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**Datasheet for the decision  
of 31 May 2016**

**Case Number:** T 1844/13 - 3.3.09

**Application Number:** 03713243.8

**Publication Number:** 1471795

**IPC:** A23G3/00

**Language of the proceedings:** EN

**Title of invention:**

METHOD FOR CHOCOLATE COATING OF SOFT CONFECTIONERY CENTERS

**Patent Proprietor:**

Mars Incorporated

**Opponent:**

NESTEC S.A.

**Headword:**

**Relevant legal provisions:**

EPC Art. 56, 100(a), 100(c)

**Keyword:**

Amendments - added subject-matter (no)  
Inventive step - (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

European Patent Office  
D-80298 MUNICH  
GERMANY  
Tel. +49 (0) 89 2399-0  
Fax +49 (0) 89 2399-4465

Case Number: T 1844/13 - 3.3.09

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.09**  
**of 31 May 2016**

**Appellant:** NESTEC S.A.  
(Opponent) Avenue Nestlé 55  
1800 Vevey (CH)

**Representative:** Rupp, Christian  
Mitscherlich PartmbB  
Patent- und Rechtsanwälte  
Sonnenstraße 33  
80331 München (DE)

**Respondent:** Mars Incorporated  
(Patent Proprietor) 6885 Elm Street  
McLean,  
Virginia 22101-3883 (US)

**Representative:** Cockerton, Bruce Roger  
Carpmaels & Ransford LLP  
One Southampton Row  
London WC1B 5HA (GB)

**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 27 June 2013  
rejecting the opposition filed against European  
patent No. 1471795 pursuant to Article 101(2)  
EPC.**

**Composition of the Board:**

**Chairman** W. Sieber  
**Members:** N. Perakis  
E. Kossonakou

## **Summary of Facts and Submissions**

- I. This decision concerns the appeal filed by the opponent against the decision of the opposition division rejecting the opposition filed against European patent No. 1 471 795.

Claim 1 as granted reads as follows:

"1. A method of chocolate coating soft confectionery centers comprising the steps of:

(a) tumbling and mixing said soft confectionery centers at an initial temperature of from 0°C to 15°C;

(b) applying said chocolate onto the surface of said tumbling soft confectionery centers to cover the centers with chocolate, wherein said chocolate is at a temperature of from 36°C to 50°C;  
and

(c) cooling said chocolate covered soft confectionery centers. "

- II. The patent was opposed on the grounds of Articles 100(a) (lack of inventive step) and 100(c) EPC.

The documents filed by the opponent were:

D1: US 3 574 639 A and

D2: US 5 424 085 A.

- III. The opposition division decided that the subject-matter of claim 1 as granted did not extend beyond the content of the application as filed because:

- (i) tumbling inevitably occurred during mixing centers in a bed, and the application as filed contained indications that tumbling had always been envisaged;
- (ii) a coating process, by its very nature, always resulted in an application of the coating material onto the surface of the centers to be coated, and
- (iii) the initial bed temperature was directly derivable from the application as filed.

It also decided that the subject-matter of claim 1 involved an inventive step starting from D1 as the closest prior art.

IV. The opponent (in the following the appellant) filed an appeal against the decision of the opposition division and requested that it be set aside and that the patent be revoked in its entirety. The appellant also submitted the following documents, D3 and D4:

D3: Groves & Company, "Chocolate Panning", 46th P.M.C.A. Production Conference, 1992, pp 135-140; and

D4: Industrial Chocolate Manufacture and Use, 3rd ed., S.T. Beckett, Nestlé R&D Center, York UK, 1999, pp 287-301.

V. By letter dated 17 March 2014, the patent proprietor (in the following the respondent) filed observations on the appeal and requested that the appeal be dismissed, or that the patent be maintained on the basis of the claims of one of auxiliary requests 1 to 3 filed with said letter.

- VI. In reaction thereto, the appellant filed additional arguments and an extract from Webster's New Encyclopedic Dictionary establishing the meaning of the terms "mixing" and "tumbling" numbered as Annex 1.
- VII. In a communication, the board gave its preliminary opinion on the issues to be discussed at the oral proceedings which took place on 31 May 2016.
- VIII. The relevant arguments put forward by the appellant in its written submissions and during the oral proceedings may be summarised as follows:
- The subject-matter of claim 1 was an accumulation of features, which were not disclosed as such or in combination in the application as filed. These features were:
    - tumbling and mixing of the soft confectionery centers;
    - tumbling and mixing at an initial bed temperature of from 0°C to 15°C;
    - applying chocolate onto the surface of said tumbling soft confectionery centers to cover the centers with chocolate.
  - The subject-matter of claim 1 lacked an inventive step in view of the obvious combination of D1 with any of D2, D3 or D4.
    - The method of claim 1 differed from that of D1 in the initial temperature of the bed of confectionery centers and the temperature at

which chocolate was applied onto the confectionery centers.

- The claimed method did not provide a technical effect different from the effect disclosed in D1. The skilled person would not have considered a smooth and uniform chocolate coating of a soft confectionery center (i.e. the effect mentioned in the patent in suit) to be different from a chocolate coating of a soft confectionery center free of pinholes and cracks (the effect mentioned in D1). This was also so, because the patent did not contain any comparative technical data.
- Therefore, the technical problem concerned the provision of an alternative method for the preparation of chocolate-coated, soft confectionery centers.
- However, the modifications of (i) the initial bed temperature and (ii) the chocolate application temperature in the method of D1 were arbitrary. Moreover, these temperatures had been disclosed in D2, D3 and D4 in the context of chocolate coating soft confectionery products. Thus, the skilled person would have found in these documents the motivation to apply these temperatures in the method of D1 without the exercise of any inventive step.

IX. The relevant arguments put forward by the respondent in its written submissions and during the oral proceedings may be summarised as follows:

- The subject-matter of claim 1 did not extend beyond the content of the application as filed. Contrary

to the assertions of the appellant, all features of claim 1 and their combination were disclosed either explicitly or implicitly in the application as filed.

- The subject-matter of claim 1 involved an inventive step. D1 was considered to be the closest prior-art document. The claimed method differed from the method of D1 as regards the "temperature differential" defined by the initial temperature of the bed of confectionery centers and the application temperature of the chocolate. This temperature differential had the technical effect of providing a smooth and uniform coating of chocolate. This was completely different from the absence of cracks and pinholes from the outer shell of the confectionery product of D1 since the latter did not necessarily have a smooth and uniform surface but could have a bumpy or raspberry-like surface. Thus, contrary to the assertion of the appellant, the technical problem in view of D1 was not the provision of an alternative method but the provision of a method which gave confectionery products with a smooth and uniform chocolate-coated surface. The skilled person starting from D1 and aiming at such a method would not have found in any of D2, D3 or D4 the necessary motivation towards the claimed temperature differential. Consequently, the assertions of the appellant were based on hindsight.

X. The final requests of the parties were as follows:

The appellant requested that the decision under appeal be set aside and that European patent N° 1 471 795 be revoked.



The respondent requested that the appeal be dismissed (main request) or that the patent be maintained on the basis of the claims of one of auxiliary requests 1 to 3 filed with the letter of 17 March 2014.

## Reasons for the Decision

### 1. Amendments

1.1 The appellant asserted that neither all features of claim 1 nor their combination were disclosed in the application as filed. The appellant's objection concerned the following features:

- tumbling and mixing said soft confectionery centers, i.e. a tumbling procedure has been introduced in addition to the mixing procedure in step (a) of claim 1;
- tumbling and mixing at an initial bed temperature of from 0°C to 15°C;
- applying chocolate onto the surface of said tumbling soft confectionery centers to cover the centers with chocolate;
- and their combination.

### 1.2 "Tumbling and mixing"

The appellant argued that the introduction of the term "tumbling and" in step (a) of claim 1 added new matter, basically because a method of "mixing and tumbling" would require different machinery and specific

conditions compared to a "mixing only" method. However, the appellant's argument ignores the technical reality of a process in which confectionery centers are chocolate-coated.

In claim 1 as filed, step (a) refers to mixing said confectionery centers having a specific bed temperature. The term "bed" is used again in dependent claims 5 and 12 and throughout the description. Thus, it is evident to the skilled reader that the method of claim 1 comprises mixing the soft confectionery centers in a bed. In this technical field, or indeed any other similar one, the term "bed" refers simply to a loose mass of centers. Inevitably, if one mixes a bed of a loose mass of centers by any mixing method, then one will also tumble the centers, i.e. rotate the centers about one or more axes. This is consistent with a definition of "tumble" provided by Annex 1, namely "to turn end over end in falling or flight".

Furthermore, the skilled person would recognise that one cannot coat chocolate onto a bed of centers without tumbling the centers to prevent them from sticking together with the chocolate into a single mass. The skilled person simply would not contemplate coating centers in a bed with liquid chocolate unless the centers were being mixed and tumbled. It is simply not possible to perform a bed method of covering confectionery centers in which these centers are mixed without at least some agitation of the centers, which agitation inevitably leads to some degree of end-over-end motion of the centers, i.e. rotation or tumbling about one or more axes of the centers. That is how all bed coating methods work.

Also the appellant's reference to D3 to support its contention that different machinery and conditions are required for a "tumbling and mixing" method as opposed to a "mixing only" method is not convincing. The passage relied upon (page 136, left column) states:

*"When using smooth clean pans, it is preferable to smear a little melted chocolate around the inside and allow it to set thoroughly. This will provide a rough surface to assist tumbling".*

This passage does not state or even imply that no tumbling occurs in smooth pans; the teaching is merely that the degree of tumbling is increased by rough pans. One cannot deduce from that passage that a different apparatus is needed for a "tumbling and mixing method" as opposed to a "mixing only" method.

In view of the above, the term "tumbling and mixing" in claim 1 is directly and unambiguously disclosed in the application as filed.

### 1.3 "Initial bed temperature"

The appellant argued that the introduction into step (a) of claim 1 of the term "initial bed temperature" adds matter (claim 1 as filed merely referred to "bed temperature"). The board disagrees, essentially for the reasons set out in the decision of the opposition division.

Paragraph [0008] of the application as filed discloses that in the method of the present invention soft confectionery centres having a bed temperature of about 0°C to about 15°C are subjected to mixing. The paragraph goes on to state:

"... the soft confectionery centers may be placed into the pan or coating apparatus at a bed temperature which is warmer than desired, ... . The soft confectionery centers are then cooled to **the desired bed temperature prior to the mixing step** or the application of chocolate." (emphasis added).

Clearly, the term "desired bed temperature" is the bed temperature of 0°C to 15°C of the mixing stage as specified in the first sentence of this paragraph.

That paragraph then states:

"Next, chocolate is applied at a temperature of about 36°C to 50°C onto the soft confectionery centers while they are being mixed and simultaneously cooled. ... The chocolate spreads over and coats the soft confectionery centers, raising the bed temperature".

The paragraph then goes on to state:

"In a preferred embodiment, the temperature of the bed is not lowered to its **initial starting point**, i.e. the bed temperature prior to starting the chocolate coating operation" (emphasis added).

It is abundantly clear from the term "i.e." in this sentence that the initial temperature of the bed is synonymous with the bed temperature just prior to the commencement of step (b), namely with the temperature of the bed in mixing step (a). This is corroborated by paragraph [0009] and the example, which disclose that the initial bed temperature of the caramel/soft centers is 10°C. Therefore there is clear and unambiguous basis

for the introduction of the term "initial" into claim 1.

- 1.4 "Applying chocolate onto the surface of said tumbling soft confectionery centers to cover the centers with chocolate"

The appellant objected that the underlined wording that is incorporated into step (c) of claim 1 adds matter.

The board disagrees. It is self-evident to a person skilled in the art that chocolate coating must be applied onto the surface of the centers. This is also directly and unambiguously disclosed in various passages in the application as filed, for example paragraphs [0007], [0009], [0013], and [0019]. The appellant argued that there was no basis in the application as filed for the limitation that the chocolate was applied to the surface of the tumbling centers, because, according to D3, the centers might also be sliding in a pan. However as set out in point 1.2 above, D3 does not disclose that there is no tumbling at all. A person skilled in the art would understand that the possibility that some centers may sometimes slide is not discounted or excluded by the claim. However, given that there is basis in the application as filed for the centers tumbling during mixing, as set out above, and given that paragraph [0008], for example, states that chocolate is applied "... onto the soft confectionery centers while they are being mixed ..." there is clear basis for a method in which the chocolate is coated onto the tumbling centers.

- 1.5 The application as filed discloses in the general description of the invention that it is directed to a

method of coating soft confectionery centers with chocolate which combines the steps of: mixing the soft confectionery centers, applying chocolate onto the soft confectionery centers and cooling the chocolate-covered soft confectionery centers (see paragraph [0006]). As set out above, the step of mixing the soft confectionery centers in a bed implicitly includes tumbling, the initial bed temperature is necessarily of from 0°C to 15°C, and chocolate is obviously applied onto the surface of said tumbling soft confectionery centers. Thus also the combination of the features of claim 1 is directly and unambiguously derivable from the application as filed.

1.6 In view of the above, the board comes to the conclusion that the subject-matter of claim 1 does not extend beyond the content of the application as filed.

2. Inventive step

2.1 In line with the decision under appeal, both parties considered D1 to represent the closest prior art. D1 discloses the production of a chocolate-coated liquid center confectionery product. The liquid center may not only be a syrup but also caramel (abstract), fondant, fruit jams and jellies (column 2, lines 35-38). Thus D1 aims at the preparation of confectionery products similar to the products obtained by the method of claim 1.

More particularly, D1 discloses a coating method for centers which are chilled to a temperature below 32°F (0°C), with an optimum at -20°F (-28.9°C), prior to coating. A thin layer of cheese is applied to the hardened center as a buffer layer, followed by coating with chocolate (claims 1 and 2; column 3, lines 13-14;

examples 1 and 2). The hardened fluid centers are coated in the refrigerated state with chocolate by usual means ranging from hand dipping a thick viscous coating to enrobing and panning (column 2, lines 65-70). In example 1, tumbling the pieces prior to chocolate-coating is explicitly disclosed.

One aspect of the invention of D1 is to create a buffer layer between the frozen center and the outer chocolate coating. This results in a final product with an inner liquid center and an outer shell free of pinholes and cracks (column 3, lines 64-67). In the process of D1, the core center may be, for example, 0°F (-17.8°C) when the buffer contacts the core. It may chill the buffer surface to 30° to 40°F (-1,1 to 4.4°C) which remains relatively congealed and firm when contacting the chocolate coating (column 4, lines 38-46). Thus, according to D1, the surface of the (cheese-coated) center to be coated with chocolate may be at a temperature which overlaps with the initial bed temperature required by claim 1.

In example 1 of D1, the chocolate was heated above its melting point and then cooled to 90.5°F (32.5°C) to obtain proper consistency for depositing. Thus, the temperature of the chocolate to be applied onto the surface of the centers was lower than that required by claim 1. The appellant argued that D1 also disclosed in the passage bridging columns 4 and 5 "summer coatings", namely coatings having a high melting point, e.g. a melting point of about 100°F (37.8°C or higher). However, as apparent from example 1 of D1, the chocolate is not necessarily applied onto the centers at its melting point. In example 1, the chocolate is cooled down before its application.

Lastly, D1 discloses that, where the product is retained under refrigeration, the best product is achieved by first allowing the temperatures to elevate to 60°F, which allows the oils to migrate and reassemble, and after curing for an hour or even longer the temperature of the coated product is reduced to refrigerated storage temperatures of about 40°F (4.4°C).

2.2 There was a dispute between the parties as to whether (i) the cheese-coated centers of D1 were soft confectionary centers within the meaning of claim 1, and (ii) the final refrigeration of the product for storage purposes was part of the actual coating process as required by claim 1. There is, however, no need to elaborate on these points, because in the end the respondent relied on the temperature differential between steps (a) and (b) as the decisive difference for the assessment of inventive step, namely:

- (a) tumbling and mixing the soft confectionery centers takes place at an initial bed temperature of from 0°C to 15°C, and
- (b) applying the chocolate onto the surface of said tumbling soft confectionery centers at a temperature of from 36°C to 50°C.

The technical effect of the claimed method is to coat the soft confectionery centers evenly and homogeneously to the same extent (column 1, lines 45-47) providing thus a smooth and uniform coating of chocolate (column 2, lines 35-37).

2.3 On the one hand, the respondent argued that the technical problem underlying the invention of claim 1



in view of D1 is the provision of a method which provides a smooth and uniform coating of chocolate over soft confectionery centers as set out in paragraph [0007] of the patent.

On the other hand, the appellant argued that the problem to be solved over D1 was merely the provision of an alternative coating method because (i) the problem mentioned in the patent had already been addressed in D1, and (ii) if there were any technical advantage over D1, this had not been demonstrated.

However, the board cannot accept the appellant's arguments for the following reasons:

As to the first argument, the problem referred to in the patent is different from the problem of D1, which aims at an outer shell free of pinholes and cracks (column 3, lines 65-67). D1 definitely does not state that the coating is smooth and uniform. Indeed, a chocolate-coated confectionery center can have a rough bumpy (raspberry-like) surface without any pinholes and cracks. In fact, the coating of chocolate on such cold centers as in D1 can produce non-uniform coating, which is confirmed by the disclosure of D4 (page 290, 4th paragraph) that "... centers that are too cold provoke irregular finishes ...".

As to the second argument, the board admits that the patent does not allow a direct comparison with D1 and that no comparative tests have been submitted. However, various paragraphs in the patent specification recite that the problem mentioned in the patent is indeed solved by the required temperature differential:

[0004]: *"... If the centers are too warm, the chocolate will not solidify quickly enough to adhere properly to the centers. If the product is too cold, the coating tends to rapidly freeze, creating an uneven finish on the center pieces. ..."*

[0007]: *"... However, using the method of the present invention, a smooth uniform coating of chocolate can be applied over the soft confectionery center."*

[0026]: *"Chocolate coating operations using the method of the present invention have been shown to produce smoother center pieces with less rejects. ..."*

This evidence is not invalidated by the fact that it is expressed in words, since there is no specific requirement in the EPC regarding the form of the evidence. Moreover, the appellant has not provided any evidence as regards its own definition of the technical problem being merely an alternative to D1.

- 2.4 In view of the above, the board accepts that the objective technical problem is indeed the problem mentioned in the patent, namely the provision of a method which provides a smooth and uniform coating of chocolate over soft confectionery centers.

As discussed above, this problem is credibly solved by observing the required temperature differential.

- 2.5 The skilled person starting from the method of D1 and aiming at a method which provides a smooth and uniform coating of chocolate over the soft confectionery center would not find any motivation in D1 itself to use the temperature differential of steps (a) and (b). Nor can

such a motivation be found in the other cited documents, namely D2, D3 or D4.

- 2.5.1 D2 concerns a method for coating nuts or seeds by admixing them at a temperature between 180°F (82.2°C) and 280°F (137.8°C) with syrup, e.g. in a rotating pan coater, until the heated syrup is distributed over the nuts or seeds, then applying a cooling gas to the admixture while continuing shear mixing until the coating syrup begins to set (claim 1). Chocolate is an optional additional coating (claim 7).

The optional chocolate coating step is carried out, for example, by syrup coating nuts or seeds cooled to below 75°F (23.9°C), by melting the chocolate in a jacketed container, e.g. at 90-110°F (32.2-43.3 °C) or 100°F (37.8°C) in example III, and spraying the melted chocolate onto the coated nuts or seeds rambling in a shear mixer and then applying cool air (see column 7, lines 9-17).

It is clear from the above that D2 does not relate to the coating of cooled soft confectionery centers. D2 does not provide any motivation for the skilled person to take the chocolate coating temperature (assuming the temperature in the jacketed container is the actual coating temperature) out of the context of D2 and to use it in the process of D1. This approach is based on hindsight. Therefore, the appellant's combination of D1 with D2 must fail.

- 2.5.2 As an alternative to D2, the appellant referred to D3 as a secondary reference.

D3 is a conference article on chocolate panning, which broadly discloses ranges of operational parameters

using chocolate coating. Thus, it summarises the pan-coating process at page 135, left column as a process where suitable centers are tumbled in a rotating pan, melted chocolate is applied to the batch, and the action of tumbling distributes the chocolate as a thin coating on each center. Many different types of centers may be chocolate-coated, *inter alia* jellies, caramels, fudge and creams (page 136, middle column), which are the preferred soft confectionery centers of the patent (see claim 6).

Regarding the temperature at which the chocolate is applied onto the confectionery centers, D3 discloses that the chocolate is cooled to between 95° and 105°F (between 35 and 40.6°C), and that the ideal application temperature is between 90° and 95°F (between 32.2 and 35°C) (page 136, right column; page 137, left column). Thus D3 gives a clear hint in the direction of temperatures lower than those of claim 1.

Regarding the initial temperature of the confectionery centers, D3 discloses that the optimum temperature, depending upon the chocolate viscosity and the shape of the centers, will be in the range of 55-60°F (12.8-15.5°C) (page 136, right column; page 137, middle column). Therefore, the initial bed temperature of D3 greatly overlaps with that of claim 1.

However, D3 does not disclose any passage or working example specifically dealing with chocolate coating of soft confectionery centers, i.e. any indication of the specific temperature differential for this specific application. Again, to extract specific parameters in isolation from D3 and to introduce them in the process of D1 amounts to hindsight. Moreover, D3 does not disclose the technical problem of the patent regarding

the soft confectionery centers. According to D3, for delicate centers such as glacé cherries or liqueurs the batches have to be small, otherwise the stress of tumbling, plus the weight, will distort or break them (page 136, middle column) or a pre-coating will have to be applied to such soft centers, in particular raisins (page 136, right column).

In conclusion, the skilled person would not find in D3 the necessary motivation to replace in the method of D1 the initial bed temperature and the chocolate application temperature in order to arrive at the method of claim 1.

2.5.3 D4 was also used as a secondary reference in the inventive step attack starting from D1 as the closest prior art.

D4 is an extract from a reference book relating to chocolate panning. The disclosure of D4 broadly teaches the ranges of operating parameters used in chocolate pan-coating and is quite similar to the teaching of D3, including a reference to soft centers. But as in D3, there is no passage or working example in D4 specifically dealing with chocolate coating of soft confectionery centers, i.e. no indication of the specific temperature differential for this specific application. Thus, for the same reasons as for D3 there would be no motivation for the skilled person to combine D1 and D4.

2.6 In view of the above, the board comes to the conclusion that the subject-matter of claim 1 involves an inventive step.

3. Dependent claims 2-12, which concern specific embodiments of the method of claim 1, involve an inventive step *mutatis mutandis*.

## Order

### For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

W. Sieber

Decision electronically authenticated