Case Number: T 1017/06 - 3.3.06
Application Number: 01113972.2
Publication Number: 1133983
IPC: A61K 7/50
Language of the proceedings: EN
Title of invention: Self-foaming cleansing systems
Patentee: Color Access, Inc.
Opponent: KPSS-Kao Professional Salon Services GmbH
Henkel AG & Co. KGaA
Headword: Self-foaming systems(COLOR
Relevant legal provisions:
Relevant legal provisions (EPC 1973):
EPC Art. 56
Keyword: "Inventive step (all requests) - no: obvious alternative"
Decisions cited:

Catchword:
Case Number: T 1017/06 - 3.3.06

DECISION
of the Technical Board of Appeal 3.3.06
of 20 March 2009

Appellant I:             Henkel AG & Co. KGaA
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Representative:         -

Appellant II:           Color Access, Inc.
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Other Party:            KPSS-Kao Professional Salon Services GmbH
(Opponent I)            Pfungstädterstrasse 92-100
                        D-64297 Darmstadt (DE)

Representative:         -

Decision under appeal:  Interlocutory decision of the Opposition
Division of the European Patent Office posted
28 June 2006 concerning maintenance of European
patent No. 1133983 in amended form.

Composition of the Board:
Chairman:               P.-P. Bracke
Members:                P. Ammendola
                        A. Pignatelli
Summary of Facts and Submissions

I. This appeal is from the interlocutory decision of the Opposition Division concerning the maintenance in amended form of European patent No. 1 133 983.

II. Claims 13 and 14 of the patent as granted are independent and read:

"13. A method of cleansing the skin or the hair which comprises applying an effective amount of a cosmetic self-foaming system comprising, as separate aqueous elements, an alkali metal bicarbonate component present in an amount from 1 to 20 percent by weight and an acid component present in an amount from 1 to 20 percent by weight, said acid component being selected from the group consisting of an organic acid having a number of carbon atoms not greater than 8 and an inorganic acid, each of said components being contained in a cosmetically and/or pharmaceutically acceptable carrier, said components, when substantially simultaneously dispensed and commingled, reacting with one another to release carbon dioxide and, if any, said system comprising no greater than 10% surfactant by weight of the total composition."

"14. A method of cooling the skin which comprises applying an effective amount of a cosmetic self-foaming system comprising, as separate aqueous elements, an alkali metal bicarbonate component present in an amount from 1 to 20 percent by weight and an acid component present in an amount
from 1 to 20 percent by weight, said acid component being selected from the group consisting of an organic acid having a number of carbon atoms not greater than 8 and an inorganic acid, each of said components being contained in a cosmetically and/or pharmaceutically acceptable carrier, said components, when substantially simultaneously dispensed and commingled, reacting with one another to release carbon dioxide."

Hereinafter the subject-matters of these claims are respectively indicated as the patented cleansing method and the patented cooling method.

III. Two oppositions were filed against the patent on the grounds of, inter alia, lack of novelty and of inventive step (Article 100(a) EPC and Articles 52(1), 54 and 56 EPC).

During the opposition proceedings the Opponents had referred, inter alia, to the documents:

(8) EP-A-0 745 665

and


IV. The Opposition Division found in its decision that the patent as granted lacked novelty but that its amended version on the basis of the set of claims according to the first auxiliary request of the Patent Proprietor complied with the EPC (hereinafter this amended version of the patent is indicated as the patent as maintained).
Claims 13 and 14 of the patent as maintained are identical to the corresponding granted claims reported above.

V. Opponent II (hereinafter Appellant I) and the Patent Proprietor (hereinafter Appellant II) appealed against this decision.

VI. Appellant I filed several documents with the grounds of appeal and a letter dated 28 February 2007. Appellant II filed with a letter dated 18 April 2007, inter alia, sets of amended claims labelled as subsidiary requests 2 to 4.

Claim 1 of subsidiary request 2 differs from claim 13 as granted only in that the wording "from 1 to 20 percent by weight" has been replaced in the two relevant passages by "from about 1 to about 20 percent by weight".

Claim 1 of subsidiary request 3 is identical to that of subsidiary request 2.

Claim 1 of subsidiary request 4 differs from claim 14 as granted only in that the wording "from 1 to 20 percent by weight" has been replaced in the two relevant passages by "from about 1 to about 20 percent by weight".

VII. Oral proceedings took place before the Board in the presence of both Appellants and of Opponent I, who is
party as of right to these proceedings (Article 107 EPC).

VIII. Appellant I and Opponent I, besides disputing the novelty of the patented cleansing and cooling methods, maintained in writing and orally, inter alia, that these methods were obvious when starting from the prior art disclosed in document (8), for the following reasons.

The patent in suit contained only unproven and vague allegations as to the advantageous technical effects of such methods.

Moreover, while it was possible that the patented cleansing method was, as alleged in the patent in suit, milder to the lipid barrier of the skin than the application of any hypothetical foaming composition containing 40% to 60% by weight of surfactant, no similar advantage was plausible in respect of the application of the conventional cleansing foaming compositions of the prior art, such as e.g. those of documents (8) or (12), wherein the amount of surfactant was just above 10% or about 1% by weight.

The unproven allegations of Appellant II that the composition disclosed in document (8) peeled or etched the skin and, thus, provided a "hot" feeling, were not credible either. Indeed, such prior art composition contained an excess of citric acid, which was also possible in the self-foaming system of the patented cleansing and cooling methods of the invention. Moreover, the amount of surfactant present in such prior art composition was just above the upper limit of
10\% by weight allowed by the claimed methods. Finally, the patent in suit contained not only no proof but not even an allegation that the aimed level of mildness to the skin was achievable by compositions with not more than 10\% of surfactants only or only when the amounts of acid and bicarbonate were within the preferred ratio range of from 1:0.5 to 0.5:1 (a range that was, however, not required in the claims defining the patented cleansing and cooling methods).

Similarly, the definition of the patented cleansing method imposed no restriction as to the kind of cosmetic cleansing composition that could be used therein or as to the nature of the steps following or preceding the application of the self-foaming system. Thus, the patented cleansing method allowed for the possible presence of e.g. abrasive ingredients such as those normally used in compositions for "peeling" the skin, as well as for the possibility of conventional multi-step application sequences, such as those involved in "gommage".

A cooling or refreshing sensation was already predictable for the self-foaming system of document (8). Indeed, the carbonate effervescence necessarily removed some heat, due to the passage of the carbon dioxide initially formed within the aqueous phase into the atmosphere.

Therefore, document (8) already disclosed a system necessarily producing all the advantageous technical effects possibly achieved by the patented cleansing method. Hence, this latter just provided an alternative to the prior art. No inventive ingenuity was required
to arrive at such alternative, since the possibility of slightly reducing the amount of surfactant to less than the amount disclosed in the sole example of document (8) was obvious in view of an explicit teaching in the same document and/or in view of the low amount of surfactants present in other similar foaming cleansing compositions, such as those disclosed, *inter alia*, in document (12).

Document (8) also represented a reasonable starting point for the inventive step assessment in respect of the patented cooling method. This prior art alone rendered this latter obvious, because the skilled person would foresee that the application of the system disclosed in this citation would inevitably result in some cooling or refreshing of the skin.

IX. Appellant II disputed the admissibility of the new documents filed by Appellant I during the appeal proceedings and argued that the patented cleansing and cooling methods were novel.

It presented in writing and orally the following arguments in reply to the objection of the other parties that these patented methods were obvious when starting from the prior art disclosed in document (8).

The technical effects mentioned in the patent in suit originated from the effervescence occurring during the application of the self-foaming system of the invention on the skin or hair. This disclosure was plausible for the skilled person, and the other parties had provided no evidence to the contrary.
Hence, the patented cleansing method used a self-foaming system that credibly provided cooling and cleansing effects without affecting the delicate lipid barrier of the skin.

Document (8) only disclosed a self-foaming cleansing composition that would be manifestly aggressive to the skin due to the presence of a large excess of citric acid and of an amount of surfactant of more than 11% by weight. This would result in etching of the skin and, consequently, in a "hot" feeling. On the contrary, at least the preferred embodiments of the patented cleansing method wherein the ratio between the amounts of acid and bicarbonate ingredients preferably ranged between 1:0.5 and 0.5:1, would certainly be more gentle to the skin lipid barrier not only because of the lower amount of surfactant but also because in these embodiments no large excess of citric acid was present. Therefore, document (8) would not be considered as a reasonable starting point by the skilled person aiming at the advantageous technical effects provided by the patented cleansing method.

Finally, neither document (8) nor any of the other available citations disclosed the cleansing and cooling effect provided by the carbon dioxide generated in situ. In particular, the effervescence produced by the self-foaming system of the invention could not be simply equated to the endothermic release of the carbon dioxide dissolved in the aqueous phase because the formation of carbon dioxide could possibly also involve release of heat, as in the case of the exothermic reaction used for producing carbon dioxide from carbon,
wherein the heat emissions occurring during the reaction are superior to the heat required for compensating the enthalpy of evaporation of the carbon dioxide.

Hence, the advantages of the patented cleansing method were not obvious even for the skilled person arbitrarily starting from document (8).

A similar reasoning applied to the non-obviousness of the patented cooling method, since document (8) did not mention or imply cooling of the skin.

X. 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 in the granted form, as subsidiary request 1 that the appeal of Appellant I be dismissed or that the patent be maintained on the basis of the set of claims according to any of the subsidiary requests 2 to 4 as filed under cover of the letter dated 18 April 2007. At the end of the oral proceedings before the Board Appellant I also requested the possibility of filing additional requests.

Opponent I requested the dismissal of the appeal of Appellant II and, jointly with the request of Appellant I, that the decision under appeal be set aside and the patent be revoked.
Reasons for the decision

Patent as granted (main request of Appellant II)

1. Inventive step assessment for the subject-matter of claim 13 as granted (Article 56 EPC 1973)

1.1 This claim defines a method for cleansing the skin or hair characterised by the application of a self-foaming system that contains two distinct aqueous elements and, optionally, a surfactant in an amount of not greater than 10% by weight, whereby these two aqueous elements comprise respectively 1 to 20% by weight of a bicarbonate and 1 to 20% by weight of an acid and are simultaneously dispensed and commingled (see section II of the Facts and Submissions above).

The Board notes that the patent in suit, after having acknowledged in paragraphs [0002] and [0004] that a refreshing feeling is experienced either when using a bubbly foam or from the "physiological cooling" of the skin obtained in the prior art by means of low volatile compounds such as menthol, states in paragraph [0005] that a cleansing composition "feels" like cleaning deeply if the cleanser product is cool, refreshing and tingly or bubbly during its use, and that the self-foaming system of the invention:

i) "produces a cooling sensation",

ii) "cleans deeply and "feels" like it cleans deeply",

and
iii) "does not interfere with the delicate lipid barrier of the skin".

The patent in suit then mentions in paragraph [0025] that the carbon dioxide has itself cleansing properties and, thus, contributes to the cleaning effect "ii)".

In respect of effect "iii)", it is noted that paragraph [0008] describes it as the quality of being "gentler to the lipid barrier of the skin than a traditional cleanser containing a large percentage of surfactants". The same concept is further clarified in paragraph [0025] where it is stated that "Typically, a foaming product uses about 40 to 60% surfactant by weight of the total composition. But, the systems of the present invention provide self-foaming action using considerably less than that amount, i.e. less than 10%.".

The patent in suit contains just one example of the self-foaming system of the invention and no further, even indirect indication of whether, and if so, how the exemplified system has been applied or otherwise tested.

1.2 The Board finds these definitions of the aimed effects to be vague.

In particular, from the patent as a whole it can only be deduced that cooling effect "i)" is (directly or indirectly) due to the carbonate effervescence, but it cannot be determined whether the achieved "cooling sensation" results from a substantial removal of heat.
from the skin or is one of those sensations that are not necessarily associated with an endothermic process, such as the "refreshing feeling" that, as acknowledged in paragraph [0002], is normally detected whenever cleaning the skin with a bubbly foam, or the "physiological cooling" conventionally obtained using low volatile compounds such as menthol described in paragraph [0004]. Indeed, the patent description gives rather contradictory indications in these respects: while paragraph [0025] appears to indicate that the carbon dioxide replaces the surfactant also in its cooling aspect, paragraph [0030] seems to imply some real decrease in the skin temperature, and paragraph [0033] discloses the use of low volatile compounds such as menthol for enhancing the "cooling effect".

In respect of the cleaning effect "ii)" Appellant II has considered particularly relevant that the patent in suit discloses that the carbon dioxide itself has cleansing properties. The Board notes, however, that this disclosure of the patent only implies that the level of cleansing achieved by the invention may be expected to be certainly superior to that already achieved by compositions differing from those of the invention exclusively due to the absence of the carbon dioxide effervescence. It does not imply, however, any advantage not only over compositions wherein carbon dioxide is already present but also over foams not containing carbon dioxide but based e.g. on a more effective surfactant. Hence, the sole sound conclusion derivable from the patent in suit as to the nature of cleaning effect "ii)" is that the patented cleansing method reasonably aims at achieving a satisfactory cleaning of skin and hair.
In respect of the aimed mildness to the skin lipid barrier, the Board concurs with Appellant I that the sole clear meaning of the qualitative technical effect "iii)" is that derivable from paragraph [0025], i.e. that the patented cleansing method certainly aims at achieving a level of harshness to the skin that is appreciably inferior to that possibly displayed by similar foaming compositions containing surfactant amounts of 40% to 60% by weight. This conclusion is also consistent with the fact that claim 13 limits the amount of surfactant to a value well below 40% by weight but does not impose any limitation on the nature of the surfactant or on the nature or the amount of the other possible non-effervescent conventional components of skin and hair cleansing compositions, even though the tolerance to the skin of the compositions used for cleansing is well known to depend appreciably on such compositional characteristics as well.

Hence, in the opinion of the Board, the skilled reader of the patent in suit can only conclude that the three aimed effects defined therein consist vaguely in:

i) producing some sort of cooling or refreshing sensation,

ii) providing acceptable cleaning of the skin or hair,

and

iii) being less harmful to the skin lipid barrier than similar compositions containing 40% or more by weight of surfactant.
1.3 It is established jurisprudence of the Boards of Appeal that the reasonable starting point for assessing inventive step is normally a prior art document disclosing subject-matter conceived for the same purpose or aiming at the same objective as the claimed invention and having the most relevant technical features in common, i.e. requiring the minimum of structural modifications.

1.4 It is undisputed that none of the available documents belonging to the field of foaming cosmetic compositions mentions explicitly all three aimed effects "i)" to "iii)".

1.4.1 However, the Board notes that document (8) discloses a two-component skin cleansing composition suitable as a shower gel, i.e. a composition which is expressly conceived for the purpose of cleaning the skin (i.e. the aimed effect "ii")}, comprising acid and carbonate materials that do not affect the skin and that, when mixed and dispensed, generate a neutral, dense creamy foam (see document (8) column 1, lines 3 to 5, 34 to 44 and 53 to 58; column 2, lines 13 to 17; column 3, lines 16 to 19). In respect of the chemical composition of the sole example disclosed in this citation it is undisputed that its only possible interpretation is that the distinct components 1 and 2 should be simultaneously dispensed in comparable amounts and, therefore, that the resulting self-foaming mixture must reasonably comprise about 15% by weight of citric acid, about 2.5 % by weight of sodium bicarbonate and about 11.2% by weight of surfactants.
In the opinion of the Board any skilled chemistry practitioner aiming at some cooling/refreshing effect would immediately recognise that the mixing of the two aqueous components of the composition exemplified in document (8) produces carbon dioxide initially in the aqueous phase, i.e. in a phase in which, as also explicitly recalled in paragraph [0024] of the patent in suit and undisputed by Appellant II, the just formed carbon dioxide is well known to possess an appreciable solubility. Therefore, and since, as convincingly argued by Appellant I and not disputed by Appellant II, it is evident to any skilled chemist that the release into the atmosphere of carbon dioxide dissolved in an aqueous phase is associated with removal of heat from that aqueous phase, the effervescence described in document (8) implies necessarily some heat removal from the surrounding environment and, thus also from the skin on which it is applied.

In addition, in so far as the aimed cooling sensation may as well just consist in a "refreshing feeling", this latter is also self-evident to the skilled reader of document (8) because, as also explicitly acknowledged in paragraph [0002] of the patent in suit, it is well known that bubbly cleansing foams produce such a feeling.

Finally, the same citation explicitly qualifies the effervescent material used therein as not affecting the skin, and the sole exemplified composition comprises an amount of surfactants that is much lower than 40% by weight. Hence, such composition must apparently be also milder to the skin lipid barrier than any foaming composition containing more than 40% by weight of
surfactants and, thus, must also result in the advantageous technical effect "iii)" aimed at by the patented cleansing method.

1.4.2 Therefore, the Board concludes that document (8) implicitly discloses a cosmetic cleansing method for the skin providing all three aimed effects identified above and, thus, concurs with Appellant I and Opponent I that the foaming cleansing compositions disclosed in the example of document (8) represent a reasonable starting point for the inventive step assessment of the patented cleansing method.

1.4.3 Appellant II has disputed this finding by arguing that the formation of carbon dioxide, such as in the case of its synthesis starting from carbon, might as well release more heat than that required for compensating the enthalpy of evaporation of such gas. Hence, it would not be evident to the skilled reader of document (8) that the use of the cleansing composition disclosed therein would produce sufficient cooling to be detectable by the sensory cells of the skin or any cooling at all.

Moreover, the skilled reader of such citation would immediately realize that the composition of this prior art would be too aggressive to the skin, because such composition contains not only a large amount of surfactant but also a large excess of citric acid and, thus, its application necessarily results in etching of the skin and, thus, in a "hot" feeling.

On the contrary, at least the preferred embodiments of the patented cleansing method, i.e. those wherein the
ratio between the amounts of acid and bicarbonate ingredients ranges between 1:0.5 and 0.5:1, would certainly be more gentle to the skin lipid barrier not only because of the lower amount of surfactant but also because in these embodiments no such excess of citric acid would be present.

1.4.4 The Board notes that the argument of Appellant II based on the preferred amount ratio that is not given in claim 13 as granted is manifestly irrelevant in the present case. Since such claim does not require the effervescent ingredients to be present in any specific ratio, the patented cleansing method allows for an excess of citric acid even greater than that used in the example of document (8).

Furthermore, the allegation that the formation of carbonate effervescence produced by the reaction of the bicarbonate and citric acid in water could as well proceed exothermally is deprived of any relevant supporting evidence or plausible explanation. The cited synthetic exothermic reaction used to produce carbon dioxide from carbon industrially is irrelevant in this respect since such reaction is totally different from that occurring when commingling and applying the self-foaming system according to document (8). In respect of the possibility that no cooling sensation could be detected by the skin cells upon using the shower gel of document (8), the Board wishes to stress that the claim defining the patented cleansing method also specifies only the amount of the effervescent ingredients in the self-foaming system, but not, for instance, the dilution with water occurring during the actual application of the method e.g. during a shower or bath.
or the washing of hands or face according to such method. Hence, it is apparent that in the patented method, too, the cooling effect might possibly be extremely low or hardly perceivable.

Finally, the allegation of Appellant II that the composition of document (8) would appear to be evidently harsh to the skin is hardly compatible with the indisputable fact that this citation stresses explicitly at column 2, lines 13 to 17, the mildness to the skin of the effervescent materials used therein. Moreover, as discussed above at point 1.2, the only clear implication of the vaguely worded technical effect "iii)" mentioned in the patent in suit is the achievement of a level of harshness to the skin that must be less than that possibly displayed by foaming compositions containing surfactant amounts of 40% or more by weight. Accordingly, the statement of Appellant II that an amount of surfactant even just above 10% by weight should be expected to result in a level of harshness to the skin greater than that aimed in the patent in suit, amounts to a new unsupported allegation that is neither self-evident for the person skilled in the art nor disclosed in the patent in suit and that is disputed by the other parties.

Incidentally, the Board considers it appropriate to mention that the allegation of Appellant II as to the greater harshness to the skin of the composition of document (8) would remain unconvincing even in the hypothetical case that the patented cleansing method was limited to the preferred 1:0.5 to 0.5:1 range for the relative amounts of acid and bicarbonate ingredients. Indeed, the patent in suit is totally
silent as to any advantage in respect of the mildness to the skin that could result from this preferred range for the effervescent ingredients. Hence, the statement that an excess of citric acid superior to that allowed by such a preferred amount range would render the composition of document (8) capable of etching the skin, also amounts to a new unsupported allegation that was not present in the patent in suit and that is disputed by the other parties.

1.5 Considering that the prior art, as represented by document (8), already achieves the three aimed effects "i)" to "iii)", the sole technical problem possibly solved by the claimed method would be the provision of an alternative to the cleansing method of the prior art.

1.6 Since the patented cleansing method differs from the use of the composition exemplified in document (8) for skin cleansing, only in the fact that in this latter the amount of surfactant is more than 10% by weight, the assessment of inventive step comes down to the question, whether the skilled person would also have reduced the amount of surfactant in this composition of the prior art in the reasonable expectation that such modification would at least not impair the cleaning and dermatological properties of such composition.

1.7 It is undisputed that document (8) itself discloses explicitly at column 2, lines 28 to 31, that the amount of surfactant may be freely varied in view of the intended purpose. Therefore, and since the composition disclosed in document (12) is also a cleansing composition for the skin based on the formation of a carbonate foam, the skilled person would, in the
opinion of the Board, have considered it obvious to replace the amount and kind of surfactant in the composition of document (8) by means of the surfactant ingredient disclosed in document (12), in the expectation that this modification would be in line with the aforementioned explicit instruction at column 2, lines 28 to 31, of document (8) as to how to realize further embodiments of the prior art. Since in the examples of document (12) the amounts of surfactant are about 1-1.5% by weight of the whole composition, the skilled person would have arrived at the patented cleansing method without exercising any inventive activity.

1.7.1 Appellant II has disputed the possibility of combining the disclosure of document (8) with that of document (12), by arguing that the composition disclosed in this latter citation would require a "gommage" and thus would be discarded by the skilled person because apparently too aggressive to the skin.

1.7.2 However, the Board must stress again that claim 13 allows for any conventional component of cosmetic cleansing compositions - of course, other than surfactant in an amount above 10% by weight - to be present in the self-foaming system of the patented cleansing method, as well as for any conventional sort of cosmetic cleansing of skin or hair, including "peeling", "gommage" etc.. Hence, the skilled person searching for a solution to the posed technical problem may take into consideration any prior art in the field of cosmetic cleansing compositions for skin and hair, including the known methods for e.g. "peeling", "gommage", etc..
1.8 Therefore the Board concludes that the subject-matter of claim 13 as granted represents an obvious alternative to the prior art, and thus, that this claim does not comply with the requirements of Article 56 EPC 1973.

2. Inventive step assessment for the subject-matter of claim 14 as granted (Article 56 EPC 1973)

2.1 This claim defines a method for cooling the skin characterised by the application of a self-foaming system that contains two distinct aqueous elements, comprising respectively 1 to 20% by weight of a bicarbonate and 1 to 20% by weight of an acid, whereby these two aqueous elements are simultaneously dispensed and commingled (see section II of the Facts and Submissions above). It is noted that such claim does not explicitly exclude the possible presence of surfactants in any amounts.

2.2 In view of the above reasoning in respect of the cooling effect of the patented cleansing method, it has become immediately apparent to the Board that even if one assumed for the sake of an argument in favour of Appellant II that the patented cooling method of claim 14 as granted is novel over the prior art, still such cooling method would necessarily lack an inventive step vis-à-vis the disclosure of document (8) for the following reasons.

2.3 Appellant II has argued that since the patented cooling method aims at providing a cooling sensation and since document (8) is silent in respect of this effect, this
latter cannot be relevant for the assessment of inventive step.

The Board notes however that, as acknowledged in paragraph [0002] of the patent in suit, it is common general knowledge that foaming cosmetic compositions provide at least a refreshing feeling and, thus, the skilled person searching for a cosmetic composition providing some cooling of the skin would have considered among others also the cleansing composition disclosed in document (8).

Since the cleansing composition disclosed in document (8) appears to the skilled reader of that document as also necessarily implying the provision of a cooling sensation to the skin (for the reason already indicated above, see point 1.4.1), the skilled person searching for a method for producing such sensation would, without exercising any inventive ingenuity, have arrived at the patented cooling method simply upon reading document (8).

2.4 Therefore the Board concludes that the subject-matter of claim 14 as granted represents an obvious solution to the technical problem of providing a method for cooling the skin and, thus, that also this claim does not comply with the requirements of Article 56 EPC 1973.

*Patent as maintained (subsidiary request 1 of Appellant II) and subsidiary requests 2 to 4 of Appellant II.*

3. Inventive step assessment for the subject-matter of claim 13 of the patent as maintained and of claim 1 of subsidiary requests 2 and 3 (Article 56 EPC 1973).
Claim 13 of the patent as maintained is identical to claim 13 as granted (see above section IV of the Facts and Submissions). Hence, subsidiary request 1 of Appellant II to dismiss the appeal of Appellant I and, thus, to maintain the patent in the form found by the Opposition Division to comply with the EPC, already fails because claim 13 of the patent as maintained lacks inventive step for the very reasons indicated at point 1 above in respect of claim 13 as granted.

Since claim 1 in each of subsidiary requests 2 and 3 is also substantially identical to claim 13 as granted (see section VI of the Facts and Submissions above), these subsidiary requests fail for the same reasons indicated at point 1 above in respect of claim 13 as granted.


Claim 1 of subsidiary request 4 is substantially identical to claim 14 as granted (see section VI of the Facts and Submissions above). Hence, even the last remaining subsidiary request of Appellant II fails for lack of inventive step of claim 1 for substantially the same reasons indicated above at point 2 for claim 14 as granted.

Further issues

Since the reasons for this decision are based on documents already considered in the decision under appeal, it has not been necessary for the Board to
decide on the admissibility of the documents cited for the first time in the appeal proceedings by Appellant I and considered as belated by Appellant II.

The request of Opponent I to join the request of Appellant I that the decision under appeal be set aside and the patent be revoked is found not admissible since Opponent I did not appeal such decision.

At the end of the oral proceedings Appellant II requested the possibility of filing additional requests. This request is refused because the Board does not see any new arguments brought forward at the hearing by the other parties by which Appellant II could have been taken by surprise.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

3. The appeal of the Appellant II is dismissed.

The Registrar:               The Chairman:

G. Rauh                        P.-P. Bracke