Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 4 July 2019

Case Number: T 1185/15 - 3.3.09

Application Number: 03751140.9

Publication Number: 1555886

IPC: A23G1/00, A23G1/21

Language of the proceedings: EN

Title of invention:
DEVICE AND METHOD FOR CONTROLLING THE CONDENSATE AND/OR FROST FORMATION IN CHOCOLATE SHELL MOULDING

Patent Proprietor:
CARLE & MONTANARI - OPM S.p.A.

Opponents:
Bühler AG
KMB Produktions AG

Headword:

Relevant legal provisions:
EPC Art. 54(3), 56, 100(c)
RPBA Art. 12(2), 12(4)

This datasheet is not part of the Decision.
It can be changed at any time and without notice.

Keyword:
Opposition division's decision not to admit document overruled (yes)
Added matter: main request (no)
Novelty: main request (yes)
Inventive step: main request (yes)

Decisions cited:

Catchword:

This datasheet is not part of the Decision.
It can be changed at any time and without notice.

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1185/15 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 4 July 2019

Appellant: (Patent Proprietor)	CARLE & MONTANARI - OPM S.p.A. Via Trebbia 22 Località Quinto De´ Stampi Rozzano (MI) (IT)
Representative:	Heyer, Volker HWP Intellectual Property Ridlerstrasse 35 80339 München (DE)
Appellant: (Opponent 1)	Bühler AG Gupfenstrasse 5 9240 Uzwil (CH)
Representative:	Hepp Wenger Ryffel AG Friedtalweg 5 9500 Wil (CH)
Party as of right: (Opponent 2)	KMB Produktions AG Marksteinstrasse 5 8552 Felben (CH)
Representative:	Patentanwälte und Rechtsanwalt Weiß, Arat & Partner mbB Zeppelinstraße 4 78234 Engen (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 24 March 2015 concerning maintenance of the European Patent No. 1555886 in amended form.**

Composition of the Board:

Chairman	W. Sieber
Members:	A. Veronese
	A. Jimenez

Summary of Facts and Submissions

I. This decision concerns the appeals filed by opponent 1 and the patent proprietor against the decision of the opposition division finding that European patent No. 1 555 886 as amended meets the requirements of the EPC.

II. Claims 1 and 13 of the granted patent read as follows:

"1. *Method for controlling the condensate or frost formation in chocolate shell production by means of a mould (2) provided with a plurality of recesses (3) for liquefied or softened chocolate (4) and by means of a die (5), cooled by cooling means (7) and including a plurality of protrusions (6) each fit to be inserted into a respective below recess (3) to mould a chocolate shell, in cooperation therewith, in a condition of mutual approach of the mould 2 and of the die (5); the method being characterized in that it provides to blow dehumidified air (50), in a condition of mutual detachment of the mould (2) and of the die (5), at ambient pressure, in direction of protrusions (6) through at least a supply means (8) whose outlet (9) flows directly into the environment, so avoiding the condensate or frost formation at least on the protrusions (6).*"

"13. *Device for controlling the condensate or frost formation in chocolate shell production by means of a mould (2) provided with a plurality of recesses (3) for liquefied or softened chocolate (4) and by means of a die (5), cooled by cooling means (7) and including a plurality of protrusions (6), each fit to be inserted into a respective below recess (3) to mould a chocolate*

shell, in cooperation therewith, in the condition of mutual approach of the mould (2) and of the die (5); the device (1) being characterized in that it includes:

-at least a supply means (8) whose outlet (9) flows directly into the environment and is orientated in direction of protrusions (6);
-dehumidification means (10) fit to feed at least a supply means (8) with dehumidified air (50);
the supply means (8) being fit to blow the dehumidified air (50) at ambient pressure, in the condition of mutual detachment of the mould (2) and of the die (5)."

III. With their notices of opposition the two opponents requested revocation of the patent in its entirety on the grounds under Article 100(a) (lack of novelty and lack of inventive step), 100(b) and 100(c) EPC.

The documents submitted during the opposition proceedings included, among others:

D2: EP 0 914 776 A2
D5: US 5,409,722 A
D7a: WO 02/089595 A1
D12: DE 197 32 036 A1
D16: DE 196 16 928 A1
D18: DE 602 15 180 T2
D19: EP 0 720 430 B1

IV. The decision of the opposition division was based on a main request (patent as granted) and auxiliary request 2 (filed with a letter of 19 February 2015), which differed from the main request in that claim 1 was amended by inserting the feature:

"..*and is oriented in direction of protrusions (6)*.."

V. The decision of the opposition division can be summarised as follows.

The subject-matter of the granted patent did not extend beyond the content of the application as filed, and the claimed invention was sufficiently disclosed. However, the claimed subject-matter was not novel over D7a. The subject-matter of auxiliary request 2 did not extend beyond the content of the application as filed and did not extend the scope of protection beyond that conferred by the granted patent. The claimed subject-matter was novel over D2, D7a, D12 and D16. It also involved an inventive step starting from D2 as the closest prior art, alone or in combination with D16, or, alternatively, starting from D16 as the closest prior art. Although D16 was not admitted into the opposition proceedings (for being late-filed and not *prima facie* relevant), the opposition division considered this document in great detail in the context of novelty and inventive step.

VI. The decision was appealed by opponent 1 and the patent proprietor. For simplicity, the parties are referred to as opponent 1 and opponent 2 or the patent proprietor.

VII. Opponent 1 requested that the decision under appeal be set aside and that the patent be revoked in its entirety. It further requested that D16 be admitted into the appeal proceedings.

VIII. The patent proprietor requested that the decision under appeal be set aside and that the patent be maintained as granted or, alternatively, on the basis of one of auxiliary requests 1 to 3, filed by letter of 23 December 2015, which corresponded to auxiliary

requests 1 to 3 filed during the opposition proceedings. The patent proprietor further requested that D16, D18 and D19, referred to by opponent 1 in its statement of grounds of appeal, not be admitted into the appeal proceedings.

IX. The parties were invited to oral proceedings. In a written communication, the board drew their attention to the points which needed discussion. On 4 July 2019 oral proceedings took place before the board. At the end of the oral proceedings, the chairman closed the debate and announced the decision.

X. The arguments of opponent 1 relevant for the present decision were as follows.

The opposition division's decision not to admit D16 into the opposition proceedings was wrong and had to be overruled. The *prima facie* relevance of D16 was already evident from the extensive discussion in the decision under appeal in the context of the assessment of novelty and inventive step. D18 and D19 had already been filed during the opposition proceedings. No decision not to admit them in these proceedings was made. Since they were highly relevant for the appeal proceedings, they had to be admitted.

The replacement of the feature "...*in a maximum approach condition (A)*..." in the claims as filed with the feature "...*in a condition of mutual approach*..." in the granted claims extended the claimed subject-matter beyond that disclosed in the application as filed.

The subject-matter of granted claim 1 was not novel over D7a under Article 54(3) EPC. D7a disclosed a

method for manufacturing chocolate shells involving the use of a mould having a plurality of recesses (passage from page 7, last full paragraph, to page 8, second full paragraph) and the blowing of dehumidified air (passage from page 5, second paragraph, to page 6, fourth paragraph, claims 1, 14-16, 27, 29). The air was blown into the recesses but inevitably rebounded reaching the protrusions and preventing condensation. Although no explicit mention was made of a die containing a plurality of protrusions, the skilled person would have understood that multiple protrusions were present. This device did not comprise an external chamber.

For assessing inventive step, D16 was the closest prior art, at least as far as claim 13 was concerned. Despite the fact that the patent did not explicitly mention injection moulding, claim 13 encompassed an injection moulding device. D16 did not refer to chocolate making. However, it related to an injection moulding technique which was commonly used for moulding chocolate products, as shown in D5, D18 and D19. Like the opposed patent, D16 focused on avoiding condensation on the protrusion of a moulding apparatus involving blowing dried air in the direction of that protrusion. The claimed subject-matter differed from the teaching of D16 in that it related to a mould comprising a plurality of recesses. The objective technical problem was the provision of a method and an apparatus for manufacturing chocolate shells which improved the productivity of the manufacturing process. The skilled person confronted with this problem would have modified the apparatus of D16 by including multiple recesses and protrusions. Thus, an apparatus as depicted on page 9 of the statement of grounds of appeal, which fell

within the scope of the claims, would have been obtained without inventive skills.

Alternatively, D2, which disclosed a mould and a method for preparing chocolate shells, could be selected as the closest prior art. The underlying problem was to provide a simpler device that did not require the presence of an external chamber. Providing a system for blowing air on the protrusions of the cooled die would have been obvious taking into account the teaching of D2, alone or in combination with D16. In the apparatus depicted in figures 5 and 6 of D2, air was already blown toward the protrusions. The attack based on the combination of D2 and D16 was endorsed by opponent 2. In the oral proceedings, opponent 2 did not bring forward any further argument.

XI. The arguments of the patent proprietor relevant for the present decision were as follows.

Since D16 had been filed after expiry of the opposition period and was not *prima facie* relevant, the opposition division had been right not to admit this document into the opposition proceedings. D16 should also not be admitted into the appeal proceedings. D18 and D19 had been filed late during the opposition proceedings and were not to be admitted into the appeal proceedings.

The replacement in claims 1 and 13 of the expression "*in a maximum approach condition*" with "*condition of mutual approach*" did not extend the content of the granted claims beyond the content of the application as filed. The expression "*condition of mutual approach*" was disclosed *expressis verbis* on page 2, lines 13-14, as filed. Furthermore, the passages on page 2, lines 13-14 and lines 24-26, mentioned these two expressions

in describing figure 3 (embodiment "A"). Thus, in the context of the present application, they were interchangeable. Both defined the state in which the protrusions of the die were inserted in the underlying recesses to form a chocolate shell having the desired thickness.

The subject-matter of claim 1 of the opposed patent was novel over D7a. To arrive at the claimed subject-matter, opponent 1 combined separate sections of D7a, describing respectively:

- a mould comprising a plurality of recesses (passage from page 7, sixth paragraph, to page 8, second full paragraph)

- a system providing dehumidified air to prevent condensation on a protrusion (passage from page 5, second paragraph to page 6, second full paragraph)

A combination of these embodiments was not disclosed in D7a. The opponent also wrongly assumed that a mould containing a plurality of recesses inevitably included a die comprising a plurality of protrusions. Furthermore, the passage on pages 5-6 described air being blown for a limited time into the recesses and not toward the protrusions. Since the position of the protrusions during this limited time was not specified, it could not be established whether this air reached the protrusions. The same passage taught that the air surrounding the protrusions could be dehumidified. However, this air was not necessarily the air blown into the recesses. It could simply be air present in the chamber as described in D2.

D16 was not the closest prior art, because it related to an injection moulding device which worked differently from the chocolate making device according to the invention. The patent did not relate to and claim 13 did not encompass an apparatus for injection moulding. The fact that injection moulding was also used for preparing chocolate products was irrelevant. But even if starting from D16, the skilled person would not have modified the device and the operating conditions disclosed in this document in a way that would have led to the subject-matter defined in the claims.

D2 represented the closest prior art because it related to a method and to a device for the production of chocolate shells comprising a plurality of recesses and a cooled die comprising a plurality of protrusions. D2 addressed the problem of preventing formation of condense and frost formation on the protrusions. However, it did not disclose the blowing of air in the direction of the protrusions or an air supply means having an outlet oriented in the direction of the protrusions. Rather, it required a chamber to control the atmosphere surrounding the cooled protrusions to prevent condensation.

The underlying technical problem of the claimed invention was the provision of a method and a device for preventing condensation and frost formation on the protrusions which did not cause a significant temperature increase of the protrusions and allowed the use of air within a wide temperature range and rendered an external housing dispensable. None of the available prior art documents would have prompted the skilled person to modify the device described in D2 to obtain a device or method as defined in the granted claims. In

particular, D16 did not hint at the claimed solution because it related to a different field and to a device which differed substantially in structure and operating conditions from the claimed one. Thus, the claimed subject-matter involved an inventive step.

Reasons for the Decision

1. Admission of D16, D18 and D19

1.1 In the statement setting out the grounds of appeal, opponent 1 relied on D16 to attack inventive step. The proprietor requested that this document not be admitted into the appeal proceedings.

1.2 D16 was filed by opponent 1 during the opposition proceedings on the last day of the period set in the summons to the oral proceedings under Rule 116(1) EPC. The opposition division decided not to admit this document into the opposition proceedings on the ground that it was late-filed and not *prima facie* relevant (see point 2 of the decision). Despite this, the opposition division analysed D16 and decided that the claimed subject-matter was novel and involved an inventive step over its teaching (points 5.3.3 and 5.4.2). In particular, when dealing with inventive step, the opposition division addressed the issue of whether the claimed subject-matter was obvious over D16 alone or over a combination of D2 and D16. These attacks are discussed at length in the reasoning. Thus, in the context of the decision, D16 is certainly *prima facie* relevant. This is indeed the only available prior-art document describing the use of an air flow having a specific directionality to prevent condensation on the protrusion of a moulding apparatus. The fact that a thorough analysis of the relevance of

D16 was necessary to conclude that the claimed subject-matter was novel and involved an inventive step is at odds with the opposition division's finding that this document is not *prima facie* relevant.

1.3 Thus, the opposition division, although applying the right criterion (*prima facie* relevance) when assessing admissibility, arrived at a conclusion at odds with the way in which it then dealt with this document. Accordingly, the board decided to overrule the opposition division's decision. There are no reasons not to admit D16 into the appeal proceedings (Articles 12(2) and 12(4) RPBA).

1.4 D18 and D19 were filed shortly before the oral proceedings before the opposition division but are not mentioned in the reasoning of the appealed decision. A decision not to admit these documents was not taken by the opposition division. In the statement setting out the grounds of appeal, opponent 1 relies on D18 and D19 to show that injection moulding was used in the field of chocolate making and that, for this reason, D16, which describes a device for injection moulding, is the closest prior art. This argument is put forward to rebut the opposition division's selection of D2 as the closest prior art. D18 and D19 are thus part of the appellant's case under Article 12(2) RPBA. The board sees no grounds not to admit them into the appeal proceedings under Article 12(4) RPBA.

Main request (patent as granted)

2. *Added matter*

2.1 Claim 1 and 13 as granted refer to a "condition of mutual approach of the mould 2 and of the die 5". This

wording has been inserted into claims 1 and 13 as filed to replace the original wording "in a maximum approach condition". According to opponent 1 this replacement introduces new subject-matter extending beyond the content of the application as filed. In its opinion, the original wording defines a state of the claimed device in which the die and the mould are approached so that the protrusions are introduced in the recesses as deep as possible, up to a stop position. Conversely, the granted wording includes any intermediate position in which the mould and the die approach but do not necessarily reach the maximum achievable stop position.

2.2 The board does not agree that the aforementioned pre-grant amendment introduces new subject-matter. As noted by the patent proprietor, the wording "condition of mutual approach" is disclosed *expressis verbis* on page 2, lines 13-14, of the patent application as filed, which describes figure 3. As a matter of fact, the same device in the operating position depicted in figure 3 (embodiment "A"), where the protrusions penetrate in the underlying recesses of the mould, is described in two different passages of page 2: in lines 13-14 and in lines 24-26. In the first passage, the operating position is referred to as "a condition of mutual approach"; in the second, as "a maximum approach condition". This means that, in the context of the invention, these two wordings have the same meaning. Both refer to a device in a position where the protrusions are inserted into the underlying recesses to form a chocolate shell having the desired thickness. It would also not make sense to move the die all the way down to completely close the space between the protrusions and recesses. This is indeed not the state of the apparatus shown in figure 3.

2.3 Opponent 1 argued that figures 2 and 3 show a spacer defining the position of maximum closure of the device, which is reached when a shell is formed. This would define the "maximum approach condition". In this regard, from the schematic drawings in the figures alone, it cannot be concluded that a spacer has to be present to prevent further closure of the device. Furthermore, even if this were the case, it would not change the aforementioned conclusion that in the context of the invention the two expressions have the same meaning. Thus, the amendments in claims 1 and 13 as granted do not cause a change in the technical teaching of the invention and do not introduce new subject-matter extending beyond the application as filed (Article 100(c) EPC).

3. Novelty of claim 1

3.1 According to opponent 1 the method defined in claim 1 of the granted patent lacks novelty over D7a, a document which is part of the state of the art under Article 54(3) EPC. In its opinion, D7a discloses a method for preventing condensation and/or frost formation on the protrusions of a die used to produce chocolate shells, the method comprising:

- the use of a device comprising a cooled dye containing a plurality of protrusions and a mould containing a plurality of recesses (reference was made to page 7, last paragraph from the bottom, and to page 8, first and second full paragraphs)

- blowing dehumidified air in conditions of mutual detachment of the mould in the direction of protrusions (reference was made to the passage from

page 5, second paragraph, to page 6, fourth paragraph, claims 15-19)

3.2 The board does not agree that this combination of features is clearly and unambiguously disclosed in this document. D7a discloses a method for preventing the formation of air bubbles in chocolate shells and a device for implementing this method. The method involves the steps of pouring chocolate into the recess of a mould and then subjecting it to vibration, before a cooled die is inserted into the recess to form the shell.
According to further embodiments of this method, the recess can be subjected to rotation around its symmetry axis (page 4, third paragraph and claim 14) or a rotating airflow can be blown into the recess (page 5, second paragraph and claim 15). An embodiment comprising a plurality of recesses is also disclosed in the passage starting from the last full paragraph from the bottom of page 7 to page 8 fourth paragraph. This paragraph refers to figure 1, which schematically represents an example of a device according to the invention, and describes a device which includes a system for transporting moulds comprising a plurality of recesses which are filled with chocolate, a vibrating station and a cold-die moulding station. However, neither this passage nor figure 1 or any other part of D7a discloses a cooled die comprising a plurality of protrusions as defined in claim 1 of the patent. The board cannot agree with opponent 1 that the person skilled in the art of chocolate making would inevitably have assumed the device described on pages 7 and 8 and in figure 1 to include a die with a plurality of protrusions. As stated by the proprietor, a device where one single protrusion moves along and is lowered into the different recesses of a mould, or where the

recesses are moved under a single fixed protrusion can equally be foreseen. No evidence has been put forward by the opponents that only a device having a plurality of protrusions is technically conceivable and that such a device is directly and unambiguously disclosed in D7a.

3.3 The passages describing the embodiments where a rotating airflow is blown into the recess or where the recess rotates around its axes refer to the presence of one single recess and one single protrusion. The singular is used in all these passages. This means that D7a discloses a method and device for preventing the formation of air bubbles in chocolate shells by vibrating the chocolate mass and, in addition, independent embodiments in which the device further comprises at least one of the following:

- a mould comprising a plurality of recesses (passage from page 7, last paragraph from the bottom, to page 8, second full paragraphs)

- blowing a rotating air flow into one recess (passage from page 5, second paragraph, to page 6, third paragraph, and claims 15, 29)

- a single recess which rotates around its axis of symmetry (page 4, third and fourth paragraph and claims 14, 27)

3.4 A device in which at least two of these further embodiments are combined is not directly and unambiguously identified in D7a. But even if assuming, in favour of opponent 1, that a combination of the first two embodiments were disclosed, as well as a die

comprising multiple protrusions, there would be other reasons for the claimed method to be novel over D7a.

3.5 According to claim 15 and the passage on the second paragraph of page 5, air is blown into the recess for a certain time, after the chocolate is poured into the recess and before a cooled protrusion is lowered into the recess. This air can be dehumidified (page 6, second paragraph). However, the position of the protrusion before it is lowered into the recess is not specified. Thus, it is not possible to establish whether the air blown into the recess is also directed against the protrusions as required by claim 1. In this context, opponent 1 is wrong to say that the airflow is necessarily maintained until the protrusion plunges into the chocolate and that it would inevitably be blown against the protrusion. This assumption is also in contradiction with the explicit statement on page 5 and in claim 15 that the air is blown after the recess is filled with chocolate but before the protrusion is plunged into the chocolate.

3.6 Finally, page 5, third paragraph, and claim 16 state that the air surrounding the cooled protrusion can be dehumidified, to avoid condensation. Contrary to opponent 1's submissions, it cannot be assumed that this air is the same air blown into the recess that possibly rebounds against the protrusion. This air could be, for example, conditioned air which is pumped and diffuses into a chamber such as that disclosed in figures 5-6 of D2.

3.7 For these reasons, D7a does not disclose the method defined in claim 1. Thus, the subject-matter of this claim is novel (Article 54(3) EPC).

4. Inventive step

4.1 Different documents have been proposed by the parties as the closest prior art for assessing inventive step. Opponent 1's first choice was D16. In an alternative approach, it selected D2. This view was shared by opponent 2. Conversely, according to the proprietor only D2 could be regarded as the closest prior art, D16 being an unsuitable starting point.

4.2 Like the opposed patent, D2 relates to a device and process for producing chocolate shells involving the use of a mould comprising multiple recesses and a cooled die comprising multiple protrusions (claims 1 and 16, figures 5 and 6, paragraphs 24-27). Like the patent, D2 addresses the problem of preventing condensation on the protrusions of the cooled die (paragraphs [0008], [0021], [0038]).

4.3 D16 relates to a device and process for preparing objects by injection moulding. The device comprises a ring shaped air supply which blows dehumidified air along the protrusion of a cooled die to prevent the formation of condensation (see claims 1 and 6 and the passage from column 1, line 34, to column 2, line 45, and the figure). However, D16 does not mention the moulding of foods, let alone chocolate shells. Reference is only made to plastic materials (column 1, lines 21-30). Furthermore, the device comprises one single recess and one single protrusion.

4.4 The invention described in D2:

- has the same objective as the invention claimed in the opposed patent, namely to produce chocolate shells comprising multiple cavities

- involves the use of an apparatus which comprises, like the claimed one, a mould comprising a plurality of recesses and a cooled die comprising a plurality of protrusions

- addresses the problem of avoiding the formation of ice and condensation of water onto the cooled protrusions

Therefore, D2 is the closest prior art. This applies to claim 1 (relating to a method) and claim 13 (relating to a device).

4.5 Opponent 1 contended that D16 is the closest prior art for claim 13 because this claim encompasses devices for injection moulding, a technique used for manufacturing chocolate products (as shown in D5, D18 and D19). The board does not agree. The skilled person would not have considered claim 13 to relate to injection moulding devices. This is clear from the indication that the device comprises "...*a plurality of protrusions (6), each fit to be inserted into a respective below recess (3) to mould a chocolate shell...*". This wording, which is in line with paragraphs [0010-0011] of the description, means that the protrusions are lowered into a chocolate mass which has already been poured into the recesses to form a shell. This approach differs substantially from that employed in an injection moulding device, where the material to be moulded is injected into a preformed cavity defined by the mould and the die.

4.6 This interpretation is in line with the teaching of the patent as a whole that the invention does not relate to a device for injecting moulding but rather to a device

and method as disclosed in D2. Thus, this document is the closest prior art for the entire subject-matter claimed.

4.7 D2 discloses neither the blowing of dehumidified air in the direction of protrusions (as in opposed claim 1) nor the air supply means having an outlet oriented in the direction of protrusions (as in opposed claim 13). In the device described in D2, to prevent condensation and ice formation on the cooled die, the mould is placed into a containment chamber in which the atmosphere is controlled by supplying dehumidified air (see paragraphs [0030-0032], [0035], [0038]). This air diffuses within the entire volume of the chamber, reaching the corners "where pockets or bodies of otherwise undisturbed air of uncontrolled quality may accumulate" (see paragraph [0035]). As stated in paragraph [0031], the mixing of air within the chamber is useful for "reducing the occurrence of gradients of temperature and water content of the atmosphere in the chamber and in the immediate vicinity of the core member and mould cavity".

4.8 However, D2 does not disclose the blowing of an airflow having a determined directionality, oriented at least preferentially toward the protrusions, to prevent condensation or frost formation on those protrusions. Opponent 1's argument that from the arrows drawn in figures 5 and 6 airflows directed toward the protrusions can be identified is not persuasive. These figures provide a mere schematic representation of the arrangement of the device, and give an idea of how the air might diffuse within the chamber. However, the presence of airflows oriented specifically toward the protrusions cannot be inferred from the figures.

4.9 Starting from D2, the underlying objective technical problem can be seen as the provision of an alternative method and device for producing chocolate shells, which avoid condensation and frost formation on the cooled protrusions of a cooled die and allow a more efficient control of the local environment surrounding the protrusions, possibly rendering the use of a confinement chamber superfluous. The question which has to be answered is whether the skilled person would have considered modifying the method and device described in D2, to afford a corresponding method or device as defined in claims 1 and 13.

4.10 The gist of the invention described in D2 is to condition the entire atmosphere surrounding the moulding device by using a confinement chamber. There is nothing in D2 hinting at locally controlling the atmosphere surrounding the protrusions. The only prior art document addressing the problem of preventing condensation on a cooled protrusion using a localised air flow is D16, which describes an injection moulding device and only mentions the moulding of plastic materials. As already discussed above (point 4.5), there are substantial differences between the process for making chocolate using a device as described in D2 and the injection moulding process disclosed in D16. It is thus highly questionable that the person skilled in the art of chocolate making confronted with the underlying problem would have taken into account the teaching of this latter document.

4.11 Even if the skilled person would have considered D16, they would not have arrived at the solution according to the claimed invention. D16 relates to a device comprising one single cavity and one single protrusion and a ring-shaped outlet blowing dehumidified air

tangentially, along the sides of the single protrusion. Looking at D16, two alternatives could possibly be envisaged for adapting the system described in D2. Either using one single outlet surrounding all protrusions and blowing air tangentially to the external side of the most externally positioned protrusions (as shown in the figure on page 9 of opponent 1's statement setting out the grounds of appeal) or building into the dye a plurality of outlets, each blowing air tangentially to each individual protrusion. None of the available prior art documents suggests how to carry out these modifications or predicts whether the resulting device would be suitable for locally controlling the air surrounding the protrusions.

4.12 The airflow exiting from a single outlet surrounding a plurality of protrusions (the first alternative as depicted by opponent 1) would probably be insufficient for controlling the atmosphere on the side of the protrusions not exposed to the tangential airflow or on the surface of the internally positioned protrusions. Constructing a mould comprising a plurality of outlets surrounding each protrusion (second alternative) would require a very complex construction. All the outlets as well as a conveyor system feeding air to all those outlets would have to be built into the die. It would also be hard to predict whether the plurality of airflows exiting from the outlets would generate turbulence, preventing proper control of the local atmosphere surrounding the protrusions. In the board's view, such a complex construction would have to be based on knowledge of the patent, i.e. on hindsight.

4.13 For these reasons, when confronted with the underlying technical problem, the skilled person would not

seriously have contemplated modifying the system described in D2 relying on the teaching of D16 in such a way as to arrive at something falling within the scope of claims 1 and 13. Accordingly, the subject-matter of claims 1 and 13 of the granted patent involves an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The decision is set aside.

2. The patent is maintained as granted.

The Registrar: The Chairman:

B. Atienza Vivancos W. Sieber

Decision electronically authenticated