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D E C I S I O N
of 13 October 2005

Case Number: T 0035/02 - 3.3.09

Application Number: 95938542.8

Publication Number: 0798964

IPC: A23G 1/00

Language of the proceedings: EN

Title of invention:

Process for Manufacture of Reduced Fat Chocolate

Patentee:

CADBURY SCHWEPPES PLC

Opponents:

Masterfoods GmbH

NESTEC S.A.

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 83, 123

Keyword:

"Main request - sufficiency of disclosure (no)"

"Auxiliary requests 1 to 3 - inventive step (no)"

Decisions cited:

T 0925/98, T 0939/92

Catchword:

-



Case Number: T 0035/02 - 3.3.09

D E C I S I O N
of the Technical Board of Appeal 3.3.09
of 13 October 2005

Appellant:
(Opponent 01)

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 5 November 2001
rejecting the oppositions filed against
European patent No. 0798964 pursuant to
Article 102(2) EPC.

Composition of the Board:

Chairman: P. Kitzmantel
Members: J. Jardón Alvarez
K. Garnett

Summary of Facts and Submissions

I. The grant of European patent No. 0 798 964 in respect of European patent application No. 95938542.8 in the name of CADBURY SCHWEPPES PLC, which had been filed on 5 December 1995, was announced on 24 March 1999 (Bulletin 1999/12) on the basis of 11 claims. Claim 1 read as follows:

"1. A method of producing a chocolate composition having a fat content of from 16.5 to 28 wt%, comprising the steps of:

- (a) forming a chocolate composition which has a higher fat content than desired in the chocolate composition to be produced,
- (b) subjecting said higher fat chocolate composition to a flavour development procedure,
- (c) milling to the required particle size at least one chocolate-making ingredient having a fat content which is appropriately below the desired fat content of the chocolate composition to be produced, and
- (d) blending said at least one chocolate-making ingredient after milling with the higher fat chocolate composition in a ratio such that the higher fat chocolate composition constitutes a major proportion of the final chocolate composition and the fat content is reduced so that the final chocolate composition has a fat content of from 16.5 to 28 wt%".

II. Two Notices of Opposition requesting the revocation of the patent in its entirety on the grounds of Article 100(a), (b) and (c) EPC were filed against this patent by:

MASTERFOODS GmbH, (Opponent I) on 23 December 1999
and by

NESTEC S.A. (Opponent II) on 24 December 1999.

In support of their requests in the course of the opposition proceedings, the Opponents filed the following documents:

D1: DE-A-37 35 087;

D2: Kirk-Othmer, Encyclopedia of Chemical Technology,
3rd ed. vol. 6, pages 10 to 17 (1979);

D3: WO-A-94/09649;

D4: WO-A-95/25435;

D5: WO-A-95/18541;

D6: HU-A-42925;

D7: JP-A-61-28346;

D8: CH-A-399 891;

D9: B.W. Minifie: Chocolate, Cocoa and Confectionary:
Science and Technology, (1970) pages 55 and 62;

D10: WO-A-92/19112 and

A1: Statutory Declaration by Thomas Beckett, dated
10.09.2001.

III. By its decision announced orally on 16 October 2001 and issued in writing on 5 November 2001, the Opposition Division rejected the oppositions.

The Opposition Division held that the application disclosed the invention in a manner sufficiently clear and complete for it to be carried out by the skilled person, essentially because the opponents had not shown that the embodiments directed to the lower end of the specified range did not work.

The Opposition Division further acknowledged the entitlement to the claimed priority of the claimed subject-matter as far as it concerned a fat content of from 18 to 28 wt% and recognized novelty and inventive step, especially over document D1.

Concerning inventive step, the Opposition Division accepted that the existing technical problem, namely the provision of a process for preparing a chocolate with improved flavour development was solved by conching a major proportion of a chocolate having a higher fat content followed by "diluting" its fat content with a component having a lower fat content. This solution was considered not to be obvious in view of D1 and of the general common knowledge in the field.

IV. Two appeals were filed against the decision of the Opposition Division, on 4 January 2002 by Appellant II (former Opponent II) and on 7 January 2002 by Appellant I (former Opponent I). Both Appellants paid the appeal fee and filed the Statement of Grounds in due time.

Both Appellants argued that the application did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art, and in support of their arguments they submitted the following experimental evidence:

A2: Affidavit of Martijn Charles Maria Bracke of December 2001, filed by Appellant I;

A3: Declaration by Peter William Cooke dated 25 February 2002 and

A4: Declaration by Linda O'Neill dated 25 February 2002, both filed by Appellant II.

Both Appellants raised objections of lack of novelty and inventive step on the basis of D1 and Appellant I further argued that the subject-matter of the claims also lacked novelty having regard to common manufacturing processes in chocolate technology such as use of rework, blending of chocolates and late addition of low fat ingredients to chocolate streams.

Appellant II further argued that the claims were not entitled to the claimed priority date because the lower limit of the specified fat content range "16,5 to 28 wt%" was not disclosed in the priority document.

In support of their arguments the Appellants filed with the Statement of Grounds and by letter dated 1 March 2004 the following further prior art documents:

- D11: B. W. Minifie: Chocolate, Cocoa, and Confectionery: Science and Technology, 3rd Edition (1989), pages 137, 205 to 207 and 623 to 632;
- D12: S. T. Beckett, Chocolate Coated Rework, 44th P.M.C.A. Production Conference, 1990, pages 96 to 102;
- D13: GB-A-2 199 725;
- D14: GB-A-2 081 064;
- D15: L. Russell Cook "Chocolate Production and Use" (1963) page 215;
- D16: C. D. Barnett "Candy Making - As a Science and an Art" (1960) pages 74 to 77;
- D17: C. Trevor Williams "Chocolate and Confectionery" (1956), pages 201 to 204;
- D18: N. W. Kempf "The Technology of Chocolate" (1964), page 57;
- D19: B. W. Minifie: Chocolate, Cocoa, and Confectionery: Science and Technology, 3rd Edition (1989), pages 148 to 155 and 162 to 164;

- D20: E. W. Kirk: Tried Favourites Cookery Book, 23rd edition (1934), page 203;
- D21: H. R. Jensen, The Chemistry Flavouring and Manufacture of Chocolate Confectionery and Cocoa (1931), page 119 and
- D22: I. L. Beeton, Beeton's Book of Household Management (1906), page 1406.
- V. By letters dated 18 November 2002, 31 March 2003 and 12 September 2005 the Respondent argued that the specification comprised sufficient guidance on how to realize the invention and filed the following experimental evidence in support of its case:
- A5: Declaration by Nigel Hugh Sanders dated 13 November 2002;
- A6: Declaration by Anthony James Brown dated 20 March 2003;
- A7: Declaration by Anthony James Brown dated 8 September 2005;
- A8: Declaration by Carole J. Elleman dated 12 September 2005;
- A9: A DVD containing video excerpts from the experiments conducted by A. Brown and
- A10: a spider plot representing sensory data of the chocolate according to example 1 and various "Cadbury's Dairy Milk" chocolates.

The Respondent also disputed all the arguments submitted by the Appellants concerning novelty and inventive step and filed with the letter dated 12 September 2005 a new main request and auxiliary requests 1 to 5.

Claim 1 of the main request read as follows:

"1. A method of producing a chocolate composition having a fat content of from 16.5 to 28 wt% comprising the steps of:

- (a) forming a chocolate composition which has a higher fat content than desired in the chocolate composition to be produced,
- (b) subjecting said higher fat chocolate composition to a flavour development procedure,
- (c) milling to the required particle size at least one chocolate-making ingredient having a fat content which is appropriately below the desired fat content of the chocolate composition to be produced, and
- (d) blending said at least one chocolate-making ingredient after milling with the higher fat chocolate composition, wherein at least one emulsifier is included in the chocolate making ingredient(s) having a fat content which is appropriately below the desired content composition to be produced and/or the higher fat chocolate composition, or is added to the blended mixture produced in step (d), and wherein the at least one chocolate making ingredient after milling and the higher fat chocolate composition

are blended in step (d) in a ratio such that the higher fat chocolate composition constitutes a major proportion of the final chocolate composition and the fat content is reduced so that the final chocolate composition has a fat content of from 16.5 to 28 wt%".

VI. During the oral proceedings held on 13 October 2005 the Respondent withdrew its previous auxiliary requests 1 to 5 and provided three new auxiliary requests 1 to 3. Compared to the main request, the following amendments were made to these requests:

- Auxiliary request 1. In Claim 1 the fat content of the chocolate composition was amended to read "from **18** to 28 wt%". Furthermore the chocolate composition to be produced is defined as having "**a moisture content of not more than 1 wt%**".
- Auxiliary request 2. Claim 1 of this request is based on Claim 1 of the auxiliary request 1 wherein the fat content of the chocolate compositions has been further amended to read "18 to **less than 25 wt%**".
- Auxiliary request 3. Claim 1 of this request is based on Claim 1 of auxiliary request 2 wherein the fat content of the chocolate has been amended to read "18 to **22 wt%**" and the fat content of the chocolate-making ingredient used in step (c) has been specified as being "**no more than 15 wt%**".
- Additionally, in all the auxiliary requests, the reference to the emulsifier in step (d) was

clarified to read "... fat content **of the chocolate** composition to be produced and/or the higher fat chocolate composition, **and/or** is added to the blended mixture in step (d), and..." (amendments highlighted by the Board).

VII. The arguments presented by the Appellants in its written submissions and at the oral proceedings held on 13 October 2005 may be summarized as follows:

- The experimental evidence filed by both Appellants demonstrated that the application did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art. The affidavit by Mr Bracke (A2) showed that the "chocolates" prepared according to examples 1 to 5 of the specification resulted in a respectively dry powdery and thick gum-like substance. None of the examples of the patent would result in chocolate compositions suitable for conventional coating, moulding, transporting and tempering procedures. The experiments carried out by Mr Cooke (A3) and Ms O'Neill (A4) showed that the ingredients listed in example 1 of the specification will not fit into the 10 qt bowl of a Hobart mixer and anyway the resultant chocolate made by reducing the quantities of example 1 of the patent by 20% did not show any improvement over the taste, flavour and texture of a low fat chocolate made by conventional means.

- Appellant I further argued that the recipe for chocolate icing described in D20 actually included all the process steps of Claim 1 of the patent and

the Respondent itself had acknowledged in the declaration by Ms Elleman (A8) that this chocolate composition was not a chocolate composition as defined in the patent because of the absence of a continuous fat phase. From that one had to conclude that the extremely broad subject-matter of Claim 1 did not include the essential requirements ensuring that a chocolate composition meeting the specified characteristics could be obtained.

- Concerning novelty, the Appellants pointed out that the comparative example of D1 disclosed a process in which a chocolate with about 27% fat, the intermediate product prior to the final addition of cocoa butter and lecithin, was provided by a method within the scope of Claim 1 of the patent. D1 was therefore novelty destroying.

Appellant I further argued that the well known technologies of adding rework, blending different chocolates and late addition of low fat ingredients to a conched chocolate stream all fell under the scope of the claimed subject-matter if applied to the preparation of chocolate compositions having the claimed low fat content. These methods thus also destroyed the novelty of the subject-matter.

- Insofar as the claims related to the manufacture of chocolate compositions having a fat content at the top end of the claimed range (25 to 28%), the application of the afore-mentioned well-known technologies (reworking, etc.) could not be

inventive, because chocolates with a fat content in these amounts would be entirely conventional.

Insofar as the subject-matter of the claims related to genuine low fat chocolate having a fat content below 25%, there was no inventive step, having regard to the combined teaching of documents D3 and D1.

- Concerning the auxiliary requests, the Appellants pointed out that they were filed too late and should not be admitted into the proceedings. Moreover, the arguments against the main request also applied against the auxiliary requests. Additionally, they did not fulfil the requirements of Article 123(2) EPC.

VIII. The arguments presented by the Respondent in its written submissions and at the oral proceedings may be summarized as follows:

- The counter-evidence submitted both from the inventor himself (A5) and from Mr Brown (A6 and A7) showed not only that the experiments set out in the patent specification, especially example 1, could be reproduced but also that the product was an acceptable low fat chocolate. All the ingredients could be fitted into a 10 quart Hobart mixer merely by adding the milled low fat component gradually, to allow entrapped air in the powder to be expelled from the mixture. Moreover the chocolate composition, although viscous, was able to flow under gravity and could be moulded to tablets without difficulty. The chocolate

composition prepared according to example 1 had indeed many of the characteristics of full fat chocolate, while the low fat chocolate made by Mr Cooke (A3) according to conventional techniques, when repeated by Mr Brown (see A7), was significantly poorer in several attributes including smoothness, cocoa flavour, creaminess, caramelisation and maltiness, and contained lumps of dry ingredients which had not been properly mixed.

- Concerning novelty, the Respondent pointed out that the example of D1 had a fat content of 30 wt% and therefore was outside the scope of the claims of the patent. With respect to the comparative example, it noted that there was no teaching in this example that additional fat or lecithin was added after the conching of the individual components, and that there were numerous ways in which the comparative example of D1 could have been carried out and all of them were outside the scope of the claimed invention.

Concerning the use of rework/blending/late addition, it noted that none of the cited documents related to the preparation of a chocolate with a low fat content which was intended to have similar organoleptic properties as standard full chocolate and that the skilled person seeking to prepare such a low fat chocolate would not find any guidance in these various techniques for the achievement of this goal.

- The Respondent considered document D3 as the closest prior art. It disclosed a method for the preparation of low fat chocolate wherein water was added to avoid ultrafine particles. The skilled person wishing to provide an alternative process for the preparation of low fat chocolate would have been motivated by D3 to consider alternative ways of removing or avoiding such ultrafine particles but would not find in D3, nor in D1 or in the remaining prior art, any clue as to the claimed solution for the preparation of a low fat chocolate.

IX. The Appellants requested that the decision under appeal be set aside and that the European patent No. 0 798 964 be revoked.

The Respondent requested that the appeals be dismissed and that the patent be maintained on the basis of main request as filed with the letter of 12 September 2005 or on the basis of auxiliary requests 1 to 3 filed during the oral proceedings.

Reasons for the Decision

1. The appeals are admissible.
2. *Procedural issues*
 - 2.1 Late filed evidence
 - 2.1.1 The Appellants' cases in appeal are in part supported by experimental reports A2 to A4 and documents D11 to

D22, which have only been filed at the appeal stage (see IV., above). The Board has thus to decide whether some or all of them should be taken into consideration in this appeal.

- 2.1.2 The filing of experimental reports A2 - A4 by the Appellants was triggered by the findings in the attacked decision that "it has not been contested by the Opponents and it is plausible that the process as claimed can be carried out as such" (point 2 of the reasons) and "that this problem has been solved is demonstrated by the examples contained in the patent specification as granted" (point 4 on page 6). They have been filed with the Statements setting out the Grounds of Appeal in support of grounds of opposition already present in the opposition proceedings.

Experimental evidence A5 - A10 was submitted by the Respondent in response to the evidence presented by the Appellants and has been filed early enough to allow them to prepare their case for oral proceedings.

It is also noted that the admissibility of the new experimental evidence was no longer contested by the parties at the oral proceedings and that Appellant I even relied in its submissions on the results contained in the Respondent's declaration A8.

Thus, the filing of the new evidence can be considered to have been made in legitimate defence of the parties' cases and its admission into the appeal proceedings depends on its relevance.

2.1.3 As will be discussed in detail below, the experimental reports A2 to A8 and A10, as well as the new documentary evidence cited by the Appellants, are of high relevance for the issues of sufficiency of disclosure and inventive step of the claimed subject-matter and are therefore all admitted into the proceedings.

2.1.4 The DVD film (A9) submitted by the Respondent with letter dated 12 September 2005 comprises merely visual confirmation of the manner in which the Respondent conducted its experiments and does not add anything to the information already presented in written form. It is therefore not considered of sufficient relevance to justify its admission into the proceedings at this stage.

2.2 Late filed requests

2.2.1 The Respondent filed auxiliary requests 1 to 3 during oral proceedings.

The amendments introduced in these requests are easily understandable and correspond to amendments already contained in previous auxiliary requests and/or concern the introduction of features of dependent claims into independent Claim 1. They do not lead to any substantial change of the subject-matter of the proceedings, such as would have needed major reconsideration by the Appellants.

2.2.2 Therefore, the Board finds that these requests, even though late filed, amount to a fair attempt by the

Respondent to defend its patent and accordingly they are admitted into the proceedings.

MAIN REQUEST

3. *Sufficiency of disclosure (Article 83 EPC)*

3.1 Article 83 EPC requires that the European patent application discloses the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. In accordance with the case law of the Boards of Appeal the requirements of Article 83 EPC are only met:

(i) if at least one way is clearly indicated in the patent specification enabling the skilled person to carry out the invention (Rule 27(1)(e) EPC), and

(ii) if the disclosure allows the invention to be performed in the whole area claimed

(iii) without undue burden, applying common general knowledge.

3.2 The description of the patent in suit includes five working examples so that, at first sight, it appears incontestable that the afore-mentioned condition (i) is met.

3.2.1 However, the repeatability of the examples in the specification has been criticized by the Appellants. Thus, Appellant II filed a declaration by Mr Cooke (A3) according to which he was unable to repeat example 1 of

the patent, firstly because the indicated quantities of the ingredients did not fit into the mixing apparatus said to be used and secondly because the repetition of the experiment with quantities reduced by 20% yielded a mixture with a putty-like consistency which could only be processed into a chocolate composition with difficulty and after a longer mixing period.

- 3.2.2 The Respondent filed counter-evidence (declarations A5 - A7 by Mr Sanders and Mr Brown) to show that the examples of the patent could be worked and that the resulting product was a normally processable low fat chocolate composition. The techniques adopted in these repeat experiments for the addition of the powdery component, i.e. slow or portion-wise addition, did not require more than ordinary skill for an expert faced with the task of adding a large volume of powder to a liquefied composition in a bowl. The resulting chocolate compositions were said to be viscous but nevertheless had the capacity to flow under gravity.
- 3.2.3 According to the respective submissions of the parties' at the oral proceedings, the apparent contradiction between the experimental evidence of the parties was caused mainly by the different appreciation of the results obtained, which in fact did not differ to the extent portrayed by the language used. It rather appears that the respective repeat experiments of example 1 resulted in very similar chocolate compositions and that the main difference was that Appellant II considered such composition as not suitable for further processing in a commercial process, while the Respondent processed it further by hand. In the Board's judgment, any differences existing in the

viscosities of the respective compositions can most likely be attributed to the different methods of addition of the powdery component (all at once, or slowly, in several lots).

Concerning the evaluation of the results of the sensory tests, a decision on the inferiority or superiority of one composition as compared to the other is hampered by the many parameters involved. However, the declaration A4, which compares the "inventive" low fat chocolate with standard full fat (30%) chocolate as well as with low fat chocolate manufactured according to a conventional "2 + 5 roll" method, found that in terms of basic tastes there are no significant differences between these three different chocolates (cf. sections 5 and 7, both entitles "Comparison").

3.2.4 The Board thus concludes that the skilled person is able, on the basis of the information in the patent specification and applying common general knowledge, to realise the claimed process under certain conditions in a fashion such as to yield a proper chocolate composition.

3.3 However, given the available evidence the Board concludes that the disclosure of the patent does not allow the skilled person to reduce the invention to practice without undue burden in the whole area claimed.

3.3.1 As already acknowledged in the introduction of the patent in suit (see [0003]), the processing of chocolate compositions in the liquid phase becomes more difficult with a lower fat content because the viscosity increases. The subject-matter of the claims

of the main request includes chocolate compositions having a very low fat content, down to 16,5%.

Appellant I has provided experimental evidence (see A2, Table 13) showing that the processing of such ultra low fat chocolate compositions (with a content of 17,1 wt% fat) was not possible. The attempts to prepare such chocolates resulted in a dry powder and not in a processable chocolate composition.

3.3.2 The Respondent did not submit any counter-evidence in that respect. Furthermore, the patent specification does not contain any information suitable to guide the skilled person in the direction of success once he has encountered failure in his attempt to prepare such very low fat chocolate compositions; there is no information about which features should be modified in order to obtain a reasonably processable chocolate composition. Even though a reasonable amount of trial and error is permissible when it comes to assessing sufficiency of disclosure there must still be available adequate instructions in the specification, taken with general common knowledge, to lead the skilled person necessarily and directly towards success. However, such information is missing in the present case with respect to the afore-mentioned very low fat chocolate compositions.

3.3.3 For these reasons the subject-matter of the claims according to the main request, insofar as it embraces such low fat chocolate compositions, does not fulfil the requirements of sufficiency of disclosure (Article 83 EPC), and this request is therefore not allowable.

AUXILIARY REQUEST 1

4. *Sufficiency of disclosure (Article 83 EPC)*

4.1 The subject-matter of the claims of the auxiliary request 1 has been limited to the preparation of chocolate compositions within the range of from 18 to 28 wt%. In view of this restricted fat percentage range, the experimental evidence discussed above concerning the preparation of very low fat chocolate compositions, as exemplified by the experiments referred to in Table 13 of A2, with about 17 wt% fat, is no longer relevant.

In these circumstances and taking into account the considerations set out in points 3.2.3 and 3.2.4 above as well as the fact that the burden of proof is on the Respondent Opponent, the Board has no reason to doubt that the disclosure allows the invention to be performed in the whole area as now claimed.

4.2 The requirement of Article 83, sufficiency of disclosure, is therefore met.

5. *Amendments (Article 123 EPC)*

5.1 Amended Claim 1 is based on Claim 1 of the granted patent with the following amendments:

- (i) The fat content of the chocolate composition has been limited to the range of **18** to 28 wt%. The lower limit is supported by Claim 10 as originally filed (see also page 4, last paragraph of the application as filed);

(ii) The resultant final chocolate composition has "a moisture content of not more than 1 wt%". This amendment is supported by page 11, last line of the description as originally filed; and

(iii) at least one emulsifier is included in the chocolate making ingredient having a lower fat content and/or in the higher fat chocolate composition and/or is added to the blended mixture. This amendment is supported by the paragraph bridging pages 5 and 6 and by Claim 16 of the application as originally filed (Claim 11 of the granted patent).

5.2 It has been argued by the Appellants that these amendments were not duly supported by the application as originally filed because (i) the range of the fat content of "18 to 28 wt%" was not disclosed therein as such, (ii) the moisture content was only given as "about 1 wt%" and (iii) the feature of the addition of emulsifiers included embodiments not directly derivable from the application as originally filed.

5.3 These arguments are, however, not accepted:

The fat content range is fairly supported by the original disclosure: It has been formed from the lower limit of the range disclosed in Claim 10 and the upper limit of the range disclosed in Claim 11. According to established case law (see e.g. T 925/98 of 13 March 2001, not published in the OJ EPO, point 2 of the reasons) such a combination of ranges is unequivocally derivable from the original disclosure.

The moisture content of no more than 1 wt% is also unequivocally disclosed on page 11, last line, of the application as originally filed. The deletion of the word "about" does not contravene Article 123(2) EPC because the exact value of 1 wt% also belongs to the disclosure.

Concerning the addition of the emulsifiers, it is noted that the addition to the blended mixture produced in step (d) is clearly supported by a combination of original Claims 1 and 16 and that the wording of amended Claim 1 does not exclude the further mixing of the ingredients after the addition of the emulsifiers in accordance with the original disclosure and the worked examples.

5.4 Furthermore, all the above amendments clearly restrict the scope of the claims.

5.5 Consequently the Board finds that the subject-matter of the claims of auxiliary request 1 meets the requirements of Articles 123(2) and (3) EPC.

6. *Novelty (Article 54 EPC)*

6.1 Claim 1 of auxiliary request 1 is essentially directed to a method of producing a chocolate composition having a fat content of from 18 to 28 wt%, by blending a milled chocolate-making ingredient with a higher fat chocolate composition having been subjected to a flavour development procedure and using at least one emulsifier.

6.2 The novelty of Claim 1 of the patent has been contested by both Appellants having regard to D1 and to common manufacturing processes in chocolate technology such as the use of rework, the blending of chocolates and the late addition of low fat ingredients to chocolate streams as disclosed in general books such as, for instance, D11.

6.2.1 D1 discloses a process for the production of milk chocolate wherein a dark chocolate without milk powder and a light chocolate containing milk powder are processed separately. After being prepared by grinding and mixing separately, the two products obtained are combined and the resulting blend is subjected to conching (see Claim 1). D1 is generally directed to the preparation of chocolate, not "low fat chocolate", and its description is silent about the fat content of the chocolate which is prepared thereby. The only example in D1 relates to the preparation of a chocolate with a final fat content above 29 wt% by mixing a white chocolate component having a fat content of about 29 wt% and a dark chocolate with a fat content of ca. 21 wt% (with addition of further fat at the end of the process, arriving thereby at the afore-mentioned final fat content). Moreover, according to this example none of the components undergoes a flavour development step (e.g. conching) prior to their blending (see drawing).

Thus, D1 does not explicitly disclose a process for the production of a chocolate composition having a fat content of from 18 to 28 wt% comprising all the features of Claim 1.

- 6.2.2 It has been argued by the Appellants that the "comparative example" of D1 describes a procedure within the scope of Claim 1. In this example (column 6, lines 4 to 15) the dark chocolate and the white chocolate are manufactured separately and are also separately subjected to conching (see also column 2, line 65 to column 3, line 5). According to the argument of the Appellants the blending of both components after conching would result in the disclosure of a (novelty destroying) "intermediate chocolate composition" within the claimed range, to which further fat (cocoa butter) would only later be added to make up the final fat content of above 29 wt%.
- 6.2.3 There is however no explicit disclosure in D1 that the additional fat is added after the conching of the individual components. There is also no reason to assume that such a process step belongs to D1's implicit disclosure. On the contrary, following the teaching of the "inventive" example, one should assume that the final addition of further fat (cocoa butter) was made during conching.
- 6.2.4 Consequently, the teaching of D1 does not directly and unambiguously disclose the subject-matter of Claim 1 of the auxiliary request 1.
- 6.3 Appellant I further argued that the subject-matter of Claim 1 covers common manufacturing processes in chocolate technology such as use of rework, blending of chocolates and admixture of low fat components to the chocolate stream towards the end of the manufacturing process (see, for instance, D11).

The reclaiming of chocolate containing material for re-use in chocolate manufacturing (rework) would inevitable comprise the reclaiming of a lower fat chocolate ingredient-containing composition, milling it to an appropriate particle size and adding this rework material to a chocolate stream, that is to say a conched chocolate composition with a higher fat content. Having in mind that the rework addition level is usually 5 to 8%, the rework of a chocolate with a 28.5 wt% fat chocolate would result in a process according to Claim 1 of the patent.

In a similar way, conventional blending processes could easily comprise all features of Claim 1 under consideration and these known processes should be also considered as novelty destroying for the claimed subject-matter.

6.4 This argument cannot be accepted either. For a document to be considered novelty destroying there must be a clear and unambiguous disclosure of a process falling within the scope of the claim. None of the documents cited by Appellant I discloses such a process for the preparation of a chocolate having a fat content of from 18 to 28 wt% as claimed and therefore they do not anticipate the claimed subject-matter. The question whether they could have been used for the preparation of such chocolate is a question of obviousness and not of novelty.

6.5 For these reasons the subject-matter of Claim 1 of the auxiliary request 1 is novel over the cited prior art (Article 54 EPC).

7. *Inventive step (Article 56 EPC)*

7.1 The subject-matter of Claim 1 is directed to the preparation of a chocolate composition having a fat content of from 18 to 28 wt%. It is common ground that according to general common knowledge in this field this range may be divided into two sub-ranges, namely a range of from 18 to less than 25 wt% fat, to be attributed to genuine "low fat chocolate", and a range of from 25 to 28 wt%, which corresponds to the lower end of the fat range of conventional ("full fat") chocolate compositions (see D11, page 205, second paragraph). This fact is acknowledged in the patent in suit, where reference is made to the fact that 25% is in many countries the legally required minimum fat content (paragraphs [11] and [12]).

7.2 Insofar as the claims relate to the preparation of such a conventional chocolate having a fat content of from 25 to 28 wt%, they do not involve an inventive step, having regard to the well-known processes for reworking of chocolates.

As already discussed above under 6.3 and 6.4, reworking of chocolate is a standard technology (see, for instance D11, pages 137, 205 and 623 to 632) wherein chocolate-containing reject material, from e.g. chocolate covered biscuits, etc. (cf. Respondent's letter dated 12 September 2005, point 5.2, especially sub-section (iii)), is recycled and thus necessarily combined with a higher fat chocolate composition which has already been subjected to a flavour development treatment in a given proportion (usually 5 to 8%).

7.3 This well known technology includes all the process features of Claim 1 of the patent in suit and there can be no inventive effort in the application of this standard technology to chocolate compositions with a fat content of from 25 to 28 wt%, because the manufacture of chocolate within this fat range can be assumed to lend itself to the same processing techniques as are involved with conventional (full fat) chocolate. In the absence of any evidence to the contrary, any process adaptation necessitated by the lower fat content (this being known to render processing less easy) can, in the Board's judgment, be overcome by routine adaptations.

7.4 Hence, the subject-matter of auxiliary request 1 lacks an inventive step (Article 56 EPC).

AUXILIARY REQUEST 2

8. *Amendments (Article 123 EPC)*

The fat content of the chocolate composition to be prepared according to Claim 1 of this request has been limited to "18 to less than 25%", the restriction on the upper limit being in accordance with originally filed Claim 9.

The subject-matter of the claims fulfils the requirements of Article 123(2) and (3) EPC.

9. *Inventive step (Article 56 EPC)*

9.1 The subject-matter of the claims according to the auxiliary request 2 has been limited to the preparation

of "genuine low fat" chocolate compositions and consequently the inventive step objections based on the use of rework of conventional (full fat) chocolates having a fat content of at least 25 wt.% (see auxiliary request 1) do not apply.

9.2 Closest prior art

As acknowledged in the description of the patent in suit (see paragraph [0003]), the reduction of the fat content in chocolate compositions increases the viscosity of the liquid phase, making processing more difficult. By the same token the conching or other flavour-developing steps become more difficult with lower fat content. The same drawbacks are identified in document D3, which acknowledges on page 11, lines 19 to 23, the difficulty of producing chocolate with less than 25% fat content having flow properties suitable for moulding, extruding or enrobing operations. To overcome these difficulties in D3, a process for the preparation of low fat chocolate compositions is proposed wherein the increase of viscosity is prevented by adding water and a surfactant in order to dissolve the ultrafine particles present in the composition which, because of their high surface area, have a negative impact on the flowability (see Claim 32; page 20, lines 12 to 15 and page 18, lines 26 to 28).

9.3 Problem to be solved

Having regard to this prior art, the objective problem to be solved by the patent in suit can be seen as the provision of an alternative process for the preparation of low fat chocolate which overcomes the manufacturing

problems occurring as a consequence of the low fat content of the composition.

9.4 Solution to the problem

This problem is said to be solved by the claimed process wherein essentially a milled chocolate-making ingredient is blended with a higher fat chocolate composition (being the major ingredient) which has been subjected to a flavour development procedure and wherein at least one emulsifier is included in the process.

9.4.1 The question whether this problem has been credibly solved by the claimed process was hotly disputed during the proceedings.

9.4.2 The patent in suit includes several working examples, according to which a low fat chocolate having the characteristic taste and flavour of full fat chocolate is said to be obtained.

9.4.3 Although the accuracy of the examples of the patent has been disputed, especially by Appellant II, the Board has already concluded (see 3.2.4 above) that the process of the patent as exemplified in example 1 enables, under certain conditions, the preparation of the desired low fat chocolate composition by a skilled practitioner.

9.4.4 It has, however, to be decided whether the above mentioned problem has been solved within the whole area claimed.

Appellant I submitted an affidavit (A2) which described several attempts to prepare a chocolate composition according to the method described in the patent. These attempts resulted in a dry, powdery and thick, gum-like substance for which it was not possible to determine a Casson yield or Casson viscosity. Variations in temperature, order of emulsifier addition, particle size distribution, mixing speed and time were reported as not resulting in a material suitable for tempering (see A2, Tables 4 to 12 and 14).

This experimental evidence demonstrates that preparation attempts fail to solve the technical problem underlying the patent in suit which are within the (broad) scope of present Claim 1 and which indisputably represent fair variations of the claimed teaching which the skilled person would consider.

It thus appears that the invention as it is characterised in Claim 1 fails to specify those features which are necessary to achieve success, i.e. to solve the existing technical problem; in that respect it is noteworthy that present Claim 1 does not include limitations concerning the nature of the higher fat chocolate or the chocolate-making ingredients, the order and specific technique of addition of the ingredients, its median particle size or the nature of the emulsifiers to be used. Nor does the patent specification contain such information, including recommendations as to how to turn failure into success (see paragraphs [0025] to [0029]). The Respondent, when questioned by the Board on that point at the oral proceedings, could not give any plausible explanation of why the experiments of A2 failed.

For these reasons and on the basis of all the evidence on file, the Board is not satisfied that substantially all the claimed embodiments allow the preparation of a chocolate composition as it is understood by a skilled practitioner in this art. In such circumstances, namely where the achievement of the desired technical effect is not possible within the whole area claimed, it cannot be accepted that there is an inventive step (see e.g. T 939/92, OJ EPO 1996, 309).

- 9.5 In view of the above findings, the subject-matter of Claim 1 of the auxiliary request 2 lacks an inventive step (Article 56 EPC).

AUXILIARY REQUEST 3

10. *Amendments (Article 123 EPC)*

The fat content of the chocolate composition to be prepared according to Claim 1 of this request has been limited to "18 to 22%" in accordance with originally filed Claim 10 and the fat content of the chocolate-making ingredient has been limited to be "no more than 15 wt%" in accordance with page 8, line 7, of the originally filed description.

The subject-matter of the claims fulfils the requirements of Article 123(2) and (3) EPC.

11. *Inventive step (Article 56 EPC)*

- 11.1 Although according to Claim 1 of this auxiliary request the fat content has been limited to 18 to 22 wt%, the

experimental evidence A2 of Mr Bracke (discussed in 9.4.4 for the auxiliary request 2) is still relevant, because it also relates to experiments falling within the scope of Claim 1 of this auxiliary request. Moreover, the specification is silent about any inventive contribution of the use of a chocolate-making ingredient with no more than 15 wt% fat content in the claimed method.

Under these circumstances, the reasoning in relation to the auxiliary request 2 applies *mutatis mutandis* to the subject-matter of auxiliary request 3, which therefore does not involve an inventive step (Article 56 EPC).

11.2 In summary, none of the Respondent's requests relates to patentable subject-matter.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

G. Röhn

P. Kitzmantel