Datasheet for the decision
of 11 December 2012

Case Number: T 0635/11 - 3.3.09
Application Number: 97930982.0
Publication Number: 915662
IPC: A23G 3/00, A23G 3/30

Language of the proceedings: EN

Title of invention:
Sugar coated products and process for preparing the same

Patent Proprietor:
Cadbury Adams USA LLC

Opponents:
Wm. Wrigley Jr, Company
Dr Klusmann Peter (withdrawn)
Dr Kinkeldey, Daniela

Headword:
-

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
"Basis in the application as filed - no (all requests)"

Decisions cited:
-

Catchword:
-
Case Number: T 0635/11 - 3.3.09

DECISION of the Technical Board of Appeal 3.3.09 of 11 December 2012

Appellant: Cadbury Adams USA LLC
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 10 January 2011 revoking European patent No. 915662 pursuant to Article 101(3)(b) EPC.

Composition of the Board:

Chairman: W. Sieber
Members: M. O. Müller
K. Garnett
J. Jardón Álvarez
R. Menapace
Summary of Facts and Submissions

I. This decision concerns the appeal filed by the proprietor (Cadbury Adams USA LLC) of European patent No. 0 915 662 against the decision of the opposition division to revoke the patent.

II. Oppositions were filed by opponent I (Wm. Wrigley Jr, Company), opponent II (Dr. Peter Klusmann) and opponent III (Dr. Kinkeldey, Daniela) requesting revocation of the patent in its entirety on the grounds that the claimed subject-matter was neither novel nor inventive (Article 100(a) EPC; opponents I-III), that the patent did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC; opponents I and III) and that the patent contained subject-matter which extended beyond the content of the application as filed (Article 100(c) EPC; opponents I-III).

III. By its letter of 20 April 2010, opponent II withdrew its opposition.

IV. The opposition division's decision, announced orally on 14 December 2010 and issued in writing on 10 January 2011, was based on a main request (claims as granted) and first to fifth auxiliary requests.

(a) Claim 1 as granted (main request) read as follows:

"1. A sugar coated product which comprises an edible core material, the surface of which is coated with a moisture evaporated hard coating
composed of a sugar alcohol, a layer of said hard coating containing an acidic sour agent."

(b) Each claim 1 of the first, second, fourth and fifth auxiliary requests contained the additional feature:

"wherein the hard coating is composed of separate and independent layers containing:
(a) a sugar alcohol; and
(b) a solid sour agent selected from the group consisting of citric acid, malic acid and tartaric acid, or mixtures thereof; coated on the surface of the edible core material."

(c) Claim 1 of the third auxiliary request was identical to claim 1 of the main request except that it additionally required the sour agent to be present in an amount of 0.9 to 5.0% by weight of the sugar coated product.

V. The opposition division's position can be summarized as follows:

The subject-matter of the main request and the third auxiliary request lacked novelty over O6 (US 4,828,845 A) and, as far as the main request is concerned, over D1 (JP 8-70792 A).

The first, second, fourth and fifth auxiliary requests did not meet the requirements of Article 123(2) EPC. Claim 1 of these requests encompassed various embodiments including one comprising a hard coating.
composed of alternating separate and independent layers, some layers containing a sugar alcohol, others a solid sour agent, and yet others both a sugar alcohol and a sour agent. Page 5, lines 19-25 of the application as filed disclosed layers composed of separate sugar alcohol and sour agent layers but did not provide a basis for additional layers containing both a sugar alcohol and a sour agent. Hence, the above embodiment of claim 1 was not based on the application as filed.

VI. On 16 March 2011, the proprietor (in the following: the appellant) filed a notice of appeal against the above decision and paid the prescribed fee on the same day. In the statement setting out the grounds of appeal, filed on 18 May 2011, the appellant requested inter alia the maintenance of the patent in the form of the first auxiliary request before the opposition division (main request), and submitted:


VII. On 26 September 2011 and 3 October 2011, opponents III and I (in the following: respondents III and I) filed their responses to the grounds of appeal and respondent I filed:


VIII. By communication dated 20 March 2012, the board issued its preliminary opinion. The board noted that it would
have to be discussed during the oral proceedings whether **inter alia** the feature in claim 1 of the main request "wherein the hard coating is composed of separate and independent layers containing: (a) a sugar alcohol; and (b) a ... sour agent" finds support in the application as filed.

IX. By its letter of 9 November 2012, the appellant filed a new main request and new first to seventh auxiliary requests.

X. On 11 December 2012, oral proceedings were held before the board.

At the beginning of the oral proceedings, the board drew the appellant's attention to an inconsistency between the explanation of the amendments as contained in the appellant's letter of 9 November 2012 and the actual text of the amended claims as annexed to this letter.

Subsequently, the appellant filed a new main request as well as new first, second and third auxiliary requests and maintained previous fourth to seventh auxiliary requests. As to the wording of these requests, reference is made to points 3.1, 4.1, 5, 6.1 and 7, below.

The respondents requested that the main request be not admitted into the proceedings.
XI. In as far as relevant to the present decision, the appellant's arguments can be summarized as follows:

(a) Main request

The main request meets the requirements of Article 123(2) EPC. Claim 1 of this request is based on page 5, lines 9-13 itself or in conjunction with the remaining part of the application as filed. The passage on page 5, lines 9-13 discloses a hard coating that is predominantly composed of sugar alcohol. The wording "a layer of said coating" in this passage implies the presence of more than one layer. The wording "containing a sour agent" implies in turn that the sour agent has to be present in at least one of these layers, either alone or together with sugar alcohol. The remaining part of the application as filed discloses the feature of separate and independent layers of claim 1. More particularly, a process is described where first a sugar alcohol solution is applied, subsequently moisture is evaporated and thereafter a sour agent is added in a separate step. Due to the fact that the moisture is evaporated before the sour agent is added, separate and independent layers are formed.

(b) First and second auxiliary requests

The first and second auxiliary requests meet the requirements of Article 123(2) EPC. In particular claim 1 of these requests is based on page 5, lines 9-13 of the application as filed. This
passage discloses a coating of sugar alcohol layers of which one contains additionally a sour agent.

A further basis is present on page 6, lines 8-17 of the application as filed. This paragraph details the addition of a sugar alcohol to the surface of a core material, then separately applying a sour agent to the surface of the core material. Moisture is evaporated only after the sour agent has been added. This results in the formation of a single layer containing a mixture of both the sugar alcohol and the sour agent, corresponding to the single layer (a) defined in claim 1. Then, subsequent to the evaporation of moisture, the step of applying the saccharide solution is repeated, thus forming one or more layers containing sugar alcohol alone. This corresponds to layer (b) of claim 1.

(c) Third auxiliary request

The third auxiliary request meets the requirements of Article 123(2) EPC. Claim 1 of this request is based on page 7, line 23 to page 8, line 9 of the application as filed. This passage discloses applying a saccharide solution containing a sugar alcohol alone on the surface of the core material, and during the subsequent step wherein moisture is evaporated, a separately prepared sour agent is added over the surface of the core material and these procedures, ie adding layers of sugar alcohol alone and sour agent alone, are repeatedly carried out to form a hard coating over the
surface of the core material. Thereby, alternating layers of sugar alcohol and solid sour agent are formed, as required by claim 1 of the third auxiliary request.

XII. In as far as relevant to the present decision, the respondents' arguments can be summarized as follows:

(a) Main request

The main request should not be admitted into the proceedings. This request was not identical to any of the previous requests, as claim 1 additionally contained the feature "a plurality of".

Claim 1 of the main request does not meet the requirements of Article 123(2) EPC. The passage on page 5, lines 9-13 does not provide a basis for this claim as this passage does not necessarily disclose more than one layer and furthermore it does not disclose the feature that the sour agent layer is independent from the sugar alcohol layer. If at all, such separate and independent layers are disclosed in the application as filed only in some specific embodiments. The appellant had tried to mosaic together some of these specific process embodiments into an intermediate generalisation by combining them with the general passage on page 5, lines 9-13.

Irrespective of this, the application as filed does not provide a basis for the embodiment covered by claim 1 of a product containing three different types of coating layers, namely one
being composed of sugar alcohol alone, another being composed of sour agent alone and a third type being composed of both the sugar alcohol and the sour agent.

(b) First and second auxiliary requests

The first and second auxiliary requests do not meet the requirements of Article 123(2) EPC. The passage on page 5, lines 9-13 referred to by the appellant cannot provide a basis for claim 1, as it does not disclose the feature of a plurality of separate and independent layers.

Furthermore, the passage on page 6, lines 8-17 cannot provide a basis either. The disclosure in this passage of separately applying the sour agent points to separate sugar alcohol and sour agent layers rather than mixed layers. In fact, the appellant is reading into the text something that may or may not happen. This is however not what the requirement of being clearly and unambiguously derivable means.

(c) Third auxiliary request

The third auxiliary request does not meet the requirements of Article 123(2) EPC. In particular, the passage on page 7, line 23 to page 8 line 9 referred to by the appellant cannot provide a basis for claim 1 of this request. It is in particular not clearly and unambiguously derivable from this passage that separate and independent layers are formed. This is due to the fact that
the sour agent is already added during the evaporation of moisture while, as explained by the appellant, separate and independent layers only form if the sour agent is added after the evaporation of moisture.

XIII. During the oral proceedings the board additionally observed that in the process described on page 7, line 23 to page 8, line 9 of the application as filed, the sugar alcohol layer is not fully dried when the sour agent is added. Therefore if anything, it may be assumed that the sour agent mixes with the sugar alcohol at the layer interface such that a concentration gradient arises. The sugar alcohol and sour agent layers resulting from this process therefore are not separate and independent.

XIV. The appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request filed during the oral proceedings, alternatively on the basis of the first to third auxiliary requests filed during the oral proceedings, alternatively on the basis of the fourth to seventh auxiliary requests filed with letter of 9 November 2012.

XV. The respondents requested that the appeal be dismissed.
Reasons for the Decision

1. The appeal is admissible.

Main request

2. Admissibility

2.1 The present main request was filed by the appellant during the oral proceedings before the board. The respondents requested that this request be not admitted into the proceedings.

2.2 The present main request differs from the previous main request filed with letter of 9 November 2012 in that claims 4 and 5 have been deleted and the sour agent in claim 1 has been defined as being a solid sour agent. This amended definition was filed in reaction to the observation made by the board at the beginning of the oral proceedings (see point X above) that there was an inconsistency between the explanation of the amendments as contained in the appellant's letter of 9 November 2012 and the actual text of the amended claims as annexed to this letter.

Furthermore, this amended definition was already present in the first auxiliary request before the opposition division (point IV(b) above), a request which was also the appellant's initial main request in the appeal proceedings (point VI above).

2.3 The respondent argued that the present main request additionally differed from the previous main request filed with letter of 9 November 2012 in that the term
"a plurality of" has been added before the wording "separate and independent layers" in claim 1. In fact, however, this term was already present in claim 1 of the previous main request as annexed to the letter of 9 November 2012.

2.4 Consequently, the respondents were not confronted with any new matter which they could not be expected to deal with during the oral proceedings. The board therefore decided to admit the new main request into the proceedings.

3. **Amendments - Article 123(2) EPC**

3.1 Claim 1 refers to "A sugar coated product which comprises an edible core material, the surface of which is coated with a moisture evaporated hard coating wherein the hard coating is composed of a plurality of separate and independent layers containing:

(a) a sugar alcohol; and

(b) a solid sour agent selected from the group consisting of citric acid, malic acid and tartaric acid, or mixtures thereof;

coated on the surface of the edible core material." (emphasis added).

3.2 The appellant argued that claim 1 is based on page 5, lines 9-13 of the application as filed, which reads as follows:

"... sugar coated product which comprises an edible core material, the surface of which is coated with a hard coating composed of a sugar alcohol, a layer of said hard coating containing a sour agent".

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An identical wording is present in claim 1 as filed (in the following, reference will only be made to page 5, lines 9-13 when discussing this passage).

3.2.1 This passage, and in particular the disclosure of "a hard coating composed of a sugar alcohol, a layer of said hard coating containing a sour agent" is ambiguous as to whether the hard coating is composed of only one layer comprising both the sour agent and the sugar alcohol or, as argued by the appellant, the hard coating is composed of a plurality of layers, eg one containing the sour agent and another containing the sugar alcohol. This ambiguity precludes this passage from being a clear and unambiguous disclosure of a plurality of layers as required by claim 1.

Furthermore, there is no disclosure at all in this passage that the layers (if any) are separate and independent, as opposed eg to layers with a gradual compositional change from one layer to the next.

3.2.2 This passage thus cannot provide a basis for claim 1.

3.3 The appellant further argued that the feature of separate and independent layers is derivable from the remaining part of the application as filed. Claim 1 is therefore said to be based on the passage on page 5, lines 9-13 in conjunction with the remaining part of the application as filed.

The remaining part of the application as filed describes specific process variants by which coated products are prepared, rather than defining any product.
features (such as separate and independent layers). In order to decide whether page 5, lines 9-13 in conjunction with the remaining part of the application as filed can provide a basis for the products of claim 1, an analysis is therefore needed as to which product features result from these process variants.

3.3.1 In a first process variant of the application as filed, a saccharide solution containing both the sugar alcohol and the sour agent is repeatedly coated on a core material. This variant is disclosed on page 5, lines 14-18 and claim 2 (without repetition of coating steps), page 5, line 26, to page 6, line 7, page 6, lines 18-26, page 7, lines 12-22, examples 1-4, and claim 5 of the application as filed.

This process results in a coated product with one type of coating layer, namely containing both the sugar alcohol and the sour agent. The resulting product can be illustrated by the following graphical representation:

```
<table>
<thead>
<tr>
<th>Sugar alcohol + sour agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar alcohol + sour agent</td>
</tr>
<tr>
<td>Sugar alcohol + sour agent</td>
</tr>
</tbody>
</table>

Core
```

3.3.2 In a second process variant disclosed on page 5, lines 19-25, page 7, lines 1-11, and claim 3 as filed, first, a sugar alcohol solution alone is applied and subsequently the sour agent solution is added separately and, in the case of page 7, lines 1-11, these process steps are repeated after an evaporation step.
Due to the separate application, the sour agent may be assumed to form a separate and independent layer. Under this assumption, the product obtained in this process variant contains two types of separate and independent coating layers, namely a separate sugar alcohol layer and a separate sour agent layer. This is graphically shown in the following illustration:

```
Sugar alcohol

Sour agent

Sugar alcohol

Core
```

However, due to the fact that moisture is evaporated only after the application of the sugar alcohol and the sour agent, one may equally assume that the sour agent will mix into the still wet sugar alcohol such that exclusively layers containing both the sugar alcohol and the sour agent are formed. In this case, a product as already described for the above first process variant would be obtained.

3.3.3 A third process variant, disclosed on page 6, lines 8-17, and claim 6 as filed, comprises the steps of first applying the sugar alcohol solution, then, without intermediate evaporation of moisture, separately adding the sour agent solution, and subsequently thereto evaporating moisture and then repeating the application of the sugar alcohol solution and evaporation.

In this case the sugar alcohol coating is still liquid when the sour agent is applied. Consequently, as argued by the appellant, the sour agent may penetrate
completely into the sugar alcohol layer such that one single layer containing both the sugar alcohol and the sour agent is formed. The result would be a product containing two types of separate and independent layers, namely a first layer containing both the sugar alcohol and the sour agent and further layers containing the sugar alcohol alone. This can be illustrated as follows:

| Sugar alcohol | Sugar alcohol | Sugar alcohol + sour agent (mixed) | Core |

However, it may equally be possible, eg where the sugar alcohol solution and/or the sour agent solution have rather high viscosities, that the two coating solutions do not mix completely but only partially at the layer interface. In this case, a concentration gradient is present at the interface of the two layers such that they are not separate and independent.

Finally, at a high viscosity of the sugar alcohol and/or sour agent solution, it may also be possible that no intermixing occurs at all, in which case a product with a separate and independent sugar alcohol layer and a separate sour agent layer is obtained. This product, which contains two types of coating layers, can be illustrated as follows:
3.3.4 The application as filed finally discloses a fourth process variant where the sugar alcohol solution is first applied, then moisture is evaporated and during this evaporation step, the sour agent is added. In this case, the sugar alcohol layer will not be fully dried when the sour agent is applied. As a result thereof, the sugar alcohol and sour agent most likely will not mix completely but only partially at the layer interphase. The resulting sugar alcohol and sour agent layers will thus have a concentration gradient at the layer interphases and hence will not be separate and independent. This variant is disclosed on page 7, line 23, to page 8, line 9.

3.4 Thus, from the above analysis, it follows that the application as filed exclusively discloses the preparation of specific products that do not contain separate and independent layers and/or that contain one or two types of separate and independent coating layers. Contrary thereto, claim 1 is more general and, as set out by the respondents and the opposition division (point 2.2 on page 12 of the opposition division's decision), and as not disputed by the appellant, covers products with eg three types of separate and independent coating layers, namely a first layer containing a sugar alcohol alone, a second layer containing a sour agent alone, and a third layer containing...
containing both a sugar alcohol and a sour agent. An example of such a product is shown below:

<table>
<thead>
<tr>
<th>Sugar alcohol</th>
<th>Sour agent</th>
<th>Sugar alcohol</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ sour agent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Claim 1 thus represents an intermediate generalisation between, on the one hand, the very general, and in fact ambiguous, passage on page 5, lines 9-13 of the application as filed and, on the other, the specific products that are disclosed by way of their preparation in the remaining part of the application as filed.

Therefore, claim 1 of the main request does not meet the requirements of Article 123(2) EPC.

First auxiliary request

4. Amendments - Article 123(2) EPC

4.1 Claim 1 of the first auxiliary request refers to "A sugar coated product which comprises an edible core material, the surface of which is coated with a moisture evaporated hard coating wherein the hard coating consists of only a plurality of separate and independent layers containing:

a) a single layer containing a sugar alcohol and a solid sour agent selected from the group consisting of citric acid, malic acid and tartaric acid, or mixtures thereof; and

b) one or more layers containing sugar alcohol alone
coated on the surface of the edible core material" (emphasis added).

4.2 The appellant argued again that claim 1 is based on page 5, lines 9-13 of the application as filed. As however already set out above, this passage does not provide a clear and unambiguous disclosure of a plurality of separate and independent layers. This passage therefore cannot provide a basis for claim 1.

4.3 During the written proceedings (letter of 9 November 2012), the appellant had additionally argued that claim 1 is based on page 6, lines 8-17 of the application as filed. This passage has already been discussed in point 3.3.3 above. As set out there, depending on whether it is assumed that the sour agent and sugar alcohol will mix completely, partially, or not at all:

- a product results containing a layer comprising both the sugar alcohol and the sour agent and containing further layers comprising the sugar alcohol alone (see the first graphical representation in point 3.3.3 above);

- a product results having a concentration gradient at the interphase of the sugar alcohol and sour agent layer such that the layers are not separate and independent; or

- a product results containing a first sugar alcohol layer, a separate sour agent layer, and further sugar alcohol layers (see the second graphical representation in point 3.3.3 above).
4.4 Only the first possibility leads to a product as defined in claim 1. Hence, the appellant's interpretation of page 6, lines 8-17 in fact represents one out of three possibilities that may happen when the process disclosed in this passage is carried out. The appellant's approach is thus nothing more than speculation about what may or may not happen on the basis of this disclosure. The appellant is thereby reading more into the passage than what is actually disclosed. This is however not what the requirement of being clearly and unambiguously derivable from the application as filed means.

Consequently, the passage on page 6 of the application as filed cannot provide a basis for claim 1.

4.5 As the remaining part of the application as filed does not provide any such basis either, claim 1 does not meet the requirements of Article 123(2) EPC.

Second auxiliary request

5. Amendments - Article 123(2) EPC

Claim 1 of the second auxiliary request contains the same features as indicated above (point 4.1) in bold type for claim 1 of the first auxiliary request. Consequently, for the same reasons as given above with regard to the first auxiliary request, claim 1 of the second auxiliary request does not meet the requirements of Article 123(2) EPC.
Third auxiliary request

6. **Amendments - Article 123(2) EPC**

6.1 Claim 1 of the third auxiliary request refers to "A sugar coated product which comprises an edible core material, the surface of which is coated with a moisture evaporated hard coating wherein the hard coating consists of a plurality of separate and independent layers: wherein the separate and independent layers each individually contain only one of:

   a) a sugar alcohol; or
   b) a solid sour agent selected from the group consisting of citric acid, malic acid and tartaric acid, or mixtures thereof; coated on the surface of the edible core material, wherein the separate and independent layers alternate between layers individually containing (a) and layers individually contain (b)." (emphasis added).

6.2 The appellant exclusively relied on the paragraph bridging pages 7 and 8 of the application as filed as a basis for this claim. This passage discloses a process wherein a sugar alcohol solution is applied over the surface of an edible core material, eg in a rotary pan, and during the subsequent step wherein moisture is evaporated, a sour agent separately prepared or a solution thereof is added and then these procedures are repeatedly carried out to form a hard coating on the surface of the core material.

However, it is nowhere disclosed in this passage that separate and independent layers are formed. The
appellant's assumption that such separate and independent layers are the inherent result of the process described in this passage is again mere speculation as to what may (or may not) happen when this process is carried out. In fact, as has already been set out in point 3.3.4 above, if anything, it must be assumed that no separate and independent layers but layers with a concentration gradient at their interfaces are obtained.

6.3 The passage bridging pages 7 and 8 therefore cannot form a basis for claim 1.

6.4 As none of the other passages in the application as filed contain a clear and unambiguous disclosure of the product of claim 1 either, claim 1 does not meet the requirements of Article 123(2) EPC.

Fourth to seventh auxiliary requests

7. Claim 1 of the fourth, fifth and sixth auxiliary requests is identical to claim 1 of the main request, first auxiliary request and second auxiliary request, respectively. Claim 1 of the seventh auxiliary request contains the same feature as indicated above in bold type (point 6.1) for claim 1 of the third auxiliary request. Hence, for the same reasons as given above with regard to claim 1 of the main, first, second and third auxiliary requests, claim 1 of the fourth, fifth, sixth and seventh auxiliary requests does not meet the requirements of Article 123(2) EPC.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:  The Chairman:

M. Canueto Carbajo   W. Sieber