Decision of 23 March 2004

Case Number: T 0769/00 - 3.3.2
Application Number: 92200133.4
Publication Number: 0496466
IPC: A23D 7/00

Language of the proceedings: EN

Title of invention:
Edible spread

Patentee:
UNILEVER N.V., et al

Opponent:
St Ivel Limited
DANISCO A/S

Headword:
Edible spread/UNILEVER

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Main and first auxiliary requests"
"Novelty - yes - specific thickener system"
"Inventive step - no - obvious choice between well-known thickener components"

Decisions cited:
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Catchword:
-
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DECISION
of the Technical Board of Appeal 3.3.2
of 23 March 2004

Appellant: UNILEVER N.V.
(Proprietor of the patent)
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 25 May 2000 revoking European patent No. 0496466 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: U. Oswald
Members: H. Kellner
J. H. P. Willems
Summary of Facts and Submissions

I. European Patent No. 0 496 466 based on application No. 92 200 133.4 was granted with 8 claims.

Claim 1 of this patent reads as follows:

"An edible spread containing a continuous fatty phase in an amount of less than 80 wt% and a dispersed proteinaceous aqueous phase, which aqueous phase comprises a quantity of a non-gelling, non-proteinaceous thickener system containing starch and sodium alginate so that the viscosity of the aqueous phase falls in the range 30-4000 mPa.s (when measured in a Haake RV20 with a concentric cylinder geometry at 100 rps,) at 20 degrees centigrade and the aqueous phase contains 0.01-4% protein calculated on the weight of the aqueous phase."

II. Opposition was filed against the granted patent under Articles 100(a), (b) and (c) EPC.

The following documents were cited inter alia during the proceedings before the opposition division and the board of appeal:

(D1) EP-A-0 279 499

(D2) EP-A-0 279 498

(D9) EP-A-0 420 315 (Art 54(3) EPC)

(E1) GB-A-1 450 269
III. By its decision pronounced on 16 May 2000, the opposition division revoked the patent under Article 102(1) EPC for lack of inventive step.

The meaning of the term non-gelling starch (disclosure as filed) or starch (disclosure as granted) for use in the non-gelling thickener system - as the skilled person knew - depended on the properties of the product used and the final concentrations in the composition. Moreover in the description the term starch was not only used together with the adjective "non-gelling" but also without any adjective.

Even if said starch and the other ingredients of the thickener system were not gelling, the aqueous phase could be a gelling one because of other ingredients (e.g. protein) and the skilled person could determine the viscosity of an aqueous phase containing such a thickener system and protein.
There was no real contradiction between the non-proteinaceous thickener system of claim 1 and the presence of protein in the thickener system according to claim 8. Additionally claim 8 had been granted as originally filed.

Accordingly, as to Article 83 EPC, the opposition division expressed the view that the skilled person would be able to carry out the invention, particularly since he knew about the gelling properties of the ingredients mentioned in the claims, and apart from that there were no problems about Article 123(2) EPC.

Concerning Article 54 EPC the opposition division was of the opinion that the invention was anticipated by the teachings of neither document (E1) nor document (E2). Neither of these documents nor any of the other documents cited during the opposition procedure disclosed all the ingredients of the edible spread claimed in the patent in suit.

However, regarding Article 56 EPC, inventive step, the opposition division pointed out that example 1 of document (E2) taken together with the common general knowledge of the person skilled in the art and in the light of the teachings of document (E1) prejudiced the patentability of the claims in suit.

IV. The appellant (patentee) lodged an appeal against said decision.

V. On 23 March 2004, oral proceedings took place before the board in the presence of the representative of the proprietor (appellant) and representatives of
opponent 2 (respondent); duly summoned, opponent 1 had informed the board in advance that it did not wish to attend the hearings.

VI. The appellant mainly argued that the differences between the teachings of (E2) and the patent in suit were not merely unnecessary features or the product of a simple choice out of a list of trivial elements, but resulted from inventive activity and even led to an advantageous effect, as had been shown in its letter of 4 August 1995.

It additionally filed documents (P1) and (P2) in order to demonstrate that the teachings of the patent in suit were realised in a commercially successful product and that other companies in the meantime used these teachings in order to create their own products.

During the oral proceedings it sought to file a further set of claims as additional auxiliary request, which was refused as being late filed.

VII. The respondents' arguments submitted in writing and during the oral proceedings may be summarised as follows:

In their view the opposition division's opinion was right with respect to assessment of inventive step; nevertheless they argued that even the objections concerning Article 100(b) and (c) EPC should already prejudice the maintenance of the patent in suit. Additionally they still submitted that the patent in suit lacked novelty vis-à-vis all of the documents (D1), (D2) and (E1) and they pointed out that the use of
starch and sodium alginate together in an edible spread was already known from (E9), examples 2 and 5.

As to Article 56 EPC the respondents submitted that the appellant provided no evidence in support of the technical problem underlying the contested patent, i.e. it did not provide any experimental results to show advantages of spreads as claimed in the patent in suit over a spread according to example 1 of (E2), the latter containing starch and vegetable gum instead of starch and sodium alginate.

Accordingly, the respondents maintained that the use of sodium alginate as a vegetable gum for edible spreads was obvious, for instance in the light of the teachings of (E1), particularly page 1 lines 93 to 96, or having regard to the fact that sodium alginate has been a well known member of this group of hydrocolloids for a long time.

As for the documents (P1) and (P2), they requested that those should not be admitted to the appeal proceedings on the grounds that they were late filed, the appeal proceedings not being a mere continuation of the first-instance proceedings.

VIII. The appellant (patentee) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or, alternatively, in amended form with a set of claims as filed with letter of 21 September 2000 (auxiliary request).

The respondents (opponents) requested that the appeal be dismissed.
Reasons for the Decision

1. The appeal is admissible.

2. Documents (P1) and (P2) were already filed with the grounds of appeal and represent a response to the first instance decision. They were therefore admitted to the proceedings.

3. Since claim 1 is identical in the main and auxiliary requests, and all the arguments used in the assessment of patentability are valid for both of them, claim 1 will be discussed for the requests together.

4. Articles 123(2) and 83 EPC

The features contained in the sets of claims from the requests may formally be derived from the application as filed (see originally filed claims 1 and 3 to 8 together with description page 3, lines 26 to 27 and page 4, lines 15 to 17).

To that extent the board has no reason to depart from the reasoning or the conclusion of the opposition division in the impugned decision referring to Article 123(2) EPC.

The claimed invention is in fact very broadly formulated but having regard to the specification of the patent in suit, particularly the worked examples, the board sees no reason to depart from the arguments and the positive conclusion of the opposition division
as regards the sufficient disclosure of the claimed subject-matter under Article 83 EPC.

5. Article 54 EPC

5.1 Claim 1 of the patent in suit relates to an edible spread and thus refers to a product per se. Parameters and functional features characterising such a product must at least be detectable or measurable in the claimed product.

The board is convinced that in the case of the claimed edible spread the viscosity of the aqueous phase and the property of being gelling or non-gelling attributed to the thickener system to be incorporated into the edible spread are not to be measured or detected in the final product.

The appellant's arguments in this context cannot hold. Especially since the thickener system contains starch and sodium alginate (claim 1 of the patent in suit; bold letters added by the board), other thickening agents can also be present in the aqueous phase. Under these conditions, separating the aqueous phase, determining the quality and quantity of the thickener system by analysis and producing a model system of such ingredients with water cannot reveal the viscosity of the originally used aqueous phase. Additionally, even minor amounts of substances originally introduced by the fatty phase ingredients (i.e. originating in butter fat or other natural fats), and having migrated to the aqueous phase during production of the product spread, will give misleading results.
As for the feature that the thickening system should be non-gelling, it has to be stated that thickeners are influenced by other ingredients in their gelling or non-gelling properties (i.e. calcium ions or other substances that make a non-gelling thickener produce a gel in their presence). Thus it seems impossible to conclude from the final product on the shelf, or even from a successful analysis of its ingredients, whether the originally introduced thickener system was gelling or not.

Thus these elements of claim 1 are not features capable of distinguishing the subject-matter of the patent in suit from the prior art.

5.2 Despite this, and even if all ingredients of the teachings in claim 1 of the patent in suit are used in document (E9), example 5, it cannot be derived clearly and unambiguously that the product in this prior art example contains a continuous fatty phase and a dispersed aqueous phase.

The skilled person has to take special care to produce a product containing a continuous fatty phase and a dispersed aqueous phase (see also patent in suit, column 6 lines 4 to 7 and lines 25 to 26).

In (E9) no hint can be found about a continuous fatty phase, and so it is an entirely open question whether a continuous fatty or aqueous phase will be produced with the processes of (E9). Moreover the concentration of proteins overall is more than 3% calculated on the weight of the aqueous phase by virtue of the content of sodium caseinate alone, and will exceed 4% taking into
account the fact that cream (70% butter fat) and dry skimed milk will also contain substantial amounts of protein.

Thus the subject-matter of the patent in suit has to be regarded as novel vis-à-vis document (E9).

5.3 Since starch in an individualised combination with alginate is not mentioned in documents (D1), (D2) and (E1), it is quite clear that there is no disclosure at all referring to a mixture of thickening agents with these two components. Accordingly the claimed subject-matter of the patent in suit is also novel vis-à-vis the state of the art represented by these documents.

6. Article 56 EPC

6.1 Document (E2) represents the closest state of the art.

It refers to an edible spread, containing at least 55% by weight of butter (that means calculated 52.6 wt% fat phase in example 1 of (E2)), potato starch and vegetable gum (see claim 1 of (E2)). Being a water in oil emulsion, butter contains a continuous fatty phase and a dispersed aqueous phase. In example 1 the protein content can be assumed to amount to about 1% calculated on the weight of the aqueous phase, given that butter normally contains around 0.7 wt% protein (see also decision of the opposition division, page 14, last paragraph and letter from opponent 1, dated 26 January 2001, "observations on the proprietor's submissions", page 4, point 3.7; these facts being uncontested by the appellant).
This edible spread shows resistance to mould growth, which means microbiological stability for the present case, and gives good taste, quality, texture and consistency (see (E2) page 1, lines 12 to 13 together with lines 22 to 28 and page 2, lines 20 to 22).

In the light of this prior art the problem underlying the patent in suit can only be seen in the provision of another edible spread.

This problem is solved by the edible spread according to claim 1 with a thickener system containing starch and sodium alginate.

Having regard to the worked examples of the patent in suit, the board is convinced that the problem has been plausibly solved.

Since the skilled person, knowing that sodium alginate is a well-known representative of the group of vegetable gums, only has to make a choice between alternatives of vegetable gums as shown for instance in document (E1), page 1, lines 93 to 95, the board can only conclude that the subject-matter of claim 1 of the main and of the auxiliary request does not involve an inventive step.

6.2 The board cannot agree with the appellant's submissions for the following reasons:

As outlined above, the viscosity of the aqueous phase and the question of presence of non-gelling or gelling thickener system or non-gelling or gelling starch are not distinguishing features of claim 1. Since starch is
present among the ingredients of example 1 of (E2) the only "difference" between the teachings of the patent in suit and the closest prior art remains the use of sodium alginate as vegetable gum.

The opposition division had already pointed out in its decision that as long as no specific effect in comparison with the closest prior art had been shown for the subject-matter of the patent in suit, the selection of sodium alginate was a trivial choice out of a list of alternatives. The respondents also outlined the lack of any evidence for a specific effect and the appellant did not provide such evidence by way of comparative examples with respect to the closest prior art, namely (E2).

In the light of these submissions, the mere statement of advantages of edible spreads containing starch, sodium alginate and protein by comparison with example 1 of the patent in suit (see column 4, lines 49 to 51) or even other combinations of ingredients (see letter of 4 August 1995, second paragraph) cannot provide the required evidence.

Under these circumstances, the submitted so called "secondary indicia" (see grounds of appeal, page 4) cannot effectively demonstrate the involvement of an inventive step.

The possible advantages of the composition of document (P2), published by Danisco after the patent in suit had been granted, may depend on any special ingredient (e.g. phosphorylated starches) and not merely on the simultaneous presence of starch and sodium alginate.
The alleged commercial success of the composition of (P1) does not necessarily indicate an inventive step either.

The same is true with respect to the argument that document (E2) is old relative to the priority date of the patent in suit.

Probably the use of gelatine for a long time was a very good and efficient solution for the problem of making edible spreads of good quality. So there was no need for using another thickener instead. The necessity of extensive purification of gelatine or of simply replacing such products made from connecting tissue of animals arose later and may explain the time difference between (E2) and the patent in suit without providing a hint for an inventive step.

Even if the appellant itself after the priority date of the patent in suit replaced some part of gelatine by starch in edible spreads (see (D9), claim 1) this is not an indication of inventive step for the case under investigation but may also be seen as a confirmation for the good quality of gelatine-containing spreads.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Townend U. Oswald