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**Datasheet for the decision  
of 19 February 2009**

**Case Number:** T 0029/07 - 3.3.09

**Application Number:** 95306436.7

**Publication Number:** 0763329

**IPC:** A23G 3/30

**Language of the proceedings:** EN

**Title of invention:**

Chewing gum manufacture using high efficiency continuous mixer

**Patentee:**

WM. WRIGLEY JR. COMPANY

**Opponent:**

Cadbury Schweppes Plc

**Headword:**

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**Relevant legal provisions:**

EPC Art. 54, 56, 123(2)

**Relevant legal provisions (EPC 1973):**

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**Keyword:**

"Main request - Novelty (no)"

"First auxiliary request - Article 123(2) (yes), Novelty (no)"

"Second auxiliary request - Novelty (yes), Inventive step  
(yes)"

**Decisions cited:**

-

**Catchword:**

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Case Number: T 0029/07 - 3.3.09

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.09  
of 19 February 2009

**Appellant 2:** Cadbury Schweppes Plc  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
10 November 2006 concerning maintenance of  
European patent No. 0763329 in amended form.

**Composition of the Board:**

**Chairman:** P. Kitzmantel  
**Members:** N. Perakis  
W. Sekretaruk

## Summary of Facts and Submissions

I. Mention of the grant of European patent No 0 763 329 in respect of European patent application No 95306436.7 in the name of WM. WRIGLEY JR. COMPANY, was announced on 26 November 2003 (Bulletin 2003/48). The patent entitled "Chewing gum manufacture using high efficiency continuous mixer" was granted with eleven claims. Independent Claims 1 and 10 read as follows:

"1. A method of manufacturing chewing gum comprising the steps of:

- (a) providing a high efficiency continuous mixer (100) comprising i) ingredient feed ports (212, 232, 242, 252, 262), each port having at least one opening into the mixer; ii) mixing elements (124); and iii) at least one conveyor element (125) on a screw (120) of the mixer; wherein at least one conveyor element (125) is located so that a majority of said element extends beyond the wall of said feed port (262), such that the majority of that conveyor element is not directly under an ingredient feed port;
- (b) either
  - (i) adding to the mixer (100), a finished gum base; or
  - (ii) adding to the mixer (100), and mixing together at least one elastomer and filler; adding at least one ingredient selected from the group consisting of fats, oils, waxes and elastomer plasticizers, and mixing said ingredient(s) with the elastomer and filler in the mixer (100); and

(c) adding at least one sweetener and at least one flavour, and mixing the sweetener and flavour with the other ingredients to form said chewing gum product, wherein after ingredients are added to the mixer, they are subjected to the conveyor element on the screw."

"10. A single high efficiency continuous blade-and-pin chewing gum mixer (100) which can be used to manufacture chewing gum including gum base comprising:

ingredient feed ports (212, 232, 242, 252, 262) each port having at least one opening into the mixer,  
mixing elements (124), and  
at least one conveyor element (125) on a screw (120) of the mixer which is located so that a majority of said element extends beyond the wall of a feed port (262), wherein the majority of that conveyor element is not directly under said port, and wherein the mixing is performed in a zone having a length to diameter ratio of not more than 40."

II. A Notice of Opposition was filed against the patent by Cadbury Schweppes Plc on 26 August 2004. The Opponent requested the revocation of the patent in its entirety, relying on Article 100(a) EPC, namely that the claimed subject-matter did not involve an inventive step.

The opposition was supported by the following documents:

O7 : P.H.M. Elemans *et al*, "On the Modeling of Continuous Mixers. Part II: The Cokneader",

Polymer Engineering and Science, Mid-August 1990,  
30(15), pp 893-904

O8 : Eduard Strebel, "Kontinuierlicher Misch- und  
Knetprozess - eine Neuheit?", Zucker- und Süßwaren  
Wirtschaft, 7 August 1988, pp 252-254

O8A: English translation of O8

O9 : "EXTRUSION: does chewing gum pass the taste test?",  
Food Manufacture, September 1987, pp 47-50

O11: WO 95/10194

III. With letter of 17 October 2006 the Patent Proprietor  
filed a new main and four auxiliary requests. From  
these requests only the main, the first and the second  
auxiliary requests were dealt with in the appealed  
decision.

Independent apparatus Claim 9 of both the main and  
first auxiliary request was identical with granted  
independent apparatus Claim 10.

Independent method Claim 1 of the second auxiliary  
request corresponded to granted independent method  
Claim 1 with the limitation in item (a) of the high  
efficiency continuous mixer (100) "that is a blade-and-  
pin mixer".

IV. By an interlocutory decision orally announced on  
19 October 2006 and issued in writing on 10 November  
2006 the Opposition Division maintained the patent in  
amended form on the basis of Claims 1 to 8 of the  
second auxiliary request.

The Opposition Division considered that the blade-and-  
pin mixer of Claim 9 of both the main and first

auxiliary request lacked novelty over 07. The reasons were that 07 (i) disclosed a Buss co-kneader with a conveyor element whose location vis-à-vis a feed port fell within the definition given in Claim 9, and (ii) this Buss co-kneader was considered to be suitable for the production of chewing gum.

With regard to the method of manufacturing a chewing gum according to Claim 1 of the second auxiliary request the Opposition Division considered that it was novel and involved an inventive step. Concretely, it considered 08 to represent the closest state of the art from which the claimed method differed in the location of the conveyor element relative to the feed port. The location of that element was also considered to meet the set objectives of improved throughput, reduced overmixing and prevention of backup of solid ingredients. This solution was considered to be non-obvious over the state of the art. According to the Opposition Division 07 did not address the manufacture of chewing gum or any comparable technical problem, and 09 pointed towards the use of a twin-screw extruder and failed to disclose the claimed location of the conveyor element.

- V. On 10 January 2007 the Patent Proprietor (Appellant 1) lodged an appeal against the decision of the Opposition Division and paid the appeal fee on the same day. The Statement of grounds of appeal was filed with letter dated 5 March 2007.

The Patent Proprietor refuted the conclusions of the Opposition Division with regard to the apparatus Claim 9 of the main request. It essentially argued that the

screw design disclosed in 07 would not provide any significant mixing action and for that reason would be unsuitable for the manufacture of chewing gum.

With the letter of 5 March 2007 the Patent Proprietor filed sets of claims for two auxiliary requests. The first auxiliary request was identical with the main request with the exception of Claim 9 whose subject-matter was limited over that of Claim 9 of the main request and reads as follows (the amended/additional features have been emphasized by the Board):

"9. A single high efficiency continuous blade-and-pin chewing gum mixer (100) (*deleted: which can be*) used to manufacture chewing gum including gum base comprising:

ingredient feed ports (212, 232, 242, 252, 262) each port having at least one opening into the mixer,  
mixing elements (124), and  
at least one conveyor element (125) on a screw (120) of the mixer which is located so that a majority of said element extends beyond the wall of the feed port (262), wherein the majority of that conveyor element is not directly under said port, and wherein the mixing is performed in a zone having a length to diameter ratio of not more than 40 *said mixer containing chewing gum ingredients.*"

The second auxiliary request was identical to the second auxiliary request of the appealed decision, whose subject-matter did not contain claims to the mixing apparatus and was found by the Opposition

Division to meet the requirements of the EPC. Claims 1 to 8 of this request were identical to Claims 1 to 8 of the main request in appeal.

VI. On 3 January 2007 the Opponent (Appellant 2) lodged an appeal against the decision of the Opposition Division and paid the appeal fee on the same day. The Statement of grounds of appeal was filed with letter dated 20 March 2007.

With a letter dated 16 February 2009 the Opponent submitted document O12, which diagrammatically demonstrated potential arrangements of conveyor elements and feed ports, which might or might not fall within the scope of Claim 1, in support of its arguments concerning the interpretation of the claimed location of the conveyor element(s) in respect of the feed port(s).

VII. Oral proceedings were held before the Board on 19 February 2009.

VIII. The arguments put forward by the Appellant 1 (Patent Proprietor) in its written submissions and at the oral proceedings can be summarized as follows:

- The subject-matter of independent method Claim 1 of all requests and of independent apparatus Claim 9 of the main and the first auxiliary request contained features concerning the location of at least one conveyor element, according to which this element extends beyond the wall of a feed port, wherein the majority of that element is not directly under said port. These features should be interpreted in the



sense that that conveyor element stretched away from the feed port area with the understanding that insofar as part of it was located under the feed port, this was not the major part of it because its majority was not directly under that port.

- On the basis of that interpretation neither 07 nor 09 were relevant to the novelty of the subject-matter of Claim 9 of the main and the auxiliary request.
- With regard to 09, the figure on page 47 did not directly and unambiguously disclose a Buss blade-and-pin kneader. Rather it was more likely that it corresponded to a twin-screw extruder, because the most relevant information on page 50 (left hand column) referred to findings obtained with the aid of a double screw extruder.
- Nor did the mention of "Glycerin" in that figure link it unambiguously with the recipe set out for a Buss kneader on page 49, left hand column, because glycerin was a standard ingredient of chewing gums irrespective of its manufacturing method.
- Furthermore that figure provided a schematic design and did not specifically identify any conveyor, even less a conveyor extending beyond the feed port whose majority was not directly under that port.
- With regard to 07, figure 4 on page 894 did not relate to a blade-and-pin mixer for chewing gum manufacture but to a Buss co-kneader with a screw geometry ("standard" screw geometry) devised to model the flow of model liquids by checking and evaluating important geometrical parameters.
- Moreover the screw profile of figure 4 was inadequate for chewing gum manufacture because it comprised a large number of conveyor elements

compared to the number of mixing elements and thus would not provide sufficient mixing action for the notoriously difficult to mix chewing gum ingredients.

- The subject-matter of Claim 9 of the first auxiliary request fulfilled the requirements of Article 123(2) EPC. This claim specified the apparatus when in use. This subject-matter was supported by the patent application considered as a whole.
- The subject-matter of Claim 9 of the first auxiliary request was novel over 07 and 09 because these documents failed to disclose an extruder containing chewing gum ingredients.
- The subject-matter of Claim 1 of the second auxiliary request was novel over 07, which did not disclose a method for manufacturing chewing gum. It was also novel over 09 because the extruder depicted in the figure on page 47 did not directly and unambiguously disclose a conveyor element, even less a conveyor meeting the claimed spatial arrangement.
- The subject-matter of Claim 1 of the second auxiliary request also involved an inventive step.
- The aim of the claimed invention was to provide the possibility of manufacturing a chewing gum from a gum base made *in situ* avoiding the overmixing (overheating) problems related to a high screw speed. Such a high speed caused increased shear and friction, generating temperatures that risked to damage some of the heat sensitive ingredients of the chewing gum such as sweeteners and flavours introduced downstream of the gum base addition or manufacture.
- None of the cited documents related to the complete chewing gum manufacture in a single extruder.

- Thus O8 seemed to represent a more reasonable starting document for the development of a screw profile sufficiently versatile to make a chewing gum from scratch but did not disclose the claimed screw profile.
- Furthermore, O7 provided no motivation to apply the disclosed screw profile to the method of O8, since no importance was placed on the conveyor elements and no suggestion was made for any practical application of the disclosed screw profile. Its use for the chewing gum manufacture according to O8 in order to solve the problem relating to downstream overmixing was not obvious.
- In fact the "standard screw" geometry of the Buss co-kneader disclosed in O7 was the geometry of the screw profile taken as a standard in order to carry out the theoretical modelling of a Buss extruder: This expression did not mean that the profile was standard for any application.
- Finally O11 disclosed the manufacture of gum bases and not chewing gums. Anyway it did not teach to place the conveyors at the feed ports for sugar and flavours. Therefore the skilled person would also not consider this document.

IX. The arguments put forward by Appellant 2 (Opponent) in its written submissions and at the oral proceedings can be summarized as follows:

- The definition of the location of the conveyor element on the screw of a mixer specified in Claims 1 and 9 of all requests did not differ from the location disclosed in O7 and O9. The expression "the majority of the conveyor element extends beyond the

wall of a feed port" would not be interpreted by the skilled reader in the limitative manner put forward by the Patent Proprietor. Actually, the plain meaning of that expression was that the location of the conveyor element was not confined with respect to the feed port but could be placed anywhere along the screw. That expression comprised alternatives in which a conveyor with its minor portion overlaps the feed port area while with its major portion still extends beyond (see 012).

- Paragraph [0034] of the opposed patent specified that during operation the mixing screw moved back and forth in an axial direction, which meant that even if the majority of the conveyor was not directly under the feed port in one position, this might be the case during operation.
- Furthermore, figure 8 of the opposed patent depicted two neighbouring conveyor elements (125) one of them being totally and directly under the feed port, thus not fulfilling the claimed requirement.
- The subject-matter of independent apparatus Claim 9 of the main request lacked novelty over the individual disclosures of 07 and 09.
- 07, in particular figure 4, disclosed a Buss kneader which according to the description of the opposed patent (paragraph [0024]) fell within the definition of the apparatus of Claim 9. In fact the Buss kneader of 07, which had a standard screw geometry and was thus conventional, could be used in many operations such as the processing of polymers and foodstock. It was therefore suitable for chewing gum manufacture.
- 09 disclosed the claimed apparatus, ie a Buss kneader, since the figure on page 47 mentioned a

"Glycerin" ingredient which according to the recipe of page 49, left hand column, was specially destined for utilisation in a Buss kneader. Furthermore, according to that figure, the angle at which the blades were positioned and their distance at the inlet zone of the gum base made it clear that this part of the screw arrangement, which extended beyond the wall of the feed port, was a conveyor element transporting the material downstream to the plasticizing and kneading zones.

- The subject-matter of Claim 9 of the first auxiliary request was not supported by the originally filed application and contravened the requirements of Article 123(2) EPC. The feature that the mixer contained chewing gum ingredients was an unallowable generalisation.
- This subject-matter was also lacking novelty over 07 because the additional features did not distinguish it from the subject-matter of Claim 9 of the main request which was anticipated by 07's disclosure.
- The subject-matter of Claim 1 of the second auxiliary request also lacked novelty over the disclosure of 09. As already said, according to the figure on page 47 there was a conveyor element on the screw placed at the inlet zone which met the location requirements as set out in Claim 1.
- The process of Claim 1 of the second auxiliary request lacked inventive step over the combination of 09 with 07 or 08 with 07 or 08 with 011 or even 011 alone.
- Both 09 and 08 disclosed a continuous method for making chewing gum possibly using a Buss kneader. The claimed method was distinguished from those disclosures in the specific position of the conveyor

versus the feed port. The skilled person looking for an alternative method to make chewing gum with increased throughput and reduced over-mixing would certainly consult 07 for a suitable screw configuration. The reason was that the device disclosed in 07 for the processing of polymers and foodstock was also applicable to the processing of elastomers for chewing gums. The skilled person would thus find in 07 the claimed positioning of the conveyor element which increased the kneader throughput. He would then obviously combine it with the teaching of 08 or 09 without exercising any inventive skill.

- This conclusion was furthermore reinforced by the qualification in 07 of the depicted screw geometry of a Bush kneader having the relevant conveyor element arrangement as a "standard" one.
- The solution to the set problem of increased throughput could also be found in 011 which disclosed a continuous gum base manufacture using a continuous mixer including conveyor elements at feed inlet sections and conveyor elements extending immediately beyond the feed inlet in order to quickly move material into the body of the extruder.
- 011 could also be considered as the closest state of the art. In that case the claimed method was distinguished by the use of a Buss blade-and-pin kneader instead of a twin screw extruder. The use of such a single screw extruder was however obvious to the skilled person.

X. The Appellant 1 (Patent Proprietor) requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request filed on

17 October 2006, or on the basis of auxiliary request 1 filed on 5 March 2007, or on the basis of auxiliary request 2 filed on 17 October 2006 (the request considered allowable by the Opposition Division in the decision under appeal).

- XI. The Appellant 2 (Opponent) requested that the decision under appeal be set aside and that the European patent No 0763 329 be revoked.

### **Reasons for the Decision**

1. Admissibility of the appeal

The appeal is admissible.

#### ***Main request***

2. *Novelty - Article 54 EPC*

- 2.1 The subject-matter of independent Claim 9 relates to an apparatus suitable for the manufacture of chewing gum. It is a single continuous blade-and-pin mixer comprising ingredient feed ports, mixing elements and at least one conveyor element on a screw of the mixer. This conveyor element is located so that a majority extends beyond the wall of a feed port and is not directly under said port.

- 2.2 The Board in agreement with the Patent Proprietor construes this arrangement and particularly the term "extends beyond" to mean that the conveyor element is placed on the screw shaft in a way that it either

begins directly adjacent to the wall of the feed port or at a position within the extension of the feed port entry and stretches away therefrom in the axial direction constituting thereby a conveyor section whose major axial extension is not under the feed port entry but reaches away therefrom. The Opponent's argument that the back- and forward oscillation of the screw in operation would render this definition meaningless cannot, in the Board's judgment deprive this definition of its meaning because the skilled practitioner will consider this to apply to the initial working position of the screw. The Opponent's criticism is therefore unfounded.

- 2.3 Under these circumstances the Board considers that the subject-matter of Claim 9 is anticipated by the disclosure of 07 (page 893, left hand column, paragraph 1; page 894, Section "Screw geometry and working principle"; Figure 4).

This document discloses a Buss co-kneader which is a specific embodiment of the claimed single high-efficiency continuous blade-and-pin chewing gum mixer (see description paragraphs [0018] and [0028]; figure 1). Furthermore, Figure 4 discloses a screw geometry with at least one conveyor element being placed according to the wording of Claim 9.

07 furthermore discloses that a Bush co-kneader is widely used in many operations in the processing of polymers and foodstock and offers possibilities for homogenization and especially filling of difficult-to-handle compounds of thermoplastics, rubbers or thermosets (page 893, left hand column, paragraph 1).



The elastomers conventionally used in the chewing gums are difficult to handle polymers. Thus the Board concludes that the apparatus of 07 is suitable to be used for the manufacture of chewing gum.

- 2.4 The Patent Proprietor essentially contested the suitability of the disclosed Buss co-kneader for the manufacture of chewing gum in view of its proportionally greater number of conveyor elements. The Board, however, does not concur with the Patent Proprietor because the subject-matter of present Claim 9 does not contain any feature restricting the number of conveyor elements and because there is not one chewing gum and one production apparatus; rather for each type of chewing gum a variety of processing parameters has to be taken into account with the consequence that the number of conveying elements is not a limiting characteristic.
- 2.5 Since 07 discloses the apparatus of Claim 9, the subject-matter of this claim lacks novelty and the main request is rejected.
- 2.6 Contrary to the allegations of the Opponent, the apparatus of Claim 9 is not anticipated by the disclosure of 09 (page 49, figure; page 49, right hand column, Section "Which extruders"; page 49, left hand column, Recipe for a Buss kneader). Though this document discloses a Buss kneader and its use for the manufacture of chewing gum, it does not directly and unambiguously disclose the claimed location of at least one conveyor element in respect of a feed port.

Most importantly, the schematic design of the figure does not directly and unambiguously correspond to a Buss kneader. On the contrary, one might argue that it rather corresponds to a double-screw extruder because the experimental work referred to on page 50, full left hand column, which discusses the functions performed by various zones of the extruder, was carried out on a 22D double screw-extruder. Thus the reference in said figure to the addition of "Glycerin" cannot be interpreted in an unambiguous manner to be linked to the recipe for a Buss kneader set out on page 49, left hand column. As correctly stated by the Proprietor glycerin is a common ingredient of chewing gums and its utilisation is not as such dependent on any particular manufacturing equipment.

Moreover, the location of the conveyor element or elements under the feed port at the right part of the depicted screw is not according to that of Claim 9, namely such that a majority of the conveyor element extends beyond the feed port. The alleged conveyor element or elements at the left part of the screw is/are also not located as claimed because it/they does/do not extend beyond the wall of a feed port but it/they is/are located far downstream from the last feed port.

***First auxiliary request***

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

- 3.1 The subject-matter of independent Claim 9 of the first auxiliary request differs from that of the main request in that it has been restricted so that the mixer is

used to manufacture chewing gum and in that it contains chewing gum ingredients.

- 3.2 The Board in agreement with the Patent Proprietor acknowledges that the claimed subject-matter fulfils the requirements of Article 123(2) EPC. The feature that the mixer contains chewing gum ingredients is supported by the whole content of the patent specification which does not disclose a specific chewing gum composition but one which comprises conventional ingredients.

4. *Novelty - Article 54 EPC*

In the same way as the corresponding subject-matter of the main request the apparatus of Claim 9 of the first auxiliary request is also anticipated by the disclosure of document 07 (see points 3.1 to 3.4 above). The chewing gum ingredients, which are occasionally present in it - namely during its use for the manufacture of chewing gum - are not structural features of the claimed apparatus and they do not limit its definition. Consequently the subject-matter of Claim 9 of the first auxiliary request is not novel and this request is rejected.

***Second auxiliary request***

5. *Novelty - Article 54 EPC*

The subject-matter of Claim 1 of the second auxiliary request relates to a method of manufacturing chewing gum. It is novel over the cited state of the art, since none of them discloses a method of manufacturing

chewing gum using a Buss (blade-and-pin) kneader with the claimed arrangement of at least one conveyor element in respect of a feed port.

Documents 08 (page 252, right hand column to page 253, left hand column, section "Die Bedürfnisse des Kaugummi-Herstellers"; page 254, figure) and 09 (see point 3.6 above) disclose a method for the manufacture of chewing gum using a Buss kneader but they do not disclose the claimed conveyor element and feed port arrangement.

Document 07 which discloses a Buss co-kneader does not disclose a method of manufacturing chewing gums using it.

Inversely 011 (claims 1 and 2; page 4, lines 15-20; page 10, line 22 to page 11, line 12; page 14, line 5 to page 15, line 4; page 15, line 36 to page 16, line 8; Figure 1) discloses a method of manufacturing chewing gum which does not involve the use of a blade-and-pin mixer but rather of a double screw extruder which according to Figure 1 has conveyor elements on both screws whose position with regard to the feed port is in accordance with the currently claimed blade-and-pin mixer arrangement.

6. *Inventive step - Article 56 EPC*

6.1 08 and 09, which both disclose a method of manufacturing chewing gum and use a Buss kneader to perform that method are equally considered to represent the closest state of the art.

The claimed method differs from the one disclosed in 08 and 09 only in the definition of the location of at least one conveyor element in respect of a feed port.

- 6.2 The technical problem to be solved by the claimed invention is the provision of a continuous method for the manufacture of chewing gum using a mixer which does not overmix (ie overheat) the chewing gum ingredients (see patent specification, paragraph [0012]), the overmixing (overheating) being detrimental to the temperature sensible ingredients of the chewing gum such as sweeteners and flavour (see patent specification, paragraphs [0002], [0016] and the submissions made by the Patent Proprietor at the oral proceedings which were not contested by the Opponent).

The solution of this technical problem is provided by the specific location of at least one conveyor element on the screw shaft of the extruder.

The Board is satisfied that the opposed patent provides evidence that the set technical problem has indeed been solved (see Example 2).

- 6.3 Account being taken of all the arguments of the Appellant, the Board arrives at the conclusion that the skilled person starting from 08 or 09 and seeking to provide a continuous method of manufacturing chewing gum using a Buss extruder which does not overmix the temperature sensible ingredients of the chewing gum would not find any pointer in the state of the art leading him in the direction of the claimed invention, namely to adapt the mixer in such a manner that at least one conveyor element is located so that a

majority of said element extends beyond the wall of a feed port, such that the majority of that conveyor element is not directly under an ingredient feed port.

- 6.4 The Opponent has referred to O7. However, the skilled person would not have considered O7 because it does not disclose the use of the Buss kneader for the preparation of chewing gum. Furthermore, the specific configuration of the screw in figure 4 of O7 relates to a "standard screw", which as already explained refers to a model screw for the specific study carried out in that document. Thus to the Board's understanding the term "standard" cannot be interpreted to relate to a standard screw geometry also applicable to chewing gum manufacture. This is also supported by the fact that the different screw design used for linear low-density polyethylene illustrated by Figure 13 (page 901) is also designated as "standard screw geometry".

Furthermore, according to the disclosure of O8 (see O8A: page 2, section "The needs of the chewing gum manufacturer", last paragraph) and O9 (page 47, right hand column, to page 48, left hand column, full Section "Which extruders") there is no standard screw geometry for a Buss extruder. On the contrary the geometry has to be specifically adapted to the specific needs of the product and process chosen.

- 6.5 The Opponent also referred to O11. However, figure 1 of this document, though it discloses the claimed arrangement of conveyor elements with respect to a feed port, discloses this configuration in combination with a twin screw extruder (see also page 10, lines 22-30). The Board does not find in O11 any hint to the skilled

person to use the specific arrangement in a single screw extruder whose rheological conditions are entirely different from those of a single screw blade-and-pin mixer. Thus this line of argumentation of the Opponent is based on hind-sight.

6.6 Consequently the Board considers that the subject-matter of the second auxiliary request involves also an inventive step.

### **Order**

**For these reasons it is decided that:**

The appeals are dismissed.

The Registrar:

The Chairman:

G. Röhn

P. Kitzmantel