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D E C I S I O N
of 1 September 1998

Case Number: T 0595/95 - 3.3.4

Application Number: 87200678.8

Publication Number: 0244009

IPC: A23D 7/00

Language of the proceedings: EN

Title of invention:
Spreads

Patentee:
Unilever N.V., et al

Opponent:
Krayner, Warner Dirk
Koninklijke Nederlandse Ziuvelbond FNZ

Headword:
Spreads/UNILEVER

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Main request - novelty (no)"
"Auxiliary request - novelty (yes) - inventive step (yes)"

Decisions cited:
-

Catchword:
-



Case Number: T 0595/95 - 3.3.4

D E C I S I O N
of the Technical Board of Appeal 3.3.4
of 1 September 1998

Appellant:
(Opponent)

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Respondent:
(Proprietor of the patent)

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 17 May 1995
rejecting the opposition filed against European
patent No. 0 244 009 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: U. M. Kinkeldey
Members: D. D. Harkness
W. Moser

Summary of Facts and Submissions

I. European patent application No. 87 200 678.8 having the title "Spreads" was granted as European patent No. 0 244 009 with fourteen claims of which claim 1 read as follows:

"1. Spread having a dairy fat content between 9 and 65% (w/w), characterised in that the spread comprises a heat-treated dairy cream, wherein at least 50% (w/w), preferably at least 70% (w/w) of the whey proteins are denatured."

II. An opposition was filed under Article 100(a) EPC on the grounds of lack of novelty and inventive step in the light of prior art documents:

(1): GB-A-1 273 263

(2): US-A-4 515 825

(5): WPI-Abstract No. 73-31163U/22; corresponding SU-A-353702 and an English translation thereof

(6): Dissertation Johannis P.Melsen, "The stability of recombined milk fat globules" Landbouwniversiteit te Wageningen (21.09.87), page 9

Claims 1, 5 and 14 of an auxiliary request filed on 26 April 1995 read as follows:

"1. Spread having a dairy fat content between 9 and 65% (w/w), characterized in that the spread comprises a heat-treated dairy cream comprising at least 30% (w/w) of dairy fat, wherein at least 50% (w/w), preferably at least 70% (w/w) of the whey proteins are denatured."

"5. Process for the preparation of a spread containing dairy fat, characterized in that a dairy cream comprising at least 30% (w/w) of dairy fat is heated to a temperature of at least 70°C for at least 20 minutes, which heated dairy cream is subsequently worked, optionally together with other constituents, into a spread, so that a spread is obtained containing from 9-65% (w-w) dairy fat."

"14. A spread, characterized in that it contains:

38-86% (w/w) of non-dairy fat

9-50% (w/w) of a dairy emulsion, with more than 30% fat, which has been heated to a temperature of 70-105°C for at least 20 minutes

5-50% (w/w) of an aqueous phase

0-50% (w/w) of dairy emulsion which has not been subjected to the above heat treatment."

III. The opposition division maintained the patent on the basis of the claims of the main request according to Article 102(2) EPC. The opposition division reasoned the decision essentially as follows:

Novelty of the claims of the main request was to be acknowledged because their subject-matter was not directly and unambiguously derivable from the disclosure of document (2) for the reason that the term "natural cream" in this document would not be regarded as a synonym for the term "dairy cream" used in claim 1. Document (2) was only concerned with the manufacture of an artificial cream and not with dairy cream.

Inventive step was acknowledged in view of the disclosure of documents (1), (2) and (5) because it was not derivable from any of these documents to use heat treated dairy cream to improve the butter-like taste in a low fat content spread.

IV. The appellant filed an appeal and paid the fees in due time. A statement of grounds was filed.

V. The respondent (patentee) replied to the appeal, and filed a new document:

(9): "Coconuts, Production, Processing, Products"
J.P. Woodroof. 2nd.Ed. AO1 Publ.Col 1979 pages 206
to 207

VI. Oral proceedings took place on 1 September 1998.

VII. The appellant's submissions are summarised as follows;

Main request.

Novelty

It was admitted that the subject-matter of claim 1 was distinguished from the disclosure of document (1) by the increased content of dairy fat contained in the spreads claimed by the respondent.

However, there was not a difference between the disclosure of document (2) and the subject-matter of claim 1 because the person skilled in the art of the production of margarine and dairy products would understand that the term "natural cream" (see document (2) column 1 line 12) included dairy cream. The disclosure of document (2) was not such that it included cream derived from coconut (see document (9)) because said cream did not contain any protein which

was necessary for the production of denatured protein and therefore the emphasis was that document (2) was directed to the use of natural creams. This term was explained in document (6) as being cream from cows.

From document (2) column 2 it was apparent that a fat blend having the fat solids profile measured by NMR as being characteristic of milk fat was employed in the process of document (2) and therefore a dairy fat had been prior disclosed.

Document (2) disclosed that the protein in the dispersed phase consisted essentially of denatured whey protein, preferably 70%, and in the case that membrane filtration was employed to prepare the denatured whey 100%. This was used especially with artificial creams to enhance creamy characteristics.

The denatured whey protein did have a function in the determination of flavour, however it was admitted that flavour was nevertheless determined finally by its combination with fats and other ingredients of the spread.

Inventive step, Article 56 EPC.

The appellant relied upon document (2) as the closest prior art because the problem to be solved by the opposed patent was to obtain a butter-like flavour in the spreads as defined and this problem was equivalent to the problem of document (2) at column 1 line 15 which specified the production of an emulsion having a "good flavour impact on the palate".

Document (2) described the production of a low fat spread emulsion containing 20-60% of fat and denatured whey protein which on consumption gave a creamy sensation and a good flavour. Thus, the aim of that disclosure was to provide a spread of improved flavour because usually spread manufacturers tried to imitate a butter flavour.

There could be no inventive merit resultant upon using a "heat treated dairy cream comprising at least 30w/w of fat" because natural or dairy cream normally contained 40% of fat and if animal fats were incorporated in the spreads or milk fat used in reconstituted cream as suggested by the description of document (2) then the claimed subject-matter was obvious having regard to document (2) alone. The description of document (5) substantiated this argument because butter of improved flavour was obtained when a portion of the cream was sterilized at 120°C.

Although document (1) described a spread which had less dairy fat than the claimed spreads the mechanism for flavour control, namely the denaturing of whey protein, was the same as in the opposed patent. The respondent had not shown that the novel feature in the claims related to a technical advantage.

The patent application clearly indicated that the butter flavour of the spread was linked with the content of denatured whey protein and it was this which had solved the problem described in document (1) being the same problem as that of the opposed patent.

Auxiliary request

Articles 84 and 123 EPC

It was agreed that the examples of the patent in suit referred to the use of butter which contained more than 30% of fat but doubted that a dairy cream would necessarily contain at least 30% w/w of fat. Also example 5 which referred to 27% of heat treated butter fat may not fall within the scope of the main claim but otherwise no comments were submitted in respect of the compliance of this request with the requirements of Articles 84 and 123 EPC

Novelty

The subject-matter of claim 1 was not novel vis-à-vis the disclosure of document (2) at column 2 line 18 et seq which described a method by which a reconstituted cream comprising animal fat could be made. In order to avoid the problem of oiling out it was preferable to employ the same fat in each phase of the spread and since said fat undoubtedly contained in excess of 30% w/w of fat novelty could not be recognised for the spreads claimed.

With regard to the process of claim 5 document (5) described the use of heat treated butter to flavour the product prepared in that disclosure, it being noted that the patent in suit included butter in its definition of dairy cream.

Inventive step, Article 56 EPC

Same arguments applied as for the main request, the feature of 30% w/w of fat being not suited to come to a different conclusion.

VIII. The respondent's submissions are summarised as follows;

Main request

Novelty, Article 54 EPC

It was contended that the expert was the person skilled in the art of the production of low fat spreads and it would not be clear to him that a dairy cream was used in the process of document (2). Although the term "natural cream" included "dairy cream" there was no specific reference in document (2) to "dairy cream" and the same reasoning applied to the terms "animal fat" and "dairy fat". Further, according to document (2) coconut cream was a "natural cream" and therefore this term was broader in meaning than just dairy cream.

The disclosure of document (2) did not refer to reconstituted creams because they were not considered to be natural or artificial creams. A reconstituted cream was one which was made up of the separate constituents normally found in cream, thus it is not an artificial cream nor could it be considered as a natural cream.

There were no percentages for denatured whey given in document (2) thus the percentage limits of claim 1 were not disclosed. The disclosure of document (2) was directed to the heating of whey alone and therefore there was no disclosure pertinent to a heat treatment of dairy cream.

Inventive step, Article 56 EPC

The problem to be solved by the patent in suit was to provide an alternative to the process of the prior art document (1) which had described a process for improving the butter flavour of spreads.

This problem had not been solved by the disclosure of document (2) which referred only to flavour impact and not to a butter flavour. It was more the case that the description in document (2) showed that other problems had been solved, eg, enhanced creaminess, and improved stability and bacteriological stability, these properties being consequent upon the presence of denatured whey protein.

Document (5) was not a relevant document as its problem was concerned with the flavour of butter and the process described the manufacture of butter not that of spreads.

The description of the patent in suit showed that the flavour of the final spread product was not dependent solely upon denatured whey protein but also on the fats and other ingredients present.

Auxiliary request

Articles 84 and 123 EPC

The basis for the amendment to refer to a "heat treated dairy cream comprising at least 30% w/w of dairy fat" was to be found in the originally filed patent application at page 2 paragraphs 2 and 3. This qualification was present in all the claims of the request. Accordingly Article 123(2) and (3) EPC were complied with because this comprised a limitation of the subject-matter as disclosed and granted. The amendments were in themselves clear and complied with Article 84 EPC.

Novelty

There were many creams used in the manufacture of spreads and document (2) did not describe a dairy cream which contained at least 30% w/w of fat and which was heat treated. Further there was no mention in document (2) of a reconstituted cream as the disclosure was limited to natural and artificial creams.

Document (5) was not a relevant document because its disclosure concerned butter there being no reference to spreads, a content of 9 to 65% w/w of dairy fat or the heating conditions required to denature the whey protein.

These arguments were applicable to all the independent claims of the request.

Inventive step, Article 56 EPC

It could not be derived from document (1) that a butter-like flavour was directly connected with a content of heat treated dairy cream having at least 30% w/w of dairy fat. Also all the examples of document (1) included a ripening process which would affect the flavour of the spread.

- IX. The appellant requested that the decision under appeal be set aside and that the patent be revoked.
- X. The respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Novelty, Article 54 EPC*

The disclosure of document (2) relates to low fat spreads prepared using natural or artificial cream and containing 20 to 60% of fat, having a dispersed phase containing denatured whey protein and a continuous fat phase, the cream being heated to denature the protein.

3. The features of this spread are the same as in claim 1 (see section I above).

After an exchange of opinions whether the novelty of the subject-matter of claim 1 is dependent upon the meaning given to the term "natural cream" employed in the process of document (2), the respondent admitted that dairy cream was comprised within the term "natural cream" referred to in column 1 line 12 of document (2) and that "animal fat" specified at column 2 line 34 may include dairy fat.

4. The board agrees to this opinion because, on reading the phrase "natural or an artificial cream" in document (2) the person skilled in the art of manufacture of low fat spreads, margarine or dairy products in general, would be drawn to the conclusion that in the first instance dairy cream was intended. Normal dairy cream is what one would immediately understand as being natural cream and this is also the cream which people skilled in these arts wish to imitate. Therefore the Board comes to the conclusion that "natural cream" has in these circumstances to be considered to mean "dairy cream".

5. Finally the board observes that in order that the heat treatment may produce denatured whey protein it is self evident that a cream so treated has to contain whey. This is a necessary feature of the creams to be employed and therefore excludes coconut cream and any other cream which is devoid of whey protein.
6. For these reasons the subject-matter of claim 1 does not comply with the requirements of Article 54 EPC.

Auxiliary request

Allowability of amended claims, Articles 84 and 123(2) and (3) EPC

7. There were no substantive objections raised by the appellant under these articles of the EPC and the Board also sees no reason why the claims of the auxiliary request do not meet these requirements because the claimed subject-matter is based on the European patent application at page 2 paragraphs 2 and 3. Further, there is no extension of the scope of the claims beyond that of the claims as granted. The reservations expressed by the appellant concerning example 5 of the patent in suit and whether or not dairy cream contains more than 30% of fat do not affect these issues because the definition of "dairy cream" according to the patent in suit includes butter.

Novelty, Article 54 EPC

8. The feature common to all the claims of the auxiliary request namely, "a heat treated dairy cream (claims 1 to 13) or emulsion (claim 14) comprising at least 30%

w/w of dairy fat" is not a feature described in connection with a spread in the prior art disclosures of document (1) or document (2). The subject-matter of the claims is therefore distinguished from this prior art.

9. The disclosure in document (5) of a process to prepare butter and to remove off flavours therefrom caused by animal feedstuffs is not relevant to the novelty of the process for spread manufacture as claimed in claim 5.

10. Accordingly the subject-matter of the auxiliary request meets the requirements of Article 54 EPC.

Inventive step, Article 56 EPC

The closest prior art

11. Document (1) represents the closest prior art as the disclosure at page 1 lines 9 to 12 relates to the problem of improving the butter flavour of margarine. This was done by the incorporation of up to 10% by weight based on the total weight of the margarine of supercooked milk which was prepared in example 1 by heating whole milk at 98°C for 30 minutes. These time and temperature conditions comply with those of the heat treatment of dairy cream specified in the patent in suit, ie, heat to at least 70°C for at least 20 minutes. There were no details given relating to dairy fat content of the margarine, and this appeared to be in any case less than the dairy fat content of the opposed patent because the highest proportion of heat treated whole milk was only 5.6% in example 1, there being no other source of dairy fat specified.

The technical problem

12. The problem to be solved by the patent in suit was to provide an alternative spread having an improved butter-like flavour and process to prepare this spread.

The solution to the problem

13. This problem was solved in that a spread as defined by claims 1 and 14 was prepared employing a heat treated dairy cream or emulsion containing at least 30%w/w of dairy fat as defined in claim 5.

Assessment of inventive step

14. The differences between the claimed subject-matter and that of document (1) are that the spreads of the former contain a heat treated dairy cream or emulsion containing at least 30%w/w of dairy fat rather than a supercooked milk and there was no mention in document (1) of denatured whey protein.
15. The disclosure of document (1) whilst discussing the same problem as the opposed patent did not mention these features and therefore the solution to the problem is not derivable from document (1) alone.
16. Whilst it would be normal for the spread manufacturer to prepare only spreads having a good flavour there was no indication in document (2) that it was the intention to impart a butter flavour to the spread. The detailed description indicates that the denatured whey protein present in the product of document (2) had other functions than to improve flavour. The characteristics affected by the denatured whey protein were said to be an enhanced creaminess, stability and bacteriological stability. Example 3 discussed flavour impact but this was only in relation to the content of gelatin and was

not connected with amounts of fat or denatured whey protein. Therefore this disclosure does not address the problem according to the patent in suit and this is no hint towards the claimed solution.

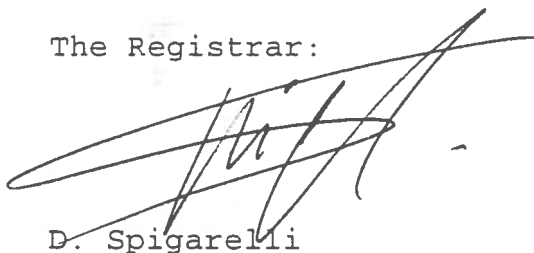
17. For the above reasons a combination of document (2) with document (5) also does not help the appellant's case especially because the latter document is not directed to the production of spreads having improved butter flavour but is concerned with a process for the manufacture of butter itself with the intention to avoid the off flavour effects caused by animal feedstuffs.
18. Both parties to the appeal agreed that the flavour of a spread is determined by the combination of all the ingredients present. Thus, the denatured whey protein, the total dairy fat content, and the heat treated dairy cream comprising at least 30%w/w of dairy fat, all contribute to the improvement in flavour. This combination of features was not obviously derivable from document (1) alone, or document (1) combined with any other citation, or from document (2) alone, or in combination with document (5).
19. For these reasons the subject-matter of independent claims 1, 5 and 14 of the auxiliary request complies with the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent on the basis of
 - (a) claims 1 to 14, filed on 26 April 1995 and
 - (b) description, pages 1 to 6 as granted.

The Registrar:



D. Spigarelli

The Chairwoman:



U. Kinkeldey

