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Datasheet for the decision of 18 October 2011

Case Number: T 1199/07 - 3.3.07

Application Number: 97928688.7

Publication Number: 952807

IPC: A61K 7/00, A01N 25/34, B32B 27/00, A61K 9/70

Language of the proceedings: EN

Title of invention:
Anti-viral, anhydrous, and mild skin lotions for application to tissue paper products

Patent proprietors:
THE PROCTER & GAMBLE COMPANY

Opponents:
GEORGIA-PACIFIC FRANCE
KIMBERLY-CLARK WORLDWIDE, INC.

Headword:
-

Relevant legal provisions:
EPC Art. 56, 100(a)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step - no (all requests)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1199/07 - 3.3.07

D E C I S I O N
of the Technical Board of Appeal 3.3.07
of 18 October 2011

Appellants: (Opponents 2)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 9 May 2007 rejecting the opposition filed against European patent No. 952807 pursuant to Article 101(2) EPC.

Composition of the Board:

Chairman: J. Riolo
Members: D. Semino
D. T. Keeling

Summary of Facts and Submissions

I. The appeal of opponents 02 (appellants) lies against the decision of the Opposition Division announced at the oral proceedings on 17 April 2007 to reject the oppositions against European Patent 0 952 807. The granted patent comprised 20 claims, independent claim 1 reading as follows:

"1. A lotioned tissue paper having applied to at least one surface thereof, in an amount of from 2 to 30% by weight of the dried tissue paper, an anti-viral lotion composition which is semi-solid or solid at 20°C and which comprises:
(A) from 1 to 25% of an organic acid capable of killing such viruses as rhinovirus and influenza which come into contact with the anti-viral lotion, wherein said anti-viral organic acid is a solid at room temperature and comprises a member selected from the group consisting of citric acid, adipic acid, glutaric acid, succinic acid, and mixtures thereof;
(B) from 5 to 25% of a hydrophilic solvent capable of aiding in the dissolution of the organic acid, said solvent may either be liquid or solid at room temperature and comprises a member selected from the group consisting of glycerin, propylene glycol, hexylene glycol, and polyethylene glycols ranging in molecular weight from 200 to 900, and mixtures thereof;
(C) from 5 to 60% of a substantially water free skin emollient having a plastic or fluid consistency at 20°C and comprises a member selected from the group consisting of petroleum-based emollients, fatty acid ester emollients, fatty alcohol emollients, and mixtures thereof;

(D) from 5 to 50% of an agent capable of immobilizing said emollient on the surface of the tissue paper, said immobilizing agent having a melting point of at least 35°C and comprising a member selected from the group consisting of C_{12}-C_{22} fatty alcohols, C_{12}-C_{22} fatty acids, waxes, and mixtures thereof;
(E) from 1% to 50% of a non-ionic surfactant with said surfactant having an HLB value of at least about 4; and
(F) optionally contains from 0.1% to 20% of a natural oil, vitamin, or other additive comprising a member selected from the group consisting of aloe, vitamin E, panthenol, camphor, thymol, menthol, eucalyptol, geraniol, lemon oil, methyl salicylate, clove and mixtures thereof."

II. Two notices of opposition had been filed against the granted patent requesting revocation of the patent in its entirety on the grounds of lack of inventive step (both opponents) and insufficient disclosure (opponents 02), in accordance with Article 100(a) and (b) EPC. The oppositions were *inter alia* supported by the following documents:

E3: WO-A-95/35412
E4: US-A-4 764 418
E11: GB-A-2 103 089
E12: EP-A-0 049 354

III. The decision under appeal, as far as the analysis of inventive step is concerned, can be summarised as follows:

(a) E3 was taken as the closest prior art as the anti-viral aspect and the lotion aspect were equally

important and the compositions of E3 were closer to the opposed subject-matter than the compositions of E4 and E12.

(b) The technical problem with respect to E3 was the provision of a lotioned tissue paper having anti-viral properties, the compounds thereof being transferable to the skin. The anti-viral effect when mixing an anti-viral with a lotion was credible and no evidence had been filed that the compositions would not be transferable to the skin upon use, so that the technical problem was credibly solved over the whole scope of the claim.

(c) In order to solve the problem, the presence of the surfactants (E) together with the hydrophilic solvents (B) was required to incorporate the anti-viral carboxylic acids (A). There was no suggestion in that sense in E4 or E12. The skilled person looking for transferable compositions would have combined the teachings of those documents only if he had been aware of the transfer properties of the product according to E3, which was not the case. He would have expected lotioned anti-viral properties, but not the transfer properties. The transfer properties were not a bonus effect either. For those reasons the claimed subject-matter involved an inventive step. The same conclusions would be obtained starting from E4 or E12 as the closest prior art.

IV. Opponents 02 (appellants) appealed that decision. In the statement of grounds they maintained their

objections of lack of inventive step and insufficient disclosure.

V. With the reply to that statement the patent proprietors (respondents) resubmitted two auxiliary requests which had been submitted before the first instance. Claim 1 had been amended in auxiliary request 1 by specifying that the anti-viral lotion composition was "substantially anhydrous" and in auxiliary request 2 by adding the feature "and wherein no water is intentionally added to the anti-viral composition" at the end of the claim.

VI. Opponents 01, who are party as of right of the appeal proceedings, expressed their agreement with the arguments of the appellants and supported their requests.

VII. Oral proceedings were held on 18 October 2011 in the announced absence of the respondents and of the party as of right.

VIII. The arguments of the appellants (opponents 02) regarding inventive step can be summarised as follows:

(a) Since the anti-viral aspect and the lotion aspect of the claimed product were equally important in the patent in suit and both aspect were well-known, the skilled person could reasonably start from a document relating to either one or the other. E3 could then be considered as the closest prior art as in the appealed decision. It disclosed a lotioned tissue paper having applied thereon a lotion including a skin emollient, an

agent capable of immobilizing the emollient and a non-ionic surfactant largely overlapping both for the specific compounds mentioned and for their quantities with compounds (C), (D) and (E) of claim 1. According to E3 usual emollients, such as glycerine and propylene glycol, could be added to the lotion as well as pharmaceutical compounds. The difference of the claimed tissue paper with respect to the disclosure of E3 was therefore only the presence of an organic acid (A).

(b) The problem as presented in the patent in suit referred to many different effects (paragraph [0011]). However, those effects were either already present in E3 or not substantiated by evidence. In particular there was no evidence for the anti-viral activity of the tissue paper, nor for the transferability of the actives to the skin, which in any case was inherent in E3. Therefore, the problem could be seen simply in the provision of an alternative lotioned tissue paper.

(c) It was known from E12 to use glutaric acid on a carrier, such as a lotion, to impregnate a paper article for achieving a virucidal effect. Similarly, E4 disclosed the use of a citric acid virucidal composition blended with a humectant, such as glycerine, propylene glycol or polyglycols on a tissue product. The skilled person aiming at solving the posed problem would combine the lotioned tissue paper of E3 with the carboxylic acids of E12 or E4 without exercising any inventive activity, thereby obtaining the claimed composition.

(d) In view of the disclosures in E4 and E12, the same conclusion would be obtained, even if the anti-viral activity of the claimed product were accepted and the problem were formulated as the provision of a lotioned tissue paper as the one of E3 with therapeutical properties, since there was no synergy among the components of the lotion, which resulted instead from the simple juxtaposition of ingredients known from the prior art documents.

(e) Since E3 disclosed water free compositions, the same arguments applied to the products of the auxiliary requests.

IX. The arguments of the respondents (patent proprietors) regarding inventive step can be summarised as follows:

(a) The analysis of inventive step in the contested decision was correct in particular with regard to the formulation of the problem with respect to E3, taken as the closest prior art, as the provision of a lotioned tissue paper having anti-viral properties, the compounds thereof being transferable to the skin.

(b) The fact that the organic acid present in the lotion had anti-viral activity was confirmed by many documents of the prior art, including E4 and E12, and could not be put in doubt. Moreover, no evidence had been provided by the opponents to show that the compositions would not be transferable to the skin upon use. On the

contrary, their argument that the lotions of E3 were inherently transferable to a user's skin and their objection that the patent did not provide evidence of transferability were contradictory. Indeed, the patent identified the lotions as being transferable to the skin in several different locations. For those reasons, the problem as formulated in the contested decision was correct.

(c) E3 was completely silent about the desire of transfer of the lotion to the skin. Also the passages of E3 relating to the function of the emollient could not be read as referring to a transfer to the skin. No other document contained a teaching concerning the transferability of the components of the lotion to the skin. Therefore, no combination could have led the skilled person to the claimed invention, which was to be seen as inventive.

No separate arguments were provided by the respondents concerning the auxiliary requests.

X. The appellants (opponents 02) requested that the decision under appeal be set aside and that the European patent be revoked.

XI. The respondents (patent proprietors) had requested in writing that the appeal be dismissed or that, in the alternative, the patent be maintained in accordance with auxiliary requests 1 and 2 filed by letter of 21 January 2008.

Reasons for the Decision

1. The appeal is admissible.

Main request - Inventive step

2. *Closest state of the art*

2.1 Both the appealed decision and the main submissions of the parties considered document E3 as the closest prior art. The Board agrees with the reasons which led to that choice (the anti-viral aspect and the lotion aspect are equally important and the compositions of E3 are closer to the opposed subject-matter than the compositions of E4 and E12) and has no reason to deviate from it.

2.2 Document E3 relates to lotion compositions for imparting a soft lubricious feel to tissue paper (page 1, lines 15-17).

2.2.1 It discloses a lotion composition for treating tissue paper which is semi-solid or solid at 20°C and which comprises:
(A) from 20 to 95%, preferably from 5 to 80%, of a substantially water free emollient having a plastic or fluid consistency at 20°C and comprising a member selected from petroleum-based emollients, fatty acid ester emollients, alkyl ethoxylate emollients, fatty acid ester ethoxylates, fatty alcohol emollients, and mixtures thereof;
(B) from 5 to 80%, preferably from 5 to 50% of an agent capable of immobilizing said emollient on the surface of tissue paper treated with the lotion composition,

said immobilizing agent having a melting point of at least 35°C, preferably at least 40°C, and comprising a member selected from C_{14}-C_{22} fatty alcohols, C_{12}-C_{22} fatty acids, C_{12}-C_{22} fatty alcohol ethoxylates, and mixtures thereof; and
(C) optionally from 1 to 50%, preferably from 1 to 25% of a hydrophilic surfactant having an HLB value of at least 4, preferably from 4 to 20 (claim 1). The lotion composition is applied to at least one surface of a lotioned tissue paper in an amount of from 2 to 20% by weight of the dried tissue paper (page 5, lines 32-34).

2.2.2 The emollients useful in the compositions of E3 can include minor amounts (e.g. up to 10% of the total emollient) of other conventional emollients, such as propylene glycol and glycerine (page 15, lines 16-21). As optional components also pharmaceutical actives can be present in the compositions of E3 (page 25, lines 4-8).

2.2.3 The examples of E3 (pages 29 to 32) disclose five water free lotion compositions (lotions A, B, C, D and E) comprising 39 to 57 weight percent of White Protopet® 1S (a petroleum-based emollient, see page 29, lines 9-10 and page 14, lines 9-20 of E3, which falls under ingredient (A) of E3 and ingredient (C) of the patent in suit), 35 to 40 weight percent of cetearyl alcohol (a mixed linear C_{16}-C_{18} primary alcohol, see page 29, lines 10-11 of E3) or 23 weight percent of stearic acid (immobilizing agents falling under ingredient (B) of E3 and ingredient (D) of the patent in suit, see page 17, lines 14-27 of E3 and paragraph [0060] in the patent in suit), 15 to 20 weight percent of Steareth-10 (a non-ionic surfactant falling under ingredient (C) of E3 and

ingredient (E) of the patent in suit, see paragraph bridging pages 23 and 24 of E3, in particular page 24, line 14 and paragraph [0079] in the patent in suit) together with other minor components. Those compositions are applied to tissue paper (part B of all examples on pages 29 to 32).

2.3 In summary document E3 discloses lotioned tissue paper having applied thereon a lotion composition including ingredients largely overlapping with ingredients (C), (D) and (E) of the patent in suit both as far as the compounds and as far as the quantities are concerned. In particular all examples of E3 contain ingredients falling under ingredients (C), (D) and (E) of the patent in suit in quantities according to granted claim 1. In addition, it is foreseen in E3 to include components falling under ingredient (B) in quantities overlapping with those of granted claim 1 together with pharmaceutical actives. Organic acids with anti-viral action are, however, not mentioned.

3. *Problem solved*

3.1 The problem to be solved as addressed in the patent in suit is to provide "lotioned tissue products that: (1) kills (*sic*) rhinovirus and influenza viruses within the tissue; (2) contains (*sic*) an anhydrous, anti-viral lotion that can be transferred to the skin or inanimate objects to kill viruses coming into contact with those lotioned skin or inanimate regions; (3) do not adversely affect the tensile strength, absorbency and caliper of the product; (4) are mild to the skin; (5) possess a soft and lubricious feel; (6) provide skin benefits associated with alpha hydroxy acids; (7)

anhydrous lotion limits lotion diffusion and aids in the maintenance of such physical properties as tensile and caliper; (8) optionally contain a natural oil such as eucalyptol, menthol, thymol, camphor, lemon oil, methyl salicylate and mixtures thereof; and (9) do not require special wrapping or barrier materials for packaging" (paragraph [0011] in the patent).

3.2 A number of these objectives are already addressed in E3 which aims at providing "lotioned tissue products that: (1) have a desirable soothing, lubricious feel; (2) do not require relatively high levels of mineral oil; (3) do not adversely affect the tensile strength and caliper of the product; and (4) do not require special wrapping or barrier materials for packaging" (page 5, lines 7-11) and uses ingredients which are mild to the skin (page 18, line 24 and page 22, line 35 to page 23, line 1). As far as these effects are concerned, the respondents never claimed that any further improvement with respect to the prior art has been achieved, nor did he provide any evidence in that respect.

3.3 The benefits related to the presence of alpha hydroxy acids and natural oils must be disregarded in the formulation of the technical problem, since they relate to optional features of the composition (only citric acid, which is one of the four possible organic acids listed in ingredient (A), is a alpha hydroxy acid and ingredient (F) is optional in claim 1).

3.4 The only two effects among the ones listed in the scope of the patent which remain to be analysed for the claimed lotioned tissues with respect to the tissues of

E3 (and which have been considered as crucial both in the decision and in the submissions of the parties) concern the anti-viral activity of the lotion and its transferability to the skin ("(1) kills rhinovirus and influenza viruses within the tissue; (2) contains an anhydrous, anti-viral lotion that can be transferred to the skin or inanimate objects to kill viruses coming into contact with those lotioned skin or inanimate regions" in paragraph [0011]).

3.5 As far as the anti-viral activity is concerned, there is no compound in the compositions of E3 to which any anti-viral activity has been ascribed either in that document or in the prior art. The claimed product contains instead organic acids, which not only are defined as anti-viral throughout the patent in suit, but are known for their virucidal properties in several documents cited in the proceedings (E4, column 1, lines 15-18 and column 3, lines 36-37; E11, page 2, lines 24-27; E12, page 2, line 33 to page 3, line 5). In those documents the virucidal activity of some of the acids has also been tested (E11, Virucidal testing from page 5 to page 13; E12 tests on pages 3 and 4).

Under such circumstances, the anti-viral activity of the claimed lotioned tissues, to which the lotion containing the acids has been applied, is considered to be credible. In the absence of any evidence of the contrary on the side of the appellants, it is therefore accepted that the claimed lotioned tissue papers have anti-viral activity which the tissue papers of E3 do not possess. In this respect it is noted that the allegations of the appellants that the anti-viral activity may be impaired by the lotion carrier or be

negligible in case of low quantities of organic acid in the lotion and low quantity of lotion applied to the tissue paper have not been substantiated by evidence. While it is reasonable that the anti-viral activity will depend on the quantity of anti-viral acid employed, in the absence of evidence there is no reason to believe that there will be no anti-viral activity at all for values falling under the ranges in the claims and in the presence of the other components of the lotion.

3.6 With regard to transferability of the lotion to the skin upon use, the compositions of E3 contains as an essential ingredient an emollient, which "is a material that softens, soothes, supples, coats, lubricates, moisturizes, or cleanses the skin" (E3, page 13, lines 27-28). Moreover, they may include disinfectant antibacterial actives and pharmaceutical actives among others (page 25, lines 7). When considering the disclosure of E3, it is at least implicitly apparent to the person skilled in the art that, when lotioned tissue papers as the one of E3 are used (e.g. as toilet or facial tissues), some transfer of lotion components to the skin must take place. Indeed, it is hardly conceivable that a softening, coating, moisturising or therapeutical effect on the skin could take place without transfer of the relevant components to the skin, so that that property was at least implicitly intended in the disclosure of E3.

While the patent in suit contains the explicit information that the lotion is meant to be transferable to the skin upon use (paragraph [0011]), no evidence is available that an improvement in transferability of the

lotion with respect to the tissue papers of E3 is achieved by the claimed tissue papers. The good transferability is apparently linked in the patent in suit to the absence of water (paragraph [0014], page 3, lines 52-53; paragraph [0039], page 7, lines 26-27), which does not represent a difference to E3 (the compositions in all examples of E3 are water free, see point 2.2.3 above). Under such circumstances, it cannot be acknowledged that an effect unknown to the skilled person familiar with E3 is present, nor that any improvement with respect to that effect is achieved.

3.7 In view of this analysis, the problem solved by the claimed product is to provide a lotioned tissue paper, starting from the one of E3, having therapeutical properties. As analysed above (see in particular point 3.5), this problem has been effectively solved over the whole breadth of the claim.

4. *Obviousness*

4.1 It remains to be decided whether the skilled person starting from document E3 and looking for a solution to the posed problem would arrive in an obvious manner at the claimed product.

4.2 E4 discloses a virucidal tissue product comprising at least one air dry cellulosic web containing one or more carboxylic acids and a water-soluble humectant (column 1, lines 33-36). The tissue product is made by blending the water-soluble humectant with a carboxylic acid-containing virucidal composition and applying the solubilized blend to the surface of a cellulosic web (column 1, lines 39-46). The use of the water-soluble

humectant instead of water eliminates the need for drying and provides sensory advantages, such as imparting a lotioned surface feel to the web (column 2, lines 3-13). Examples of suitable water-soluble humectants include polyglycols, propylene glycol and glycerol (column 2, lines 24-27). The preferred carboxylic acids are citric acid and malic acid (column 3, lines 32-33). The virucidal activity is due to the carboxylic acid (column 3, lines 36-37).

4.3 In view of this disclosure, the skilled person, looking for a solution to the posed problem, would include the two essential ingredients of the compositions of E4 (including in particular citric acid as one of the preferred acids), which are meant to add anti-viral properties to a lotioned tissue paper, to the lotion composition of E3, which already contains both some of the water-soluble humectants and pharmaceutical actives as optional ingredients, and obtain in that way the product of granted claim 1 of the patent in suit without exercising any inventive activity. As to the quantities of the added ingredients, since very broad ranges are indicated in the claim and no weight is given to those ranges, they also would result from the routine activity of the skilled person who proceeds to combine the composition of E3 with the essential ingredients of E4.

4.4 For these reasons, the tissue paper of claim 1 of the granted patent does not involve the required inventive step.

Auxiliary requests

5. The amendments to the products of claim 1 according to both auxiliary request 1 (the lotion composition is defined as "substantially anhydrous") and auxiliary request 2 (the feature "and wherein no water is intentionally added to the anti-viral composition" has been added) concern the content in water of the lotion composition and attempt to express in alternative ways the condition that the water content should be kept at very low levels, however without providing a precise delimitation.

5.1 Apart from the possible lack of clarity which results from these amendments, they do not have any bearing on the reasoning of inventive step which has been developed above for the main request, as they do not add any distinguishing feature over the prior art.

5.2 As a matter of fact, the compositions of the examples of E3 are all water free (see point 2.2.3 above) and no use of water is suggested in E4, so that the combination of the teachings of E3 and E4 would automatically result in water free lotions applied to tissue papers.

5.3 Therefore, the tissue papers according to claim 1 of both auxiliary request 1 and auxiliary request 2 do not involve an inventive step for the same reasons as detailed for the product of granted claim 1 (points 2 to 4 above).

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

S. Fabiani J. Riolo