features, the technical features being represented by a known bleaching composition and the non-technical features by the instructions for its use according to a method identical to that of claim 1. The claim had thus to be considered to relate simply to a presentation of information and thus not to patentable subject-matter (Article 52(2)d EPC).

The Appellant stated during oral proceedings that the subject-matter of claim 7 has not to be considered as a method, a process or a use claim or as a product claim requiring the presence of means for presenting the claimed instructions but as a claim relating both to a physical product, i.e. a composition comprising a bleach, and to instructions as such for its use without any limitation as to the means for providing them.

Since this interpretation of the claim is consistent with the description of the application as filed indicating that such instructions can be provided also by means not associated with the package containing the composition, e.g. in advertisements or orally (see page 19, lines 21 to 28), and the wording of the claim does not contain any indication about the manner of providing the instructions, the Board accepts the Appellant's interpretation of claim 7 that means for providing the instructions are not a feature of the claim.

- 1.2.2 The Appellant put forward during oral proceedings that claim 7 contained only technical features and argued that, in fact, the instructions for use were technical features themselves since they were necessary for solving the technical problem underlying the claimed invention and were "functional" data within the meaning of decision T 1194/97 (OJ EPO 2000, 525).

The Board cannot accept these arguments.

The above mentioned decision relates *inter alia* to the patentability of a claim relating to a record carrier and a picture recorded thereon. Such a claim was considered not to relate to a presentation of information as such since the recorded picture amounted to "functional data" which were materialised in particular physical structures of the record carrier as technical functional features, e.g. line numbers, coded picture lines, addresses and synchronisations, distinguishing the latter from other record carriers not embodying the invention (see points 2.5, 3.1 of the reasons for the decision).

As to the meaning of "functional data" the decision explains that "...the distinction between functional data and cognitive information content in relation to technical effect and character may be illustrated by the fact that...complete loss of the cognitive content... has no effect on the technical working of the system, while loss of functional data will impair the technical operation and in the limit bring the system to a complete halt (point 3.3 of the reasons for the decision)."

The Board finds therefore that there does not exist any parallelism between claim 7, directed to a composition comprising a bleach and to instructions for its use, and the claim of the above cited case, directed to a record carrier and a picture recorded thereon, insofar as the instructions of claim 7 are not materialised in particular physical structures of the bleach composition.

Moreover, a bleaching composition, unlike a record carrier, necessarily has a technical effect, i.e. a bleaching effect, e.g. in the treatment of stains on a surface, because of its intrinsic chemical nature and independently of the given instructions. The lack of the instructions thus does not affect the technical properties of the system, i.e. its usefulness in the bleaching of stains. The situation is different from that of a record carrier which cannot give by itself a readable image but needs information encoded thereon.

Finally, whilst in the cited case the information (picture) needs to be encoded on the record carrier, which is part of the claimed subject-matter, in order to be elaborated by a system (read device), in the present case the information does not need the bleach composition for its receipt, e.g., by a human being reading or listening to the information which can be provided by separate means which are completely independent from the bleach composition.

The Board concludes thus that the instructions of claim 7 are not "functional data" of the claimed product comprising the diacyl peroxide within the meaning of the above mentioned decision.

Furthermore, the instructions of claim 7, even when describing the technical method of claim 1, have no technical effect themselves on the bleach or on the product containing the bleach since they need the external action of e.g. a human being receiving and understanding the information before applying it and relate solely to the use of the bleaching composition in a specific process. It follows that these instructions as such cannot be considered as technical features, let alone as distinguishing features of the claimed product.

- 1.2.3 Whilst the instructions for use in claim 7 are by themselves just a presentation of information without a technical effect on the bleaching composition or the product comprising the bleaching composition, the physical component of claim 7, i.e. the bleaching composition or the product comprising it, are by themselves not excluded from patentability according to

Article 52(2) EPC since they have a technical meaning and define the technical features necessary for the definition of the claimed subject-matter.

The Board finds thus that claim 7 does not relate simply to a presentation of information as found by the first instance, but relates to an invention defined by technical features, i.e. a product comprising a bleaching composition.

Whether the claimed product is novel or not is in the present case not relevant for the evaluation of patentability (see e.g. T 931/95, OJ EPO 2001, 441, point 6 of the reasons for the decision).

The Board concludes that the subject-matter of claim 7 is not excluded from patentability according to Article 52(2) EPC.

- 1.2.4 The Board notes also that this conclusion confirms what is set out in the Guidelines for Examination in the EPO. In fact section C IV 2.2 specifies that exclusion from patentability under Article 52(2) EPC applies only to the extent to which the application relates to the excluded subject-matter as such (**which is not the present case**) and that the content of the claim should be considered as a whole in order to decide whether the claimed subject-matter has a technical character; furthermore, section C IV 2.3, discussing presentation of information, deals with claims directed to the presentation of information as such or with claims directed to a process or a product (apparatus) for presenting information and not with a claim such as the present one, directed to two separate entities, a

physical product and an information having no technical effect on the claimed physical product.

1.2.5 The Board notes also that in the present case the allowability of such a claim under Rule 29(2) EPC, i.e. if it is justified to incorporate these subject-matters in one single claim instead of in a plurality of claims, had not been raised during the first instance proceedings and has not been discussed during appeal proceedings.

1.3 Novelty of claim 7

Since the instructions of claim 7, which are non-technical features providing no technical contribution to the claimed product comprising a bleaching composition, do not limit in any way the scope of such a claim (see point 1.2.2 above), they do not have to be considered in the evaluation of novelty (see e.g. T 959/98, unpublished in OJ EPO, point 1.3.8 of the reasons for the decision).

Claim 7 thus relates on a proper reading simply to a bleaching composition which may consist of up to 100% diacyl peroxide.

Since diacyl peroxides were known bleaches at the priority date of the present application, as not disputed by the Appellant, the Board concludes that the subject-matter of claim 7 lacks novelty.

1.4 The main request has thus to be dismissed.

2. *First auxiliary request*

The set of claims according to the first auxiliary request contains, as the main request, a claim 7 directed both to a product comprising a composition comprising diacyl peroxide and to instructions for its use.

Therefore this claim lacks novelty for the same reasons put forward in point 1.3 above.

3. *Second auxiliary request*

3.1 Articles 84, 123(2) and 54 EPC

The Board is satisfied that the claims according to the second auxiliary request, which do not contain any claim directed to a product comprising both a composition comprising diacyl peroxide and instructions for its use, satisfy the requirements of Articles 84, 123(2) and 54 EPC.

3.2 Inventive step

3.2.1 The subject-matter of claim 1 according to the second auxiliary request relates to a method of removing stains from either plastic dishware or kitchenware with a composition comprising a diacyl peroxide bleach activated by means of microwaves (see also page 1, lines 1 to 21; page 2, lines 33 to 36; page 3, lines 7 to 12 and 21 to 23; page 4, lines 7 and 29).

The description of the present application explains that it was known to use bleaches for removing stains from various substrates but there was a need for a method of bleaching under which bleaches are stable, perform efficiently and effectively under mixed soil load conditions and are effective for a variety of substrates (page 2, lines 23 to 32).

Document (1) describes a method of bleaching surfaces, in particular of removing stains from textile surfaces, by applying to the surface to be treated a liquid bleaching composition, e.g. an aqueous bleaching solution, and then subjecting the treated surface to microwaves in order to activate the bleach (see claim 1; column 3, lines 14 to 22; column 4, lines 26 to 30; column 5, lines 32 to 36). Such a method permits the control of the bleach decomposition and an efficient and effective bleaching of the treated surface without the use of high temperatures and without high costs (column 3, lines 4 to 54).

Therefore, the Board takes this document as the most suitable starting point for the evaluation of inventive step of the claimed subject-matter.

The method disclosed in document (1) differs from the subject-matter of claim 1 according to the second auxiliary request insofar as it is not applied to plastic dishware or kitchenware and it does not explicitly teach the use of a diacyl peroxide bleach.

- 3.2.2 The Appellant filed an experimental report before the first instance under cover of a letter dated 27 August 2001. In this report it was shown that benzoyl peroxide,

a diacyl peroxide, in a method according to claim 1, performed much better in the removal of stains or soils from plastic kitchenware or dishware than other commonly used chlorine or hydrogen peroxide bleaches. Similar results had thus to be expected according to the Appellant's submissions in the treatment of other materials of which kitchenware can be made.

The alleged technical problem underlying the claimed invention can thus be defined according to the Appellant as the selection of a bleaching agent which, in a method including the activation of bleach by microwaving, performs better than other commonly used bleaches in the removal of stains from plastic dishware or kitchenware.

However, the Board finds that the application as filed did not contain any information about the different performance of different bleaches on different surfaces under the conditions of the claimed process (see page 7, line 12 to page 9, line 29) and, in fact, diacyl peroxides, chlorine bleaches and hydrogen peroxide bleaches were equally preferred (see page 3, lines 21 to 23). A similar teaching can also be found in document (1) (column 4, line 26 to column 5, line 15).

Moreover, even though the experimental evidence submitted shows the better performance of the diacyl peroxide on plastic or thermoplastic surfaces in comparison to a chlorine and a hydrogen peroxide bleaching agent, it does not show that such a better performance is maintained on other surfaces of which kitchenware can be made, e.g. glass, wood or ceramic.

The Board thus cannot accept, in the absence of any evidence, that the effect shown on plastic or thermoplastic substrates has also to be expected on very different substrates, e.g. wood, ceramic or glass, for which a different cleaning efficiency has to be expected.

The Board concludes therefore that the alleged improved performance of diacyl peroxides has been supported only for the treatment of plastic dishware but not for the treatment of any type of kitchenware and that therefore the alleged technical problem cannot be considered to have been solved by all the embodiments encompassed by the wording of claim 1.

The technical problem underlying the present invention as represented in claim 1 has thus to be reformulated in the light of the teaching of document (1) in simpler terms as the application of the known method of treatment of document (1) to other substrates.

The Board has no doubt that the claimed subject-matter solved this existing technical problem.

- 3.2.3 Document (3) disclosed a method for disinfecting surfaces, e.g. textile surfaces or plastic surfaces, by means of a process involving the treatment of such surfaces with a liquid bleaching composition, e.g. an aqueous bleaching solution, which could comprise e.g. a chlorine or a hydrogen peroxide or a diacyl peroxide bleach, and then microwaving (see page 2, line 31 to page 3, line 25; page 6, line 34 to page 7, line 27). This document teaches also that microwaves are able to permeate not only the surface but also the inner of the

treated substrates, thus resulting in a more efficient bleaching (see page 3, line 25 to page 4, line 1).

In the light of this technical teaching the skilled person would have thus expected the method of bleaching disclosed in document (1) to be applicable to any surface and also to the use of diacyl peroxides as bleaching agents.

Similarly to the first instance (see point 2.1 of the first instance decision), the Board finds thus that it was obvious to the skilled person to apply a method of cleaning including the activation of bleaches by microwaves as described in document (1) to the use of diacyl peroxides and to the cleaning of any type of substrate and to expect an efficient removal of stains against which these bleaches are known to be effective.

The Board concludes therefore that the subject-matter of claim 1 does not comply with the requirements of Article 56 EPC.

The second auxiliary request has thus to be dismissed.

4. *Third auxiliary request*

4.1 Articles 84, 123(2) and 54 EPC

The Board is satisfied that the claims according to the third auxiliary request satisfy the requirements of Articles 84, 123(2) and 54 EPC.

4.2 Inventive step

- 4.2.1 Claim 1 of the third auxiliary request differs from the respective claim 1 of the second auxiliary request insofar as the claimed method is limited to the removal of stains from plastic dishware.

The Board has thus no reason to doubt that the evidence introduced by the Appellant under cover of a letter dated 27 August 2001 convincingly show that diacyl peroxides perform better than other currently used bleaches in a process as claimed (see point 3.2.2 above).

- 4.2.2 The Board finds thus that the alleged technical problem, i.e. the selection of a bleaching agent which, in a method of cleaning including the activation of bleach by microwaving, performs better than other commonly used bleaches in the removal of stains from plastic dishware, has been convincingly solved by the claimed subject-matter.

- 4.2.3 Since the cited prior art does not suggest that diacyl peroxides could perform better than other bleaches on plastic dishware under the conditions used in the claimed method, the Board concludes that the subject-matter of the claims according to the auxiliary request complies with the requirements of Article 56 EPC.

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 grant a patent on the basis of the third auxiliary request filed during oral proceedings and a description to be adapted thereto.

The Registrar:

The Chairman:

G. Rauh

P. Krasa