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**Datasheet for the decision
of 29 September 2011**

Case Number: T 0728/09 - 3.3.09

Application Number: 01959585.9

Publication Number: 1313373

IPC: A23G 3/20

Language of the proceedings: EN

Title of invention:

Continuously forming coated center-filed gum products

Patentee:

Cadbury Adams USA LLC

Opponent:

Wm, Wrigley Jr, Company

Headword:

-

Relevant legal provisions:

EPC Art. 54, 83, 111

Relevant legal provisions (EPC 1973):

-

Keyword:

"Main request: sufficiency of disclosure (yes); novelty (yes)"
"Remittal for further prosecution"

Decisions cited:

G 0009/91

Catchword:

-



Case Number: T 0728/09 - 3.3.09

D E C I S I O N
of the Technical Board of Appeal 3.3.09
of 29 September 2011

Appellant: Cadbury Adams USA LLC
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Wilmington, DE 19808 (US)

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Charles House
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Respondent: Wm, Wrigley Jr, Company
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Representative: -

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
12 March 2009 concerning maintenance of
European patent No. 1313373 in amended form.

Composition of the Board:

Chairman: W. Sieber
Members: N. Perakis
K. Garnett

Summary of Facts and Submissions

I. Mention of the grant of European patent No 1 313 373 in respect of European patent application No 01959585.9 in the name of Cadbury Adams USA LLC, which had been filed as international application No. PCT/US2001/024672 on 7 August 2001, was published on 7 June 2006 (Bulletin 2006/23). The patent was granted with twelve claims, independent method Claim 6 reading as follows:

"6. A method for continuously producing coated pieces of liquid-filled tablet-type gum material comprising the steps of:

supplying a rope of liquid-filled gum material;
sizing said rope of liquid-filled gum material;
feeding said rope of liquid-filled gum material
into a tablet-forming mechanism; characterized by:

forming individual pieces of liquid-filled
gum material from said rope of gum material
in said tablet-forming mechanism, said
individual pieces of gum material having
substantially curved non-flat exterior
surfaces;
cooling said formed pieces of gum material;
and coating said individual pieces of gum
material with a hard coating."

II. The opponent, Wm Wrigley Jr Company Limited, requested revocation of the patent insofar as it contained Claims 6 to 10, which were directed to a method for continuously producing coated pieces of liquid-filled tablet-type gum material. The opposition grounds were

lack of novelty and of inventive step (Article 100(a)) and insufficiency of disclosure (Article 100(b)). Together with the notice of opposition, the opponent *inter alia* filed the following documents:

- D1: JP 26 5888;
- D1a: English translation of D1;
- D3: J. Flanyak, "Panning Technology: An Overview", *The Manufacturing Confectioner*, January 1998, 65-74;
- D4: US 1 771 981 A;
- D5: US 3 806 290 A; and
- D6: US 4 301 178 A.

By letter dated 9 January 2009, the opponent filed additional documents:

- D8: Statement by the translator of D1 dated 4 December 2008; and
- D9: GB 711 187.

By letter dated 9 January 2009 the patent proprietor filed first to fourth auxiliary requests. During the oral proceedings held before the opposition division on 12 February 2009 the patent proprietor filed a new second auxiliary request and abandoned the third and fourth auxiliary requests.

III. In its interlocutory decision announced orally on 12 February 2009 and issued in writing on 12 March 2009, the opposition division held that:

- the invention of Claim 6 of the main request was sufficiently disclosed and therefore fulfilled the requirements of Article 83 EPC;

- however, the subject-matter of Claim 6 lacked novelty in view of the disclosure of D1;
 - the subject-matter of Claim 6 of the first auxiliary request did not satisfy the requirements of Articles 123(2) and (3) EPC; and
 - the subject-matter of the second auxiliary request, which did not contain granted (and contested) Claims 6 to 10 any more (but included an adapted description), met the requirements of the EPC.
- IV. The patent proprietor (appellant) filed an appeal against the decision of the opposition division on 30 March 2009 and paid the appeal fee on the same day.
- V. The statement setting out the grounds of appeal was filed on 2 July 2009. The appellant's main request was to maintain the patent as granted. Failing this, it was requested that the patent be maintained in the form of the first auxiliary request as filed on 9 January 2009 or in the form of the second auxiliary request filed with the grounds of appeal. While the appellant agreed with the opposition division's decision regarding the issue of sufficiency of disclosure of the main request, it contested the decision as regards the issue of novelty.
- VI. By letters dated 23 November 2009 and 16 September 2011 the opponent (respondent) filed observations to the appeal. Although the respondent concurred with the opposition division's decision regarding the issue of novelty of the main request, it contested it regarding the issue of sufficiency of disclosure. Furthermore, it contested the admissibility of the second, fourth and fifth auxiliary requests in the appeal proceedings.

- VII. By letter dated 23 August 2011 the appellant filed new second to fifth auxiliary requests, whereby the third auxiliary request corresponded to the previous second auxiliary request.
- VIII. Oral proceedings were held on 29 September 2011 before the board.
- IX. The relevant arguments put forward by the appellant in its written submissions and at the oral proceedings may be summarised as follows:
- The opposition division correctly considered that the invention of Claim 6 was sufficiently disclosed. Beside the specifically disclosed tablet-forming apparatus, namely the subject-matter of dependent Claim 8, such technology had been well-established since the 1950s and the skilled person would consequently have been aware of alternative suitable ways to that of Claim 8.
 - The opposition division was wrong in considering that the method of Claim 6 lacked novelty over D1/D1a:
 - This document did not disclose a method for continuously producing coated pieces of liquid-filled tablet-type gum material but rather a batch process.
 - Additionally it did not disclose individual pieces "having substantially" curved non-flat exterior surfaces, an expression equivalent to "consisting essentially of" such surfaces.

- Finally D1/D1a neither explicitly disclosed a hard coating nor was such a hard coating implicit from the disclosure of D1/D1a, contrary to the assertions in D8 by the translator of D1. His translation expertise was not denied but he was not the skilled person in the art.

X. The arguments put forward by the respondent in its written submissions and at the oral proceedings can be summarised as follows:

- The invention of Claim 6 was not sufficiently disclosed over the whole breadth of the claim. Only one way of producing coated pieces of liquid-filled tablet-type gum material was disclosed, that of dependent Claim 8, in which the tablet-forming apparatus contained two sets of rotating chains, which included mating die groove members which together formed die cavities of the desired pellet shape and type.
- Additionally the method of Claim 6 lacked novelty in view of the disclosure of D1/D1a taking into consideration the statement of the translator of D1, namely D8:
 - Firstly, D1 disclosed a continuous method since, in the same manner as the claimed method, it allowed short interruptions.
 - Secondly, D1 disclosed individual pieces of gum material having "substantially curved non-flat exterior surfaces". The surfaces of the tablets in Figures 2 to 4 of D1/D1a had a certain degree of curvature and thus fell within the claimed subject-matter. But even if this feature was

interpreted in the way argued for by the appellant, it still lacked novelty since the surfaces of the tablets in Figures 2 to 4 were curved and fell within the definition of "having substantially" curved non-flat exterior surfaces.

- Finally, the sugar coating of D1 would implicitly be understood by the skilled person in the art to be hard. The reason was that soft coatings, known at the filing date of D1, were difficult to make and the skilled person would not have used them. Furthermore the implicit disclosure of a hard coating is confirmed in D8 by the translator of D1, this translator being a person skilled in the art of Japanese translations.

XI. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the case be remitted to the opposition division for further examination of inventive step on the basis of the claims as granted, alternatively on the basis of the first auxiliary request filed with letter dated 9 January 2009 or on the basis of the second to fifth auxiliary requests filed with the letter dated 23 August 2011.

The respondent (opponent) requested that the appeal be dismissed, alternatively, in the event of the decision being set aside, that the case be remitted to the opposition division for further examination.

Reasons for the Decision

1. The appeal is admissible.

2. *Extent of scrutiny*

Opposition was filed only against granted Claims 6 to 10, directed to a method for continuously producing coated pieces of liquid-filled tablet-type gum material. The opposition division, on the basis of G 9/91 (OJ EPO 1993, 408), correctly examined and decided on the maintenance of the opposed European patent under Articles 101 EPC having regard to the extent to which the patent was opposed in the notice of opposition pursuant to Rule 76(c) EPC. The board is also limited by G 9/91 to this extent of scrutiny.

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

Article 83 EPC requires that the European patent application, and by extension the European patent, must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

The board acknowledges that the method of Claim 6 is not limited to any specific forming of the rope of gum material, this being the fundamental objection of the respondent. A specific tablet-forming mechanism which leads to the formation of individual pieces by introducing the gum rope between two rotating chain mechanisms, each of the chain mechanisms having open die groove members, is, however, part of dependent Claim 8. This specific mechanism is also described in

paragraphs [0024] to [0026] of the patent in suit. Thus the patent discloses at least one complete and clear manner to carry out the claimed invention.

The general definition of the tablet-forming mechanism starting from the rope of gum material in independent Claim 6 does not, however, mean that the claimed invention lacks sufficiency of disclosure over the whole claimed breadth of the invention, contrary to the argument of the respondent, which was that the skilled person would not know how to carry out the invention if he did not use the specific feature of Claim 8.

The board in agreement with the appellant and the opposition division considers that individual pieces of liquid-filled chewing gum material have been produced since at least the 1950s (see for example D1 [published in 1951]: page 2, third line from the bottom to page 3, line 8; D5 [published in 1974]: Figure 1, unit 40; column 2, lines 36-31; column 3, lines 14-24; claim 12; and D6 [published in 1981]: abstract; column 6, lines 3-19). Therefore the technology for forming these pieces was a well-established part of the state of the art and available to the skilled person at the date of filing of the patent in suit. Also the patent itself alludes to the existence of other systems in the art for forming liquid-filled gum, in paragraph [0004]:

"There are numerous mechanisms and systems known today for forming liquid filled gum ... One of these systems is shown, for example, in U.S. Patent No. 3,857,963 to Graff-et al."

The skilled person would thus have been very aware of alternative suitable ways of forming the liquid-filled gum tablets into individual pieces at the filing date of the patent, and the skilled person would have had at his disposal sufficient information about how to carry out the method of the invention over the entire scope of Claim 6.

The board accepts that paragraph [0006] of the patent in suit refers to difficulties encountered in the state of the art during the production of three-phase gum products having a liquid-filled centre portion, a second layer of chewing gum or bubble gum material, and a hard outer shell or coating. These difficulties relate to significant problems relating to maintaining the liquid-filled centre portion intact without leaking and providing commercially acceptable finished surfaces on the final coated products. The content of this paragraph does not, however, bring into question the feasibility of the manufacture of three-phase gum products by a tablet-forming method different from that specified in Claim 8 and paragraphs [0024] to [0026] of the patent in suit. It rather appears to relate to the question whether or not the technical problem is solved over the entire scope of the claim, an issue which might become relevant in the assessment of inventive step.

On the basis of the above considerations the board comes to the conclusion that the claimed invention fulfils the requirements of Article 83 EPC.

4. *Novelty (Article 54 EPC)*

4.1 The respondent contested the novelty of the method of Claim 6 only on the basis of the disclosure of D1 based on its English translation D1a and the explanations provided by the translator in his statement dated 4 December 2008 (D8).

4.2 The board concurs with the parties and the opposition division that D1a (see page 2, paragraph with the heading "Abstract of Aspects and Object of the Invention; page 3, Claim) discloses a preparation method for confectionery-containing chewing gum, comprising the steps of:

- supplying a rope of liquid-filled gum material,
- sizing the rope of liquid-filled gum material,
- feeding said rope of liquid-filled gum material into a tablet-forming mechanism,
- forming individual pieces of liquid-filled gum material from said rope of gum material in said tablet-forming mechanism,
- cooling said formed pieces of gum material, and
- coating said individual pieces of gum material with a sugar coating.

The actual dispute regarding the issue of novelty during the proceedings before the opposition division and the board concerned the following three features of Claim 6:

- (i) a method for **continuously** producing coated pieces of liquid-filled tablet-type gum material;

- (ii) individual pieces of gum material having **substantially** curved non-flat exterior surfaces; and
- (iii) coating individual pieces of gum material with a **hard** coating.

4.3 The appellant alleges that D1a does not illustrate a continuous process because the hoppers in Figure 5 of D1a are closed and therefore the process has to be interrupted to refill the hoppers (see also the explanations on page 2, under the "Detailed Explanation of the Invention", lines 3-7).

4.3.1 However, the method of Claim 6 permits some short interruptions, as disclosed in paragraph [0028], in relation to storing or transporting the pieces of the formed gum material in a storage container before being fed to the coating tunnel or mechanism. The reference in Claim 6 to a method for **continuously** producing coated pieces has therefore to be understood as permitting this kind of interruption.

4.3.2 Thus the fact that the hoppers of D1a have to be refilled on occasion does not necessarily mean that the disclosed method has to be regarded as non-continuous or as a batch process, i.e. not as being a process for **continuously** producing material in the sense of Claim 6. The key steps of forming a continuous rope and then forming the continuous rope into individual pellets as described is clearly a continuous process even if it has to be interrupted occasionally to refill the hoppers.

4.3.3 Hence, the board considers that D1a discloses feature (i), namely a method for **continuously** producing coated pieces of liquid-filled tablet-type gum material.

4.4 Furthermore, the board in agreement with the respondent and the opposition division considers that D1a also discloses feature (ii), namely that the individual pieces of gum material have substantially curved non-flat exterior surfaces.

4.4.1 The meaning of the feature "individual pieces of gum material having substantially curved non-flat exterior surfaces" first needs to be established.

4.4.2 The parties have put forward different interpretations. The Board considers that the issue at stake is whether the word "substantially" qualifies the verb "having", so that the feature concerns pieces of gum material each having a curved non-flat exterior extending substantially over all its surface or whether this term qualifies the expression "curved non-flat exterior surfaces", so that the feature concerns pieces of gum material the surfaces of which are substantially curved.

4.4.3 The board considers that an interpretation according to which a substantial part of the exterior surface of the piece of gum material is curved and non-flat is the most plausible. Not only does this interpretation have a clear technical significance but in addition it is in full agreement with the description (paragraph [0029]) which recites:

"As shown in Figure 5, the upper and lower surfaces 62 and 64, respectively, of the cavity 60 have curved

configurations. Also, the surfaces 62 and 64 can be continuously curved without any flat or planar portions or areas, or at least with a minimum of flat areas (preferably less than 10% of the total surface area of each surface 62 and 64). This is opposed to flat or uncurved surfaces 62A and 64A of conventional tablet and pellet-forming mechanisms."

The term "substantially" thus directly qualifies the term "having" and relates to the amount of curved non-flat exterior surface of each individual piece of gum material.

- 4.4.4 Regarding the disclosure of D1a (Figures 2-4) in respect of feature (ii) the board considers that the disclosed gum tablet has a curved non-flat exterior over substantially all its surface. Thus, in Figure 2 (see also explanations on page 2, under the heading "Brief Explanation of the Drawings", line 1 and "Detailed Explanation of the Invention", lines 1-3) the tablet precursor has the cylindrical shape of the initial rope, represented as a two dimensional cross sectional view in the longitudinal direction of the rope. The two ends of the tablet precursor have a conical shape as a result of the preliminary compression with a trapezoidal die (see page 3, lines 9-12) which enables the formation of the flat portions (3) on each side of the precursor, these flat portions being devoid of the confectionery filling material (2) (page 3, lines 12-16). The precursor of the gum tablet as illustrated in Figure 3 (see also explanations on page 2, under the heading "Brief Explanation of the Drawings", lines 3-4 and page 3, lines 3-6), and represented always as a two-dimensional cross-sectional

view in the longitudinal direction of the rope, still has substantially curved non-flat exterior surfaces, though not cylindrical any more but rather in the form of a rugby ball as the result of the compression with a die - which obviously is not the trapezoidal die used in Figure 2. The die cleaves the chewing gum mass via the formation of a triangular ridge at the center of the flat compressed parts (3) and so separates the individual tablets (page 3, lines 3-6 and 16-20). This form is maintained after separation of each individual gum tablet as illustrated by Figure 4.

4.4.5 In view of the above considerations the board rejects the argument of the appellant that there was an inconsistency between the technical content of the figures of D1a and the interpretation of the claim because of the flat upper portion of the gum rope in Figure 2. The board remarks that Figures 1 to 4 are two-dimensional representations of three-dimensional articles. Figure 1 shows a rope of gum, i.e. a long cylindrical strip of gum. Therefore in Figures 1 to 4 the gum has a curved surface originating from the circular cross section of the rope. Apart from its two ends, a cylinder clearly has curved non-flat exterior over substantially (in fact all) its surface even though in one particular cross sectional view, taken along the length of the cylinder, it may look as if the surface is flat.

4.4.6 Additionally there are sound technical reasons why a difference in shape can be seen in the cross sections shown in Figures 2, 3 and 4. A rope of chewing gum has a certain degree of flexibility and flowability, especially when still warm and being formed into

individual pieces. As indicated in D1a (page 3, first paragraph) the rope of Figure 2 is pressed with a die that cleaves the chewing gum mass via the formation of a triangular ridge at the center of the flat compressed parts (3). The gum will flow away from the triangular ridge and towards the center part of the pellet, which will therefore tend to be pushed away from the axis of the cylindrical rope, imparting curvature to the upper and lower surfaces. This explains why the pellets shown in Figures 3 and 4 have curved upper and lower surfaces, even in the two-dimensional representations shown in these figures.

4.4.7 The description of the patent in suit itself takes into account the flowability of the gum material while it is being moulded - as disclosed in D1a - leading to curved surfaces after moulding. Thus, paragraph [0029] (see above point 4.4.3) indicates that the surfaces (62) and (64) of the mould cavity may have some flat areas. Preferably less than 10% of the total surface area of each surface is flat. If, as the appellant argued, all surfaces of the tablets formed by the claimed method were curved, then clearly there would be some flow after the moulding step had occurred.

4.4.8 In view of the above considerations the board concludes that also feature (ii) of Claim 6 is disclosed by D1a.

4.5 Concerning feature (iii) the board considers that D1a does not directly and unambiguously disclose a hard coating for the individual pieces of gum material.

4.5.1 In the context of the coating, D1a expressly discloses on page 2, first paragraph, lines 8-9:

"... the cooled solidified chewing gum tablets are sugar-coated".

Exactly the same terminology is used on page 3, lines 6-8:

"After the tablet 4 is cooled in a refrigerator until the outer skin of the chewing gum mass is hardened, it is coated with sugar coating 5 on its surface";

and in the claim (page 3, penultimate and last lines):

"... a sugar-coating is applied to the cooled hardened product".

The board notes that the word "hard" is nowhere to be found in D1a and that the feature (iii) is thus not explicitly disclosed by D1a.

- 4.5.2 Furthermore the board does not concur with the respondent that the expression "sugar-coating" in D1a would be implicitly understood by the skilled person directly and unambiguously to mean a "hard" coating.

The appellant pointed out that the sugar-coating of D1a could be of any kind of sugar coating, i.e. a hard or a soft coating or even a sugar dusting. Although the board tends to agree with the opposition division and the respondent that sugar dusting as described in D9 is a different process to sugar coating, it is nevertheless the case that D1a fails to disclose anything with regard to the hard/soft nature of the coating.

The respondent did not contest that soft sugar-coatings were already known in the art; the argument rather was that soft sugar-coatings were difficult to make.

However, the fact that the manufacture of soft sugar-coatings may have been difficult can have no impact on whether or not such coatings were in fact made. In the absence of any precise disclosure in D1a itself, there is no reason to assume that the skilled person would have concluded from these difficulties that the coating in D1a necessarily had to be a hard coating.

- 4.5.3 The opposition division decided that D1a implicitly disclosed a hard coating because it was common practice at the time of filing of D1 only to use soft coatings on soft centres and correspondingly only to use hard coatings with hard centres. Thus the opposition division concluded that the applicant in D1a would have intended a hard coating to be applied to the hard centre disclosed therein. D3 (page 70, left-hand column, last full paragraph) was referred to as evidence of this.

However, all that the relevant passage in D3 discloses is that:

"A soft center, in general, requires a soft coating."

In contrast to the opposition division's assertion, D3 does not actually establish that all hard centres have hard coatings applied to them. The relevant statement discloses only that a soft centre, in general, requires a soft coating, which in fact allows for soft centres to have alternative, non-soft, coatings. Furthermore,

this passage refers exclusively to soft centres and gives no specific disclosure with regard to hard centres and/or hard coatings.

4.5.4 Nor does the board concur with the respondent that the disclosure of D9 (page 1, lines 68-75), which dates from 1952 and which refers to gums formed into lumps coated with a hardened sweetened coating, corresponds to the normal type of coating available at that time. D9 is a single document from that time and cannot be used, in the absence of any disclosure in it regarding to what was then considered as normal coating, to arbitrarily designate the sugar coating of D1a as hard. As already set out above, D3 discloses that soft coatings had been known for a long time and the respondent itself referred to the difficulty of manufacture of such soft coatings. Therefore this argument is rejected.

4.5.5 Additionally the respondent argued that D8 alone was sufficient evidence of the implicit disclosure of a hard coating in D1a. The translator of D1 states in D8 (fourth paragraph):

"The English language translation indicates in the first paragraph on page 2, at the end of the first paragraph on page 3 and at the end of the claim, that a sugar coating is applied. The Japanese word used is ... which literally means "sugar covering". In my experience this word is always used to mean the normal sugar coating used on pills, confectionery of the type known as Smarties and chewing gum tablets. Therefore this word implies that a hard sugar layer is provided. The layer is not a simple sugar dusting since if this

was meant another Japanese expression could have been used, for example"

The board accepts that the translator is a person skilled in the art of Japanese translation. However, the Japanese word used in the original document D1 is stated in D8 to mean literally "sugar covering". This literal translation does not give any indication of whether or not the coating is hard. While the translator gives his opinion that the Japanese word is always used to mean the "normal sugar covering used on pills, confectionary of the type known as Smarties, and chewing gum tablets", the conclusion which he draws, namely that a hard sugar layer is being described, is a matter of implication only, as indeed the translator accepts. Further, the translator's opinion of what constitutes "normal" types of sugar coatings and what word in Japanese most appropriately describes such coatings, is partly technical - and therefore outside his area of expertise. Additionally it appears to be based on his understanding as of today's date and does not necessarily correspond with what the position was at the filing date of D1.

Finally, the board remarks that the burden of proof for lack of novelty is high, specifically "beyond reasonable doubt", and that a clear and unambiguous disclosure is required. Mere supposition of a fact, or even likelihood of this fact, as the translator states in D8, is not sufficient to give rise to lack of novelty.

4.6 In view of the above considerations the subject-matter of Claim 6 is novel over D1/D1a. Furthermore, novelty

has not been challenged in view of any other cited document and the board confirms that none of these documents is novelty destroying.

5. *Remittal*

Since the issue of inventive step has neither been dealt with in the decision under appeal nor in the appeal proceedings, the board will remit the case to the opposition division for further prosecution, this also being in accordance with the request of both parties.

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 for further examination.

The Registrar:

The Chairman:

A. Counillon

W. Sieber