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**Datasheet for the decision
of 27 May 2010**

Case Number: T 1782/06 - 3.3.07

Application Number: 97202422.8

Publication Number: 0823252

IPC: A61K 7/06

Language of the proceedings: EN

Title of invention:

Hair conditioning solid

Patent Proprietors:

A- Veda Corporation

Opponents:

- 01) KPSS-Kao Professional Salon Services GmbH
02) HENKEL AG & Co. KGaA

Headword:

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Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step (yes) - Main Request"

Decisions cited:

T 0686/91

Catchword:

-



Case Number: T 1782/06 - 3.3.07

D E C I S I O N
of the Technical Board of Appeal 3.3.07
of 27 May 2010

Appellants:
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Representative: -

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 10 October 2006
rejecting the opposition filed against European
patent No. 0823252 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: S. Perryman
Members: G. Santavicca
D. Semino

Summary of Facts and Submissions

I. The appeal of opponents 02 lies from the interlocutory decision of the Opposition Division maintaining European patent 0 823 252 (application N° 97 202 422.8), according to which, account being taken of the amendments made by the proprietors in Claims 1 to 49 according to the Main Request submitted at the oral proceedings held on 18 July 2006 and to a description adapted thereto, the patent and the invention to which it relates were found to meet the requirements of the EPC.

II. Claims 1, 25, 34, 36, 38, 43 and 46 of the Main Request read as follows:

"1. A cosmetic hair conditioning composition comprising an effective amount of a film forming polymer solubilized in a lower alcohol and/or water containing cosmetically acceptable vehicle gelled by a fatty acid soap, wherein the composition is in the form of a solid stick, and comprises the following composition:

- (a) 1 to 15 wt.% of the film forming polymer;
- (b) 3 to 10 wt.% of a fatty acid soap;
- (c) 0 to 60 wt.% of a polyhydric alcohol;
- (d) 15 to 60 wt.% of a nonionic component selected from C₂-C₂₀ alkanol alkoxyates and caprylic/capric polyol esters; and
- (e) 10 to 50 wt.% of water, a lower alcohol, or mixtures thereof."

"25. Cosmetic hair conditioning composition comprising:

- (a) 5 to 30 wt.% water;

- (b) 0 to 60 wt.% of an aliphatic polyhydric alcohol having from 2 to 3 carbon atoms and from 2 to 3 hydroxyl groups;
- (c) 20 to 50 wt.% of a nonionic compound selected from C₁₂-C₁₈ alcohol alkoxyates, PEG(1-10) caprylic/capric triglycerides, or mixtures thereof;
- (d) 1 to 10 wt.% of a film forming polymer;
- (e) 3 to 7 wt.% of a sugar;
- (f) 3 to 10 wt.% of a fatty acid soap; and
- (g) 10 to 15 wt.% of an alcohol selected from ethanol, isopropyl alcohol or mixtures thereof; wherein the composition is in the form of a solid stick."

"34. A cosmetic hair conditioning composition comprising:

- (a) 20 to 30 wt.% of water;
- (b) 3 to 10 wt.% of sodium stearate;
- (c) 15 to 35 wt.% of PEG-6 caprylic/capric triglyceride;
- (d) 3 to 10 wt.% of a sugar;
- (e) 15 to 25 wt.% of glycerin;
- (f) 8 to 12 wt.% of vinylpyrrolidone/vinyl acetate copolymer; and
- (g) 8 to 15 wt.% of ethanol;

wherein the composition is in the form of a solid stick."

"36. A cosmetic hair conditioning composition comprising:

- (a) 20 to 30 wt.% of water;
- (b) 3 to 10 wt.% of sodium stearate;
- (c) 25 to 40 wt.% of PEG-6 caprylic/capric triglyceride;
- (d) 3 to 7 wt.% of a sugar;

- (e) 8 to 12 wt.% of vinylpyrrolidone/vinyl acetate copolymer; and
 - (f) 8 to 15 wt.% of ethanol;
- wherein the composition is in the form of a solid stick."

"38. A cosmetic hair conditioning device comprising:

- (a) a cosmetic hair conditioning composition according to any one of claims 1-37; and
- (b) a holder for the cosmetic hair conditioning composition."

"43. A method of conditioning hair comprising applying a cosmetic hair conditioning composition according to any one of claims 1-37 to hair so that it is conditioned."

"46. A method of styling hair comprising applying a cosmetic hair conditioning composition according to any one of claims 1-37 to hair so that it is styled."

III. Two oppositions had been filed, seeking revocation of the patent in its entirety, based on the grounds that the claimed subject-matter was an aesthetic creation (Article 52(2)(b)) (opponents 01) or lacked novelty and an inventive step (Article 100(a) EPC), *inter alia* having regard to the following documents:

- D1: EP-A-0 222 525;
- D3: EP-A-0 405 664;
- D5: WO-A-96/09031;
- D6: WO-A-93/24105;
- D7: US-A-4 650 670;
- D8: US-A-4 344 446;
- D9: WO-A-95/34271;

D10: WO-A-92/07545;

IV. The decision under appeal, as regards the Main Request, can be summarised as follows:

- (a) The claimed subject-matter was a composition formulated as a solid stick to solve a technical problem, hence not an aesthetic creation as defined in Article 52(2)(b) EPC.
- (b) The amended claims complied with Article 123(2)(3) EPC.
- (c) Since the alleged clarity problems were already present in the claims as granted, i.e. did not arise out of the amendments made in opposition proceedings, the objections raised were not admissible.
- (d) As far as novelty was concerned, the claimed subject-matter differed from the prior art in the nature and/or concentration of the nonionic compound and/or in the concentration of the fatty acid soap, if present in the known compositions.
- (e) As regards inventive step, the closest prior art according to the problem solution approach was that described in any of documents D8, D10 or D0 (US-A-5 368 850, acknowledged as the closest prior document in the examination proceedings and in the patent in suit, (re)invoked by the proprietors at the oral proceedings before the opposition division, as apparent from the minutes).
- (f) The problem to be solved was to provide a hair conditioning composition in a new form. The proposed solution was a composition in the form of a solid stick with defined amounts of film-forming polymer, fatty acid soap and non-ionic component.

As shown by the examples, the problem had been solved.

- (g) There was no direct and unambiguous teaching, let alone any suggestion either, in the prior art that a combination of a film forming polymer as used in hair conditioners with a substantial amount of non-ionic emulsifier would result in the desired hair conditioner in the solid stick form.
- (h) Hence the claimed subject-matter was not obvious and involved an inventive step.

V. In their statement setting out the grounds of appeal, the appellants enclosed a copy of a new document:
D12: Cosmetics & Toiletries, Vol. 105, April 1990,
Seite 76, Rezeptur "Transparent Deodorant Stick (Hüls)".

VI. In their response to the statement setting out the grounds of appeal, the proprietors (respondents) defended the amended patent as maintained by the opposition division.

VII. In a communication dated 22 January 2010, in preparation for the oral proceedings, the Board *inter alia* indicated that since the decision under appeal had been contested only as regards the choice of the closest prior art and the assessment of inventive step, for the Main Request, inventive step was the only issue to be debated.

VIII. In their response to the communication of the Board (letter of 30 March 2010), the proprietors submitted 4 sets of amended claims as Auxiliary Requests A-D.

- IX. Neither the appellants (opponents 02) nor opponents 01 (party as of right) have submitted any response to the communication of the Board.
- X. Oral proceedings were held on 27 May 2010. At the end of the proceedings, the decision was announced.
- XI. The opponents (appellants and party as of right) have essentially argued as follows:

Main Request

Procedural matters

D12, which disclosed that soap based stable and transparent sticks could contain a high amount of nonionic solubilizer, was relevant to inventive step and should be admitted.

Novelty

No objection against novelty was raised.

Closest prior art

D5 and D6, which respectively described colorant or deodorant sticks, dealt with stick formulations. As to D5, the alleged necessity of washing out the product applied to the hair was not a requirement of the claims. As regards D6, its examples 10 to 14 illustrated stick compositions containing all of the claimed components but a lower amount of nonionics.

Hence, both D5 and D6 were suitable starting points for assessing the presence of an inventive step.

Problem and solution

The claimed composition was not limited to hair styling, as argued by the proprietor, and was suitable for conditioning as well. Moreover, Claim 1 concerned a product and not an use, so that the compositional features were more important than the intended use. The sought-for styling properties were indeed attained by using film forming polymers, which were suitable for conditioning as well. The alleged advantages over the prior art, such as the absence of any bottles and liquids, hence an easier portability, were not acknowledged as such at the priority date. Hence, in the decision under appeal, the problem had been formulated too ambitiously. The skilled person aiming at going away from liquid hair rinses would inevitably arrive at solid compositions. Apart from those solid compositions which were clearly not appropriate, such as bath salts, sticks were both appropriate and well known, as acknowledged in the patent in suit itself. A less ambitious formulation of the problem, e.g. an adaptation of known solid compositions, implied that the offered form of the composition, i.e. "solid stick", was not part of the solution but rather of the problem formulation. This was in line with the case law of the German Supreme Court (BGH) [two decisions were cited: BGH X ZR 124/88, "Falzmaschine", of 22 May 1990 "; and, BGH Xa ZR 22/06 , Dreinahtschlauchfolienbeutel", of 30 July 2009], according to which a statement of purpose (Zweckangabe) and/or a definition of a result

to be achieved belonged to the formulation of the problem rather than to the solution.

Hence, having regard to D5 and D6, the solved problem was the provision of alternative conditioning compositions in form of a stick.

Claims 1, 25 and 34, claiming a stick per se, confirmed the less ambitious formulation of the problem.

Obviousness

In general, the sticks disclosed in any of D5 and D6 were suitable for application to the hair. Film forming polymers were suitable for conditioning and were or could be contained in those sticks as well.

As to D5, it taught that the addition of sodium stearate and a polyol was suitable for producing a colouring shampoo in stick form. D5 did not mention any styling effect. However, the skilled person aiming at expanding the application of the colouring shampoo to styling would obviously also include a film forming polymer. That it was possible to include a film forming polymer in a solid stick made of stearate and polyol was known from D6. Hence, the combination of D5 and D6 rendered obvious the claimed subject-matter.

As regards the sticks disclosed by D6, they contained all of the claimed features except for the amount of nonionics. The nonionics contained in the compositions of D6 had the function of a solubilizer. The increase of the amount of a solubilizer, as necessary, in a composition was a routine measure. Stick compositions

containing higher amounts of nonionics were known from D12. Hence, the increase of the amount of the nonionic solubilizer used in the compositions illustrated by D6, either per se or as result of the combination of D6 and D12 obviously led to the claimed subject-matter.

Since the claimed compositions might have cleaning properties, D8, which disclosed compositions for cleaning and conditioning scalp and hair, was another suitable starting point for assessing inventive step. In particular, the stick like scalp cleanser of D8 did not comprise a film forming polymer and the amount of ethoxylated fatty alcohol was low. Hence, the problem solved was the provision of an alternative composition. The film forming polymer was broadly defined in the claims of the patent in suit. D1 and D3 showed that cationic polymers were used in solid soap cleansing preparations. Hence, the scalp cleansing stick of D8 could be adapted, in particular to include cationic polymers, which were also known to be conditioning agents. Finally, it was not true that the scalp stick only contacted the scalp, as it was inevitable that also the hair would be touched, thus treated. The claimed composition was thus obvious.

XII. The respondents (patent proprietors) have essentially countered as follows:

Main Request

Procedural matters

D12 was late filed, incomplete and dealt with antiperspirants, i.e. was clearly not relevant, so that it should not be admitted into the proceedings.

Novelty

The claimed subject-matter was novel.

Closest prior art

Since the invention had to do with hair styling and conditioning, antiperspirants and soap bars, which belonged to different technical fields, could be taken as closest prior art only on the basis of ex-post facto considerations. No user would apply products such as antiperspirants and soap bars on their hair for conditioning, as they might irritate the scalp. The opponents themselves acknowledged that the claimed uses were not disclosed in e.g. D5. Hence, the choice of the closest prior art should be based on a similar use rather than on a structural similarity only.

In particular, D5 disclosed a use comprising washing out the applied components. However, no user would consider washing out the components applied for styling. Hence, D5 was not the closest prior art document.

As to D6, it concerned an antiperspirant stick, with no suggestion that it could be used for hair care. If put on the hair, it would leave a white residue, which then

would break down in flakes. Hence, no person would contemplate using the stick of D6 on the hair.

It was the same with the product of D7. And D9 disclosed a liquid hair cleaning agent, hence it did not concern a similar purpose.

Instead, any of D8, in particular its liquid shampoo, not the scalp stick which should not contact the hair, D10, which disclosed an aerosol hair spray for fixing hair and thus concerned a use similar to that of the claimed composition, and D0, which disclosed a liquid hair composition for conditioning and styling, could be considered as closest prior art document.

Among the compositions of D8 (shampoo composition), D10 (aerosol spray) and D0 (hair conditioning/styling composition), that of D0 had the most structural features in common with that defined in Claim 1 and required a minimum of modifications, so that it could be considered as the closest prior art.

Problem and solution

Having regard to D0, the problem solved was the provision of hair conditioners in a new form and having the advantages specified in the patent in suit. In particular, in the field of hair styling and conditioning, which was very competitive, the claimed product was an important progress, a unique hair product in a form which did not exist at the priority date, having clearly advantages, such as the absence of bottles and liquids. Furthermore, the claimed composition did more than a conditioner, as it imparted

shine, conditioning and hold properties. Finally, that product could be applied on wet hair, hence no need to wait for dried hair, thus saving time.

Obviousness

None of the cited documents taught to move from a liquid hair conditioning/styling composition as that of D0 to a composition in form of a stick. Furthermore, the claimed solid compositions were based on a combination of film forming polymers and nonionics, which contained a higher amount of plasticizers for the film forming polymer. It was not obvious to include more plasticizer, as it was considered that more plasticizer would lead to loss of the hold. Therefore, the claimed composition was not obvious.

If, however, D6 was considered as the closest prior art document, the skilled person would still not find any hint at the claimed composition. In D6 the amount of steareth-2 was limited to a maximum of 10%, which was less than the minimum amount required by Claim 1 for the nonionics. In the claimed composition, the higher amount of nonionics aimed at plasticizing the resin, which effect was not known either from D6. Hence, the claimed composition was not obvious having regard to D6.

As to D5, apart from requiring a washing step, it did not disclose the correct amount of nonionics.

Consequently, also the combination of D5 and D6, if it were envisaged by the skilled person, would not lead to the nonionics content of the claimed subject-matter.

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

XIV. The respondents (patent proprietors) requested that the appeal be dismissed, alternatively that the decision under appeal be set aside and the patent be maintained on the basis of one of Auxiliary Requests A-D submitted with letter dated 30 March 2010.

Reasons for the Decision

1. The appeal is admissible.

Main Request

Novelty

2. Novelty of the claimed subject-matter is not disputed, and need not be addressed in detail either, as the distinguishing features from the closest prior art will become apparent from the assessment of inventive step (*infra*).

Closest prior art

3. The patent in suit concerns hair conditioning compositions in the form of solids and methods of conditioning and styling hair.

3.1 Products and methods for conditioning and styling hair are known from D0, D8 and D10, which have been considered as the documents describing the closest

prior art by the opposition division and by the respondent proprietors. Instead, the opponents have considered D5 and D6 as the documents describing the closest prior art. Hence, it has to be decided which of the invoked documents describes the closest prior art for the assessment of inventive step according to the problem solution approach (Case Law of the Boards of Appeal of the EPO, 5th edition 2006, I.D.3).

- 3.1.1 D5 discloses a solid wash resistant hair colorant stick composition comprising an intimate admixture of a wash resistant hair dye with a physiologically acceptable compatible solid base having a hardness which is sufficiently high to provide substantial dimensional stability under light to moderate manual pressure under ambient temperatures and having a composition with a combination of hardness, and water solubility characteristics for allowing easy gliding of the stick over a mass of damp hair and transfer of stick material thereto under light to moderate manual pressure in a generally smooth and controlled manner substantially without fracture of the stick or substantially discontinuous deposition of material (Claim 1).

The composition can comprise hair conditioning agents such as polyquaternium compounds and/or enhancing agents such as dimethicone (dimethyl polysiloxane) to improve shine in the hair and the vibrancy of the colouring thereof (page 11, lines 16-20). Hence, D5 discloses cosmetic hair compositions in the form of a solid stick, which can be conditioning.

The solid base can comprise a water soluble salt of a higher alkyl carboxylic fatty acid (Claim 5), wherein

the acid can be selected from palmitic, oleic and stearic acids (Claim 6), preferably stearic acid (Claim 7). In particular, a salt from a strong alkali can be used, which salt has a pH in aqueous solution of from 8 to 10 (Claim 8), such as a salt selected from an ammonium salt and an alkali metal salt (Claim 9). The salt of the acid can constitute from 5 to 30% w/w of the base (Claim 10). Hence, D5 discloses feature (b) of Claim 1.

The hardness control agent can comprise a substantially non-volatile alcohol or derivative thereof (Claim 11), such as a glycol (Claim 14). The hardness control agent can constitute from 3 to 30% w/w of the composition (Claim 15). Hence, D5 also discloses feature (c) of Claim 1.

The composition can include water (Claim 20), preferably from 10 to 75 wt.% (page 7, lines 6-10). This amounts to a disclosure of feature (e) of Claim 1.

The composition can contain thickening agents, such as chemically modified cellulose polymers e.g. CelloTM 940 and sodium carboxymethylcellulose (page 11, first three lines; Example 1), or Natrosol 250 HR (Example 3). These chemically modified cellulose polymers are encompassed by Claim 18 of the patent in suit. However, D5 discloses that the cellulose polymers fulfil the function of thickening agents (page 11, first three lines and Example 1), not that of a film forming agent.

The stick composition illustrated in Example 1 (pages 12 and 13) comprises the chemically modified cellulose polymer CelloTM 940, sodium stearate, water, glycerol

or butylene glycol. The stick composition illustrated by Example 3 contains water, sodium stearate and Natrosol HR 250 (chemically modified cellulose polymer). However, the cellulose polymers CellowTM 940 and Natrosol 250 HR are used in amounts which are below 1 wt.%, whereby sodium stearate can be above 10 wt.%. These distinctions were acknowledged by the appellants in their statement setting out the grounds of appeal (page 4/11).

D5 also discloses a method of dyeing hair comprising the steps of:

wetting the hair;

drawing a stick composition across said hair under light to moderate manual pressure so as to transfer material from the stick composition on to the hair;

rubbing the said material into the wetted hair;

allowing the dye from said composition to penetrate the hairs; and washing residual material out of the hair (Claim 25).

D5 relates to long lasting hair dye compositions, in particular to their presentation in solid stick form (page 1, lines 1-3). The object of D5 is a stick having a sufficiently high hardness so as to be substantially dimensionally stable under light to moderate pressure, while providing easy gliding and smooth and controlled transfer of the stick material on the damp hair, so as to dye the hair with little risk of dye spreading onto the user's cloth with considerable control over colour intensity and distribution (page 3, first paragraph).

3.1.2 D6 discloses a topical antiperspirant composition consisting essentially of an effective amount of a non-

toxic water insoluble occlusive film-forming antiperspirant polymer in a topically-acceptable non-toxic medium (Claim 1).

The polymer can be in solution or dispersion in said medium (Claim 2), which can be a non-toxic topically-acceptable alcohol or ketone (Claim 4).

The medium can act as a solvent for the polymer, which evaporates after application to leave a film of the polymer (Claim 3), and can be selected from lower-aliphatic alcohols and ketones (Claim 5).

The composition can include a topically-acceptable carrier (Claim 7), can comprise a vinyl or acrylic copolymer and can be in stick form (Claim 8), whereby the polymer can be comprised between about 5% and about 40% by weight (Claim 14).

The polymer can comprise an octylacrylamides/acrylates copolymer alone or in combination with a PVP/Eicosene copolymer (Claim 18), or a vinyl acetate/butyl maleate/isobornyl acrylates copolymer alone or in combination with a waterproofing agent (Claim 19), or a vinyl acetate/butyl maleate/isobornyl acrylates copolymer alone or in combination with a PVP/linear alphaolefin copolymer (Claim 20), or vinyl acetate/butyl maleate/isobornyl acrylates copolymer alone or in combination with a PVP/Eicosene copolymer (Claim 21).

Examples 10 to 14 of D6 illustrate antiperspirant compositions including, in a carrier of ethyl alcohol (32 or 39.5wt.%), 9 or 7 wt.% sodium stearate, 7.5 wt.% of an acrylates/ t-octylpropeneamide copolymer

(Dermacryl 79) or of an octylacrylamide/acrylates/butylaminoethyl methacrylate copolymer (Amphomer LV 71), or 15 wt.% of a copolymer of vinyl acetate/butyl maleate/isobornyl acrylate (Advantage CP), as well as 8.5 wt.% of steareth 2, as a solubilizer. Steareth 2 is the polyethylene glycol ether of stearyl alcohol having an average of 2 ether groups $-(OCH_2CH_2)-$ (e.g. Brij 72TM mentioned on page 34, lines 18-19), hence an alkanol alkoxyate as defined in Claim 1. As regards the amounts of steareth 2 to be used in the compositions of D6, a range from 2 to 10wt.% is disclosed (page 22, line 24).

According to D6 (paragraph bridging pages 7 and 8 and page 23 "General Function and Purpose"), the disclosed compositions are designed to be not dependent upon the presence of a mineral salt such as aluminium or zirconium chlorohydrate for their antiperspirant effectiveness but on a non-toxic water-insoluble occlusive film-forming antiperspirant polymer, which, when applied to the skin of the user, in particular the underarms, imparts a film which reduces perspiration, helps preventing perspiration odours and produces a pleasant fragrance.

D6 also discloses a method of topically reducing perspiration in a subject, consisting essentially of the step of topically applying to the skin of the subject in the area in which it is desired to reduce perspiration a topical antiperspirant composition consisting essentially of an effective amount of a non-toxic water-insoluble occlusive film-forming antiperspirant polymer in a topically-acceptable non-toxic medium (Claim 22), wherein the composition

applied to the skin of the subject can comprise the polymer plus a non-toxic topically-acceptable medium which acts as solvent for the polymer and wherein after application the solvent is evaporated to leave a film of the polymer (Claim 23).

3.2 It follows from the above analysis of D5 and D6 that D5 relates to compositions for semi-permanently colouring the hair and D6 concerns compositions for topically reducing perspiration. Those compositions are not intended for setting or styling the hair. In particular, D6 does not even address any hair conditioning objective, let alone styling, as it concerns an application to the skin to reduce perspiration. Thus, D5 and D6 do not address any problem related to conditioning and setting the hair.

3.3 Instead, the patent in suit relates to compositions for both conditioning and styling the hair without flaking (paragraph [0007], first sentence). This technical problem cannot be derived from the disclosure of D5 or D6, which do neither relate to a similar purpose or effect nor do they address a similar technical problem. Any similarity between the disclosure of the patent in suit and those of D5 and D6 is restricted to the common technical features of the chemical structure of the formulations and the description of a solid stick and its shape.

3.4 In this connection, the disclosure of a stick suitable for application to the hair, as in D5, or inevitably applied also to the hair of the underarm, does not make available any individualised product for conditioning and setting the hair nor, consequently, any intrinsic

properties, such as lack of flaking, which could be regarded as implying a technical problem relating to that addressed by the patent in suit.

3.5 Such a situation has already been recognised and adjudicated by several Boards of Appeal, as detailed in the case law of the Boards of Appeal of the EPO, 5th edition, 2006, I.D.3.1 to 3.3, which *inter alia* mentions T 0686/91 of 30 June 1994, Point 4. of the Reasons). Therefore, D5 and D6 cannot qualify as describing the closest state of the art.

3.6 It remains to determine whether and which of D8 and D10 or D0 can qualify as the closest prior art document.

3.6.1 D8 discloses a total hair care product for cleansing the scalp and cleansing and conditioning the hair, said product comprising:

(A) a solid waxy stick-like scalp cleanser comprising alkali metal fatty acid soap, amphoteric detergent, antimicrobial agent and emulsifier in a substantially anhydrous humectant solvent; and

(B) a cleaning and conditioning hair shampoo aqueous gel comprising a cationic amine salt which is the reaction product of a primary amine of the formula RNH_2 where R represents an aliphatic hydrocarbon chain containing from 8 to 22 carbon atoms with a dicarboxylic acid of the formula $HOOC-R'-COOH$ where R' represents an aliphatic hydrocarbon containing from 1 to 6 carbon atoms, and at least one amphoteric detergent (Claim 1).

D8 also discloses a method of total head care treatment for cleaning and conditioning both the scalp and hair

comprising contacting the scalp with a waxy, solid stick-like applicator as defined above, while avoiding as much as possible contacting the hair (column 2, lines 12 and 13); thereafter cleaning and conditioning the hair with an aqueous shampoo composition as defined above (Claim 4).

The stick-like scalp cleanser of D8 includes as essential ingredients an alkyl metal soap of a fatty acid, a betaine, an antimicrobial or fungicidal agent and an emulsifier. A scalp conditioning agent can also be included (column 2, line 25 to column 3, line 41). The degree of hardness of the stick will generally be determined by the amount of soap ingredient included in the formulation (column 4, lines 11-14).

The stick-like scalp cleanser illustrated by Example 1 of D8, which can comprise 30-35wt.% of propylene glycol and 20-35wt.% alcohol as base and solvent (vehicle), 2wt.% of a conditioner (diisopropyladipate), 3.6 to 4.4wt.% of a detergent (cocamido alkyl betaine) and 4 to 6wt.% of an emulsifier (Promulgen G) as well as 12wt.% of a soap obtained from reacting stearic acid and sodium hydroxide, might be considered as the closest compositional formulation of D8 to that as defined in Claim 1 of the Main Request.

However, the composition of Example 1 of D8 does not contain any film forming polymer and D8 (column 1, lines 41-58) aims at providing a convenient to use total head care package including a solid scalp treatment composition which can be used alone or in conjunction with a hair cleansing and conditioning shampoo, whereby the shampoo should not only be

effective in cleaning dirty hair but also in conditioning and treating healthy as well as damaged hair. The stick-like solid scalp cleansing composition should be easy to apply to the scalp without adversely affecting the hair, and the hair treatment should not adversely affect the scalp. Hence, the stick-like solid scalp of D8 is not intended for hair conditioning and setting.

- 3.6.2 D10 discloses a hair setting agent based on an alcoholic or aqueous-alcoholic solution containing a polymer combination, wherein the polymer combination consists of (a) at least one 50 to 100 % neutralised amphoteric polymer and (b) at least one non-ionic polymer (Claim 1).

The polymer combination can be contained in an amount of between 2 and 12 weight % (Claim 2), in particular the amphoteric polymer in an amount of between 1 and 11 weight % (Claim 3) and the non-ionic polymer in an amount of between 1 and 11 weight % (Claim 4), whereby the weight ratio of amphoteric polymer to non-ionic polymer is from 1:4 to 4:1 (Claim 5).

The amphoteric polymer can be an octylacrylamide/acrylate/butylaminoethylmethacrylate copolymer (Claim 6), thus a synthetic film forming copolymer of acrylamide, acrylate and methacrylate, as mentioned in the patent in suit (Paragraph [0031]).

The non-ionic polymer can be selected from polyvinylpyrrolidone, copolymers of vinylpyrrolidone and vinylacetate and terpolymers of vinylpyrrolidone, vinylacetate and vinylpropionate (Claim 8). Hence, the

non-ionic component does not comply with feature (d) of Claim 1.

The agent can contain from 2 to 80 weight % of a propellant and be in the form of an aerosol hairspray or aerosol hair lacquer (Claim 9), or can be present in the form of a non-aerosol hairspray or non-aerosol hair lacquer (Claim 10).

The agent of D10 has excellent hair-fixing properties, gives good feel and shine characteristics, can withstand high humidity without becoming sticky and is also easy to wash out (page 2, last full paragraph, and page 10, first full paragraph).

- 3.6.3 D0 discloses an aqueous dispersion suitable for the cosmetic treatment of hair, which contains in a cosmetically or physiologically acceptable medium:
- a) at least one sugar or (C₁-C₄)alkylsugar, C₄-C₂₂ fatty acid mono and/or diester which may be oxyethylenated if necessary; and
 - b) at least one reticulated copolymer of acrylamide and a monomer selected from:
 - (i) ammonium acrylate;
 - (ii) partially or completely neutralized 2-acrylamido 2-methylpropane sulfonic acid;
 - (iii) methacryloyl oxyethyl trimethylammonium chloride (Claim 1).

Hence, the compositions of D0 are not in a solid stick form but contain a film forming polymer.

The sugar or alkylsugar fatty acid mono and/or diester, which may be oxyethylenated if required, can be present

in concentrations of between 0.1 and 20% by weight with respect to the total dispersion weight (Claim 5). These components are nonionics but do not comply with the definition of feature (d) of Claim 1.

The dispersion can further contain an additive normally used in cosmetics or in dermatology selected from perfumes, dyes, preservatives, sequestering agents, animal, vegetable or synthetic oils, perfluoropolyethers, ceramides, solar filters, free radical absorbers, anionic, nonionic, amphoteric or cationic surfactants, polymers, proteins, packaging agents, foam stabilizers and propellants (Claim 11) and may have a pH of between 3 and 10 (Claim 12).

The dispersion for the treatment of hair can be packaged as a setting lotion (Claim 13), in particular of the non-washing type (column 4, lines 9-11).

D0 also discloses a cosmetic hair treatment method, in which a dispersion is applied to the hair which is then rinsed if necessary, said dispersion containing a composition as defined above (Column 4, lines 29-33).

The dispersion of D0 can be easily applied to the hair and imparts lightness, silkiness, improved wet combability and setting properties (column 1, lines 28-32 and 36).

3.6.4 It follows from the analysis of D8, D10 and D0 that:

- (a) D8 does not address the problem of providing a solid composition for conditioning and setting the hair, however close the composition of the stick-like scalp cleaner is to that defined in Claim 1;

- (b) D10 addresses a problem of hair conditioning and setting which is similar to that of the patent in suit. However, its composition is in a form suitable for spraying, e.g. an aerosol (page 9, first full paragraph), i.e. which is far away from solid, and requires a particular kind of nonionics, so that many compositional modifications are required to arrive at the composition defined in Claim 1 of the Main Request.
- (c) Instead, the composition of D0 is suitable for both conditioning and setting the hair and is in form of dispersion, thus requiring less compositional modifications, e.g. the addition of a polyhydric alcohol and a fatty acid soap for gelling the vehicle, to arrive at the composition as claimed.
- (d) Therefore, D0, which is acknowledged in the patent in suit (paragraph [0005]), discloses the closest prior art.

Problem and Solution

- 4. Having regard to D0, no improvement in terms of conditioning and/or setting of the hair, let alone of reduction of flakiness and crispiness, of the claimed compositions over those disclosed by D0, has ever been demonstrated by evidence.
- 5. Hence, the problem solved by the claimed composition is the provision of a further composition for conditioning and styling the hair which can be applied to the wet hair, which can be shaped in any desired form while improving the portability and reducing the amount of the packaging.

Obviousness

6. It is not contested that the claimed composition differs from that of D0 by the presence of the fatty acid soap and the nonionic component, i.e. those ingredients used for obtaining a solid form (e.g. communication of the Examining Division dated 4 September 2002, Point 2., and response of the proprietors dated 9 January 2003, Point 2.). Nor is it contested that D0 itself does not contain any hint at modifying its composition from a liquid dispersion to a solid stick. Hence, D0 alone cannot render obvious the claimed subject-matter.

7. D8 discloses a stick-like scalp cleaner for conditioning the skin in combination with a shampoo for cleansing and conditioning the hair. The scalp cleaner is in form of stick and contains some of the ingredients mentioned in Claim 1 but it certainly need not contain any film forming polymer for imparting hold to the hair. Hence, D8 cannot supplement D0 toward a composition for conditioning and styling as claimed.

8. As to D10, at least two of its requirements, namely the presence of specific nonionic polymers and the packaging of the composition in a sprayable form, are so far away that they could not constitute any hint leading the skilled person to a solid stick composition.

9. Further documents which could supplement the disclosure of D0 are not available.

- 9.1 D5 and D6 disclose cosmetic compositions in the form of solid sticks but relate to different purposes and

application, which do not include setting of the hair, so that the skilled person would never contemplate considering them as possible supplements for the disclosure of D0 to arrive at the claimed composition.

- 9.2 Instead, the assertions of the proprietors, that there was no hint in the prior art of hair conditioners, the formulae of which were in form of spray, mousse or gel, suggesting the presentation of a composition for hair conditioning and styling in a solid form such as a stick, and that it was not obvious to modify the balance between the film forming resin and its plasticizer in a very different way from the known one, e.g. to use specific nonionics in increased amount, without detrimental effect on the hold, appear to have some weight.
10. Even if any of D5 and D6 were considered as the closest prior art document, the conclusion would be the same, for the following reasons:
- 10.1 Apart from the fact that the claimed compositions differ from the compositions of D5 in the amount of the film forming polymer and in the nature of the nonionics, it has never been argued that D5 alone would render obvious the claimed subject-matter. In fact, D6 has been argued as a possible supplement of D5.
- 10.2 However, the compositions illustrated by Examples 10 to 14 of D6 comprise, as a solubilizer, an amount of alkanol alkoxyates which is far less than that required by Claim 1, i.e. at least 15 wt.%.

- 10.3 In that connection, D12, a clearly incomplete document invoked as a possible supplement of D6 as regards the possibility of increasing the amount of the solubilizer, only discloses compositions of deodorants and antiperspirants in stick form, with higher amounts of nonionics but intended for application to the skin.
- 10.4 Therefore, none of D5 and/or D6 would render obvious the claimed composition.
- 10.5 Indeed, the approach starting from D5 or D6, which only relies on the structural similarity of the compositions, i.e. which disregards the similarity of purpose and technical problem, is such that any attempt of the skilled person to establish a chain of considerations leading in an obvious way to the claimed subject-matter gets stuck at the start, either because of the intrinsic limitations imposed by any of D5 and D6 to their compositions, or because the skilled person so starting would not be led to combine any of D5 and D6 with prior art disclosures more directly relating to the technical problem than D5 and D6, as the relevance of those disclosures would not be apparent. In fact, the opponents have not tried to combine D5 or D6 with any of D8, D10 or D0.
11. Therefore, the claimed compositions and their applications fulfil the requirements of the EPC, so that the Main Request is acceptable.

12. *Conclusions*

12.1 None of the invoked grounds of opposition under Article 100(a) EPC prejudices the maintenance of the patent in suit in the amended form of the Main Request.

12.2 D12 is not relevant and need not be admitted in the proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

S. Fabiani

S. Perryman