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Datasheet for the decision of 14 October 2014

Case Number: T 2066/12 - 3.3.09

Application Number: 06019675.5

Publication Number: 1902629

IPC: A23G1/00, A23G1/20

Language of the proceedings: EN

Title of invention:
Method and apparatus for producing a confectionery product from multiple components

Patent Proprietor:
Kraft Foods R & D, Inc.

Opponent:
NESTEC S.A.

Headword:

Relevant legal provisions:
EPC Art. 100(b), 56

Keyword:
Admissibility of documents
Grounds for opposition - insufficiency of disclosure
Inventive step

Decisions cited:

Catchword:

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Case Number: T 2066/12 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 14 October 2014

Appellant: (Opponent)	NESTEC S.A. Avenue Nestlé 55 1800 Vevey (CH)
Representative:	Rupp, Christian Mitscherlich PartmbB Patent- und Rechtsanwälte Sonnenstraße 33 80331 München (DE)
Respondent: (Patent Proprietor)	Kraft Foods R & D, Inc. Three Parkway North Deerfield, IL 60015 (US)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 13 July 2012 rejecting the opposition filed against European patent No. 1902629 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	W. Sieber
Members:	M. O. Müller
	K. Garnett

Summary of Facts and Submissions

I. This decision concerns the appeal filed by the opponent against the decision of the opposition division to reject the opposition against European patent No. 1 902 629.

II. An opposition was filed requesting revocation of the patent in its entirety on the grounds under Article 100(a) EPC (lack of novelty and inventive step) and Article 100(b) EPC.

The documents submitted during the opposition proceedings included:

A1: G. Ziegleder et al., "Thickening of molten white chocolates during storage", Lebensm.-Wiss. u. Technol. 37, 2004, pages 771 to 778; and

A4: WO 00/32057 A1.

III. In its decision, the opposition division decided to reject the opposition. The decision was based on the claims as granted, independent claims 1 and 5 of which read as follows:

"1. A method of producing a molded confectionery product, comprising the following steps

a) transferring a fat-containing confectionery mass and a water carrier to mixing nozzles,

b) blending the fat-containing confectionery mass and the water carrier by a mixer (23, 24) in the mixing

nozzle (2) to a substantially homogeneous blended mass,

c) depositing the blended mass into at least one mould (4) or onto a conveyor belt or into a receptacle for enrobing,

characterised in that the above steps are performed within 60 seconds or less, more preferably 35 seconds or less, to substantially avoid viscosity increase of the blend.

"5. An apparatus for producing a molded confectionary product, comprising

a) channels (11, 12) for transferring a fat-containing confectionery mass and a water carrier from hoppers to mixing nozzles,

b) a mixer (23, 24) for blending the fat-containing confectionery mass and the water carrier to a substantially homogeneous blended mass,

c) at least one mixing nozzle (2) for depositing the blended mass,

characterised in that the apparatus is adapted to process the components within 60 seconds or less, measured from the time of transferring the fat-containing confectionery mass and the water carrier to the time of depositing the blended mass into at least one mould (4) or onto a conveyor belt or into a receptacle for enrobing."

IV. In its decision, the opposition division admitted *inter alia* the late filed documents A1 and A4 into the proceedings.

The opposition division acknowledged sufficiency of disclosure since the opponent had not provided any evidence that the characterising feature of the method defined in claim 1, and its corresponding feature in claim 5, did not have the desired effect with respect to the viscosity of the fat-containing confectionery mass. While there was a statement in the patent that the posed problem was solved by processing times of 60 seconds or less, the opponent failed to show that this could not be done.

The opposition division also acknowledged novelty of the claimed subject-matter over A4 since this document did not disclose the claimed processing time of 60 seconds or less and did not disclose an apparatus with a mixing nozzle.

Finally, inventive step was acknowledged starting from A4 as the closest prior art. Neither A4 nor any of the other documents gave an indication as regards reducing the processing times. Furthermore, A4 disclosed extrusion mixing rather than mixing in a mixing nozzle and there was no incentive to replace the extrusion mixing of this document by a mixing operation in a mixing nozzle. The claimed process and apparatus were therefore inventive.

V. This decision was appealed by the opponent (hereinafter: "the appellant"). With its statement of grounds of appeal filed on 23 November 2012 the appellant submitted a copy of decision T 63/06 and

A5: Experimental report "Investigation of Method/Apparatus of EP 1 902 629 B1";

A6: Declaration of A. Mañez, signed on 16 November 2012;

A7: US 4,191,786;

A8a: D. Hugelshofer, "Structural and Rheological Properties of Concentrated Suspensions Mixed with an Emulsion", Laboratory of Food Process Engineering, ETH Zürich, 2000, pages 70 to 72;

A8: PhD Thesis of D. Hugelshofer "Structural and Rheological Properties of Concentrated Suspensions Mixed with an Emulsion", 2000; and

A9: US 3,830,407.

VI. A response was filed by the proprietor (hereinafter: "the respondent") with its letters of 6 February 2013 and 10 April 2013, the latter containing first to third auxiliary requests.

VII. In its preliminary opinion, issued on 2 April 2014, the board commented on the admissibility of *inter alia* A5 and A6, sufficiency of disclosure, novelty and inventive step. As regards sufficiency of disclosure the board observed that a crucial question appeared to be whether the experimental data A5 showed that even though a substantially homogeneous blend was deposited within 60 seconds or less by the process steps as defined in claim 1, the viscosity substantially increased contrary to what was required in claim 1. If

this question was answered in the positive sense, a further crucial question was then whether the skilled person, on the basis of the opposed patent and the common general knowledge at the priority date of the patent, would have had sufficient guidance to select those embodiments of claim 1 that led to a substantially homogeneous blend without a substantial increase of viscosity.

VIII. With its letter of 22 September 2014, the respondent filed fourth and fifth auxiliary requests together with

A10: "Experimental Report on the Relationship between Shear and Mixing Performance";

A11a: "Industrial Chocolate Manufacture and Use", S. T. Beckett (ed.), third edition, 1999, pages 182 to 201;

A11b: "Industrial Chocolate Manufacture and Use", S. T. Beckett (ed.), third edition, 1999, pages 258 to 287; and

A11c: "Industrial Chocolate Manufacture and Use", S. T. Beckett (ed.), third edition, 1999, pages 230 to 259.

IX. During the oral proceedings, the respondent maintained its requests filed during the written proceedings, namely that

- the appeal be dismissed; alternatively

- the patent be maintained on the basis of one of the first to third auxiliary requests filed with letter of 10 April 2013 or the fourth or fifth

auxiliary requests filed with letter of 22 September 2014.

After the board had announced its opinion on the main and first to fifth auxiliary requests, the respondent submitted a sixth and seventh auxiliary request.

The respondent also requested that A4, A5, A6, A8, A8a and A9 be not admitted into the proceedings. In the course of the oral proceedings, the respondent withdrew its request that A8a be not admitted and did not pursue its admissibility objection against A4 but used this document *inter alia* as the closest prior art for its inventive step argumentation.

The appellant requested that the decision under appeal be set aside and the patent be revoked.

Furthermore, the appellant requested that A5, A6, A8, A8a and A9 be admitted and A10 be not admitted into the proceedings. The request put forward in the written proceedings that A7 be admitted was withdrawn. Furthermore, in the course of the oral proceedings, the appellant withdrew its request not to admit A10.

At the end of the oral proceedings, the respondent submitted amended pages of the description adapted to the claims of the sixth auxiliary request.

X. The claims of the main request are the claims as granted (see point III above). In the same way as claim 1 of the main request, claim 1 of each of the first to fifth auxiliary requests requires that a substantially homogeneously blended mass is obtained while a viscosity increase is substantially avoided.

The only independent claim of the sixth auxiliary request reads as follows:

"1. An apparatus for producing a molded confectionary product, comprising

a) channels (11, 12) for transferring a fat-containing confectionery mass and a water carrier from hoppers to mixing nozzles,

b) a static mixer (23, 24) for blending the fat-containing confectionery mass and the water carrier to a substantially homogeneous blended mass,

c) at least one mixing nozzle (2) for depositing the blended mass,

characterised in that the static mixer (23, 24) is integrated into the mixing nozzle (2) and the apparatus is adapted to process the components within 60 seconds or less, measured from the time of transferring the fat-containing confectionery mass and the water carrier to the time of depositing the blended mass into at least one mould (4) or onto a conveyor belt or into a receptacle for enrobing."

XI. So far as relevant to the present decision, the appellant's arguments can be summarised as follows:

Main request

A5 and A6 should be admitted into the proceedings since these documents were *prima facie* relevant for sufficiency of disclosure, represented a continuation of the attack made in opposition

proceedings and constituted a direct reaction to the opposition division's decision.

The invention as defined in claim 1 of the main request was insufficiently disclosed. The process of this claim was defined by two results, namely firstly that a substantially homogeneous blend was obtained, and secondly, that this blend was obtained without any substantial increase of viscosity. The claimed process had been reworked in tests 1 to 7 of A5. The resulting blend was either not substantially homogeneous or the viscosity of the blend had become so high that the blend could not be filled into molds. Hence, despite the fact that the process applied in A5 was as required by claim 1, it did not yield the claimed homogeneity and viscosity. Neither the patent nor the common general knowledge provided any guidance how the tests in A5 would have to be modified in order to obtain the homogeneity and viscosity as claimed. As declared by Mrs Mañez in A6, and as confirmed by the patent, there was a multidimensional set of parameters influencing the viscosity. The skilled person would thus have to carry out a research programme to identify suitable parameters in order to transform the failures of A5 into success. This amounted to an undue burden such that the invention as defined in claim 1 was insufficiently disclosed.

As regards the respondent's arguments, the appellant made the following points:

Contrary to the respondent's assertion, the skilled person would not have had any guidance to increase the nozzle diameter in the tests in A5. There was in particular no indication in the patent to

increase the nozzle diameter; all that the patent suggested in this respect was to use a combination of screw-shaped and cross-flow mixing elements. This was exactly what was implemented in, e.g., test 1 of A5, but still this test failed to give the claimed result. Furthermore, contrary to the respondent's assertion, A10 could not prove that increasing the nozzle diameter in test 1 of A5 led to the claimed homogeneity and viscosity, since the mixer applied in A10 was different from that applied in test 1 of A5.

The respondent's argument that the skilled person would have known that tempered chocolate had to be used as the starting material in the claimed process was not correct. More specifically, confectionery chocolate products existed that were not tempered. Therefore the restriction of the process of claim 1 to a process for producing a confectionery product did not imply a restriction to tempered chocolate as starting material. Furthermore, the use of tempered chocolate did not necessarily yield the claimed homogeneity and viscosity, as evidenced by the first test of A10.

Finally, the respondent's argument that the skilled person would have increased the number of screw-shape mixing elements in test 7 of A5 to improve the mixing and would thereby have obtained the claimed homogeneity and viscosity was not correct. The patent taught the skilled person to use cross-flow mixing elements to obtain better mixing and thus the skilled person would have added cross-flow rather than screw-shaped mixing elements.

Sixth auxiliary request

The sixth auxiliary request was attacked only on the basis of lack of inventive step. A4 was the closest prior art. The claimed apparatus differed from A4 in terms of the processing time of 60 seconds or less and in that the apparatus contained a static mixer integrated into a mixing nozzle rather than an extrusion mixer. According to the patent, the problem to be solved was to obtain a homogeneous mass directly after blending. The problem of obtaining this homogeneous mass was however already solved in A4. The objective technical problem was therefore an apparatus that allowed the speeding up of the production of a homogeneous blend. Mixing nozzles with static mixers were available to the skilled person. Therefore, the claimed solution was obvious.

XII. So far as relevant to the present decision, the respondent's arguments can be summarised as follows:

Main request

A5 and A6 were filed late and no reason had been given why these documents had not been filed already during the proceedings before the opposition division. Furthermore, the grounds of appeal represented a radical departure from the opponent's case pursued during the opposition proceedings. Finally, these documents were not *prima facie* relevant. These documents should hence not be admitted.

A5 could not support any insufficiency of disclosure. The skilled person looking at the tests

in A5 would know that low shear was needed during the mixing process in order to obtain the claimed viscosity. The same followed from column 3, lines 2 to 10 of the patent where it was stated that screw-shaped mixing elements had the advantage that they provided little shear stress. So in order to transform the failures of A5 into success, the skilled person would start from test 1 of A5 and maintain the mixing while reducing the shear. It was part of the skilled person's common general knowledge that he could do so by increasing the nozzle diameter. It was confirmed by A10 that this measure led to the claimed homogeneity and viscosity.

Furthermore, it was common general knowledge that a confectionery product, as referred to in claim 1, could only be produced with tempered chocolate. Without tempering, the product would not have the required gloss and "snap". Since the time during the claimed process was too short for tempering, the skilled person would know that he had to use tempered chocolate as a starting material for the claimed process. He would therefore use tempered chocolate in the tests of A5. Since furthermore, tempering would be lost at the temperature of 40°C applied in A5, and since, as confirmed by A1, the skilled person knew that high temperatures increased the thickening phenomenon, the skilled person would also know that he had to use a lower temperature than that applied in A5.

The skilled person could also start from test 7 of A5 since this test yielded the claimed viscosity. In order to have more mixing and thus to get the claimed homogeneity, the skilled person would have

increased the number of screw-shaped mixing elements and would have thereby transformed the failure of this test into success.

First to fifth auxiliary requests

The respondent declared that it had nothing to add with regard to sufficiency of disclosure of the first to fifth auxiliary requests.

Sixth auxiliary request

A4 was the closest prior art. The claimed apparatus differed from that of A4 firstly in that it was adapted to process the components within 60 seconds or less, secondly, in that it contained a mixing nozzle and, thirdly, in that the mixer in the nozzle was a static mixer. The objective technical problem was the provision of an apparatus that allowed the formation of a homogeneous blend of confectionery mass and water carrier while providing the possibility of reducing the viscosity increase. No document had been cited by the appellant that disclosed mixing nozzles with a static mixer. Furthermore, none of the cited documents suggested that the use of a mixing nozzle with a static mixer resulted in a homogeneously blended mass with reduced viscosity increase.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. Admissibility of documents

2.1 For its attack against sufficiency of disclosure, the appellant relied on A5 and A6, filed with its statement of grounds of appeal. The respondent requested that these two documents be not admitted into the proceedings.

2.2 As will be shown below (points 3), the invention as defined in claim 1 is insufficiently disclosed having regard to A5 and A6. These documents are thus *prima facie* prejudicial to the maintenance of the patent.

Furthermore, the arguments presented on the basis of A5 and A6 do not represent a new insufficiency attack but rather a continuation of the attack made in opposition proceedings, namely, that the skilled person is confronted with an undue burden when trying to achieve the result defined in claim 1 (see for instance point III of the opponent's letter of 29 May 2012). There is thus not, as alleged by the respondent, a radical departure from the opponent's case as advanced during the opposition proceedings.

Finally, the filing of A5 and A6 can be considered to be a direct reaction to the opposition division's finding in its decision that no evidence had been provided by the opponent that the claimed invention could not be carried out.

The board therefore decided to admit these documents into the proceedings.

2.3 A10 was filed by the respondent with its letter of 22 September 2014. During the oral proceedings, the appellant withdrew its initial request not to admit this document into the proceedings. In view of this, the board decided to admit A10 into the proceedings.

3. Sufficiency

3.1 The claimed process is defined by two results, namely firstly that a substantially homogeneous blend is obtained, and secondly, that this blend is obtained without any substantial increase of viscosity (see point III above). These results will be referred to hereinafter as "the claimed homogeneity" and "the claimed viscosity".

3.2 The appellant has reworked the claimed process in A5. This experimental report contains seven tests in which a white chocolate mass was mixed with two different amounts of a water-in-oil emulsion at 40°C in a mixing nozzle having a diameter of 10.1 mm (figure 11 of A5), using various arrangements of screw- and/or cross-flow mixing elements. The entire process was completed within less than 15 seconds. The process in A5 was thus carried out as required by claim 1.

It is shown in A5 that the blend resulting from tests 1 to 7 was either not substantially homogeneous and/or the viscosity of the blend had become so high that the blend could not be filled into molds. Hence, despite the fact that the process applied in A5 was as required by claim 1, it did not yield the claimed homogeneity and viscosity.

3.3 The crucial question is therefore whether the skilled person, on the basis of the opposed patent and the

common general knowledge at the priority date of the patent, would have had sufficient guidance to transform the failures of A5 into success, i.e. to modify the tests in A5 such that the claimed homogeneity and viscosity were obtained.

3.4 The patent:

- does not contain a single working example;

- does not provide any details about the fat-containing confectionery mass and the water carrier, except that it teaches the use of a chocolate and a water-containing emulsion, respectively (column 2, lines 30 to 32), something which was both done in the tests of A5;

- teaches the use of an amount of water carrier to obtain a water amount in the blend of more than 1 percent, preferably more than 3 percent (column 2, lines 45 to 48), something which was done in the tests of A5 (water amounts of 1 and 3.5 percent);

- teaches the minimization of the processing time to 35 seconds or less, more preferably 20 seconds or less and in particular 15 seconds (column 2, lines 15 to 29), something which was done in the tests of A5 (processing time is less than 15 seconds); and

- teaches the use of a mixing nozzle with a static mixer containing screw-shaped and cross-flow mixing elements to obtain low shear and better mixing (column 3, lines 2 to 10: "Further, the fat-containing confectionery mass and the water

carrier can be blended by a static mixer having at least one screw-shaped mixing element and/or at least one cross-flow mixing element. The screw-shaped mixing element, which has interruptions between the screw-sections, has the advantage that it provides little shear stress, while the cross-flow mixing element, which is an element with an irregular lattice-like structure of flow barriers, allows better mixing per given length."), something which was equally implemented in tests 1 and 2 of A5 (one screw-shaped and three cross-flow mixing elements).

Hence, in as far as there is any teaching available from the patent, it was been implemented at least in tests 1 and 2 of A5, and still the claimed homogeneity and/or viscosity was not obtained. The patent thus does not provide the skilled person with a teaching that allows him to turn the failures of A5 into success.

3.5 In this respect, the respondent's arguments are not convincing:

3.5.1 The respondent argued that it was common general knowledge that low shear was needed during the mixing process in order to obtain the claimed viscosity. This would also follow from column 3, lines 2 to 10 of the patent where it is stated that screw-shaped mixing elements have the advantage that they provide little shear stress. So in order to transform the failures of A5 into success, the skilled person would start from test 1 of A5 and maintain the mixing while reducing the shear. It was part of the skilled person's common general knowledge that he could do so by increasing the nozzle diameter. A10 showed that this measure would lead to the claimed homogeneity and viscosity.

However, there is no reference at all in the patent to the nozzle diameter, let alone any hint to increase this diameter in order to obtain low shear. In fact, as set out above in point 3.4, all that the patent teaches the skilled person in this respect is to use screw-shaped mixing elements (column 3, lines 5 to 8: "The screw-shaped mixing element, which has interruptions between the screw-sections, has the advantage that it provides little shear stress.,..."). Hence, if anything, the skilled person would have added screw-shaped mixing elements in test 1. Therefore, the respondent's argument that the skilled person would increase the nozzle diameter in test 1 of A5 must fail.

3.5.2 The respondent argued that the skilled person could also start from test 7 of A5 since this test yielded the claimed viscosity. In order to have more mixing and thus to get the claimed homogeneity, the skilled person would increase the number of screw-shaped mixing elements in test 7 and would thereby transform the failure (inhomogeneous blend) of this test into success.

First of all, there is no evidence that by this measure the skilled person would have obtained a homogeneous blend in test 7. Secondly, as set out above in point 3.4, the patent teaches the skilled person to use cross-flow mixing elements to obtain better mixing (column 3, lines 8 to 10: "while the cross-flow mixing element, which is an element with an irregular lattice-like structure of flow barriers, allows better mixing per given length."). The skilled person would thus not have increased the number of screw-shape mixing elements in test 7 but would have added cross-flow mixing elements and, as evidenced by tests 1 and 2 of

A5 (where one screw-shaped and three cross-flow mixing elements are applied), this does not necessarily yield the claimed homogeneity and viscosity.

3.5.3 The respondent finally argued that it was common general knowledge that a confectionery product, as referred to in claim 1, could only be produced with tempered chocolate. Without tempering, the product would not have the required gloss and "snap". Since the duration of the claimed process was too short for tempering, the skilled person would know that he had to use tempered chocolate as a starting material for the claimed process. He would thus use tempered chocolate when reworking the claimed process in A5. Since, furthermore, tempering would be lost at the temperature of 40°C applied in A5 and since, as confirmed by A1, the skilled person knew that high temperatures increased the thickening phenomenon, the skilled person would also know that he had to use a lower temperature than that applied in A5. By using tempered chocolate at a lower temperature in the tests of A5, the claimed homogeneity and viscosity would be obtained.

However, as evidenced by tests 1 and 2 of A10, using a tempered starting material at a temperature of 28° to 30°C as such is not sufficient to get the claimed viscosity. It is thus not credible that the skilled person could have transformed the failures in A5 into success by using tempered chocolate as starting material and by avoiding de-tempering by using a lower temperature.

3.6 Therefore, neither the patent nor the common general knowledge provides the skilled person with any guidance about how to modify the tests in A5 such that the claimed homogeneity and viscosity would be obtained. As

set out in A6 (points 3 to 7) and the patent (column 2, lines 21 to 25), there are numerous parameters influencing the viscosity, such as the type and amount of water carrier, the type of chocolate, the solids, fat and sugar content of the chocolate, the temperature, the mixing speed, the type of mixing and the flow rate. The skilled person would thus have to repeat the tests of A5 and vary all possible parameters until he obtained the claimed homogeneity and viscosity. The patent is therefore nothing more than an invitation to carry out a research program in order to find process embodiments that lead to the desired result of obtaining a substantially homogeneous blend while substantially avoiding a viscosity increase. The invention as defined in claim 1 of the main request is thus insufficiently disclosed.

First to fifth auxiliary requests

4. In the same way as claim 1 of the main request, claim 1 of each of the first to fifth auxiliary requests requires that a substantially homogeneously blended mass is obtained while a viscosity increase is substantially avoided. Therefore, for the same reasons as given above with regard to claim 1 of the main request, the invention as defined in claim 1 of each of the first to fifth auxiliary request is insufficiently disclosed.

Sixth auxiliary request

5. Admissibility

The sixth auxiliary request differs from the main request in that all method claims have been deleted and in that in independent apparatus claim 1, the mixer has

been defined to be a static mixer that is integrated into the mixing nozzle. The appellant had no objections against the admittance into the proceedings of the sixth auxiliary request. The board therefore admitted this request into the proceedings.

6. Inventive step

6.1 The appellant objected to the sixth auxiliary request exclusively on the basis of lack of inventive step.

6.2 The appellant in the written proceedings requested that A7, A8 and A9 be admitted into the proceedings and used these documents when attacking inventive step of the main request. During the oral proceedings, the appellant withdrew its request to admit A7 and, when discussing inventive step of the sixth auxiliary request, no longer relied on A8 or A9. Therefore, no decision is needed on the admissibility of these documents.

The respondent initially requested that the opposition division's decision to admit A4 into the proceedings should be set aside. The respondent did however not pursue this request during the oral proceedings, but in fact used this document as the closest prior art when arguing on inventive step. No decision on this issue is therefore needed by the board.

6.3 The invention as defined in claim 1 of the sixth auxiliary request is directed to an apparatus for producing a moulded confectionary product composed of a water carrier and a fat-containing confectionery mass (column 1, lines 5 to 9 and lines 50 to 53). One of the problems addressed in the opposed patent is to blend

the confectionery mass and water carrier uniformly (column 1, line 54).

6.4 In the same way as the opposed patent, A4 refers to an apparatus for blending water into a fat-based confectionery mixture (figure 1 and second paragraph of page 3). Equally in the same way as in the patent, one of the problems addressed in A4 is the provision of a substantially homogeneous blend of confectionery mass and water (penultimate full sentence on page 8 and example 1). Therefore, in line with the arguments of both parties, A4 constitutes the closest prior art.

6.5 The apparatus used in A4 comprises a Silverson high-shear mixer 2, first and second holding tanks 4a and 4b, a pair of flow control pumps 6a and 6b, a cavity transfer mixer 8, the forming station 10 and a cooling tunnel 12. The cavity transfer mixer 8 has first and second inlets 8a and 8b and a single outlet 8c. The oil/water emulsion is prepared in the Silverson high shear mixer 2 and passes into the first holding tank 4a. A pre-prepared fat-based heat-meltable confectionery mixture is transferred to the second holding tank 4b. The pumps 6a and 6b are activated causing the oil/water emulsion and the fat-based heat-meltable confectionery mixture to be passed via the respective inlets 8a and 8b into the cavity transfer mixer 8. The oil/water emulsion is mixed into the fat-based heat-meltable confectionery mixture as it passes through the cavity transfer mixer 8 until a substantially homogeneous fat-based heat-meltable confectionery composition emerges from the outlet 8c of the cavity transfer mixer 8. The composition is formed into bars and the bars are passed to the cooling tunnel 12 where they are cooled (page 7, penultimate line to page 9, first line).

As acknowledged by the appellant, A4 does not disclose that the apparatus is adapted to process the components within 60 seconds or less or that it contains a mixing nozzle. Furthermore, as equally acknowledged by the appellant, A4 uses an extrusion mixer (cavity transfer mixer) to mix the confectionery mixture and water, rather than a static mixer.

6.6 The problem addressed in the patent in suit is the provision of an apparatus that allows the production of a homogeneously blended mixture of confectionery mass and water carrier while avoiding a viscosity increase of the mixture (column 1, line 54 and column 2, lines 15 to 17). In view of the fact that it had earlier been concluded by the board that the teaching of the patent was not sufficient to obtain a homogeneous blend while substantially avoiding any viscosity increase, the respondent reformulated the problem as being the provision of an apparatus that allows the formation of a homogeneous blend of confectionery mass and water carrier while providing the possibility of reducing the viscosity increase.

6.7 As a solution to this problem, the patent proposes an apparatus according to claim 1, characterised in that it contains a mixing nozzle with a static mixer and in that it is adapted to process the components within 60 seconds or less.

6.8 It was not disputed by the appellant that by using a mixing nozzle with a static mixer, a homogeneously blended mass can be obtained. Furthermore, as set out in the patent (column 2, lines 15 to 16 and the sentence bridging columns 2 and 3), mounting the mixer into a mixing nozzle provides the advantage that after

mixing, the blend can be deposited immediately such that the time spent for mixing and depositing of the blend is minimised. Since the viscosity increases with time, minimising the processing time implies a reduced increase in viscosity. It is thus credible that the above problem is solved. This problem therefore constitutes the objective technical problem.

6.9 No document has been cited by the appellant that discloses mixing nozzles with a static mixer, let alone static mixers in the context of apparatuses for the production of molded confectionery products. Furthermore, there is no prior art on file suggesting that the use of a mixing nozzle with a static mixer allows the solution of the above problem of obtaining a homogeneously blended mass with reduced viscosity increase.

6.10 The subject-matter of claim 1, and by the same token of claims 2 to 5 is thus inventive.

7. No objections were raised by the appellant against the amended description and the board is satisfied that it meets the requirements of the EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent on the basis of:

   (a) Claims 1 to 5 according to the sixth auxiliary request filed during the oral proceedings of 14 October 2014;

   (b) The amended description pages numbered 2 and 3 as filed during the oral proceedings of 14 October 2014; and

   (c) Figures 1 to 3 as granted.

The Registrar: The Chairman:

D. Hampe W. Sieber

Decision electronically authenticated