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**Datasheet for the decision
of 6 June 2024**

Case Number: T 1292/22 - 3.3.09

Application Number: 11852656.5

Publication Number: 2658387

IPC: A23G3/34, A23G3/42

Language of the proceedings: EN

Title of invention:
HARD CANDY WITH REDUCED SUGAR

Patent Proprietor:
Wm. Wrigley Jr. Company

Opponent:
Südzucker Aktiengesellschaft Mannheim/Ochsenfurt

Headword:
Hard candy/WRIGLEY

Relevant legal provisions:
RPBA 2020 Art. 12(2), 12(4), 12(6)
EPC Art. 54(2), 56, 83

Keyword:

Admittance of documents filed with the statement setting out the grounds of appeal - (no)

Main request: Sufficiency of disclosure, novelty and inventive step - (yes)

Decisions cited:

Catchword:



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Case Number: T 1292/22 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 6 June 2024

Appellant: Südzucker Aktiengesellschaft
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
1 March 2022 concerning maintenance of the
European Patent No. 2658387 in amended form.**

Composition of the Board:

Chairman A. Haderlein
Members: A. Veronese
N. Obrovski

Summary of Facts and Submissions

I. The appeal was filed by the opponent (appellant) against the opposition division's decision finding that the European patent as amended according to auxiliary request 1 filed during the oral proceedings before the opposition division met the requirements of the EPC.

II. Claim 1 of this request reads:

*"1. A hard candy composition, comprising:
a) a bulking sweetener agent, comprising isomaltulose, trehalose, erythritol or combinations thereof; and
b) inulin (such as branched or linear inulin);
wherein the bulking sweetener agent to inulin ratio is 70/30 to 40/60 dry solids wt%".*

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

IV. The documents submitted during the opposition proceedings included:

D4: US 7,186,431 B1

D5: US 2010/0203190 A1

D9: US 2006/0222754 A1

D10: WO 2006/119991 A1

D11: US 2010/0112142 A1

V. In its decision, the opposition division found *inter alia* that:

- auxiliary request 1, filed during the oral proceedings before the opposition division was to be admitted into the opposition proceedings
- the claimed invention was sufficiently disclosed; there was no evidence that the claimed hard candy could not be prepared; the issue of whether the purported effects could be achieved concerned inventive step, not sufficiency of disclosure
- the claimed subject-matter was novel over D3, D4 and D5
- the claimed subject-matter involved an inventive step starting from D9 or, alternatively, from D10 as the closest prior art

VI. With its statement setting out the grounds of appeal, the appellant filed the following documents:

D12: US 2006/0286248 A1

D13: US 7,147,883 B1

D14: WO 2010/031528 A1

VII. With its reply to the statement setting out the grounds of appeal, the proprietor (respondent) filed auxiliary requests I to IX.

VIII. The appellant's submissions relating to the main request can be summarised as follows.

- D12 to D14 had to be admitted into the appeal proceedings.

- The claimed invention was not sufficiently disclosed across the entire scope claimed. The patent acknowledged that some candies according to the invention could not be prepared. Furthermore, there was no evidence that the claimed candies solved the underlying technical problem.
- The composition according to claim 1 was not novel over D4 and D12.
- The claimed subject-matter did not involve an inventive step considering any of documents D9, D10, D12 and D13 as closest prior art. In particular, it did not involve an inventive step over a combination of D9 with D5, D11 or D12 or over a combination of D10 with D5 and D14.

IX. The respondent's submissions relating to the main request can be summarised as follows.

- D12 to D14 and the novelty and inventive step attacks based on them should not be admitted into the appeal proceedings. There was no reason to file new documents and formulate new attacks in appeal.
- The claimed invention was sufficiently disclosed. The patent provided sufficient information to prepare the claimed hard candy. There was no evidence to the contrary, and certainly not in paragraphs [0032] and [0064] of the patent. Whether certain effects mentioned in the patent were achieved was irrelevant to the issue of sufficiency.

- The claimed hard candy was novel over D4, which did not disclose a hard candy comprising a combination of the relevant ingredients in the claimed ratio.
- The claimed subject-matter involved an inventive step. D10, rather than D9, was the closest prior art. The claimed candy differed from that of D10 in the higher amount of inulin. Neither D10 alone nor combined with D5 provided any incentive to increase the amount of inulin. Similar conclusions were drawn starting from D9 as closest prior art.

The requests

- X. The appellant requested that the decision under appeal be set aside and that the patent be revoked in its entirety.
- XI. The respondent requested that the appeal be dismissed, the patent being maintained on the basis of the auxiliary request 1 considered allowable by the opposition division - main request - or, alternatively, that the patent be maintained on the basis of auxiliary requests I to IX, all filed with the reply to the statement setting out the grounds of appeal.

Reasons for the Decision

Main request

- 1. *Admittance of D12 to D14*
- 1.1 The appellant filed D12 to D14 with its statement setting out its grounds of appeal and relied on these documents to present new novelty and inventive step

attacks. The respondent requested that these documents and the attacks based on them not be admitted.

Document D12

- 1.2 D12 was relied on to substantiate new novelty and inventive step attacks. According to the appellant, this document was filed to address the opposition division's finding, during the oral proceedings, that claim 1 was limited to a hard candy and did not encompass a composition suitable for manufacturing a hard candy, such as that disclosed in D4.
- 1.3 In its opinion, this finding was surprising because it reversed the preliminary opinion expressed in two earlier communications issued by the opposition division in preparation for the opposition proceedings. D12 was filed at the earliest possible stage of the appeal proceedings to address that reversal of opinion. Furthermore, D12 was *prima facie* relevant. Thus, it had to be admitted.
- 1.4 The board does not agree. From the outset of the opposition proceedings, the proprietor (now respondent) had argued that claim 1 was limited to a hard candy and did not encompass a composition suitable for making it. In its letter dated 1 December 2021, the proprietor had explicitly disagreed with the opposition division's earlier preliminary opinion: see page 2, second paragraph.
- 1.5 Therefore, even if the reversal of the preliminary opinion might have been subjectively surprising to the appellant, the opposition division's interpretation of claim 1 corresponds to that proposed by the proprietor from the outset of the opposition proceedings. Hence,

the opposition division's finding that the subject-matter of claim 1 is limited to a hard candy and is novel over D4 does not justify filing a new document and setting out a new novelty objection in appeal.

1.6 It is also worth noting that the opposition division's preliminary opinion is, as the name says, just preliminary. Thus, having received a favourable preliminary opinion, a party has no reason to rest on its laurels and to expect that, if the opinion is reversed, they will have "carte blanche" to file new documents and raise new objections. This means that, even assuming that D12 could be considered *prima-facie* relevant, as submitted by the appellant, this document could and should have been filed during the opposition proceedings. It is also noted that claim 1 as allowed by the opposition division is identical to that granted. Thus, D12 could and should have been filed with the notice of opposition.

1.7 For these reasons, D12 and the novelty and inventive step objections based thereon are not admitted into the appeal proceedings (Article 12(2), 12(4) and 12(6) RPBA 2020).

Documents D13 and D14

1.8 The appellant cited D13 and D14 and relied on them to present new inventive step objections and to show that it was obvious to the skilled person to use large quantities of inulin in hard candies, and thereby obtain the claimed sweetener to inulin ratio.

1.9 In its opinion, D13 and D14 were filed to address the opposition division's allegedly surprising finding that the claimed subject-matter involved an inventive step

over D10. The opposition division had previously expressed the preliminary opinion that the claimed subject-matter was obvious because D10 provided the motivation to use inulin in the claimed amount. This opinion was reversed during the oral proceedings. D13 and D14 addressed this reversal and had to be admitted.

- 1.10 The board does not agree. The ratio between the bulking agent and inulin indicated in claim 1 was already present in claim 1 of the application as filed. Furthermore, the relevance of D10 as closest prior art and of the aforementioned ratio were already mentioned by the proprietor (now respondent) during the opposition proceedings: see pages 2 and 3 of the proprietor's letter dated 17 September 2020.
- 1.11 Therefore, in this case too, even if for the appellant it might have been subjectively surprising that the opposition division reversed its preliminary opinion, its conclusions follow arguments which had already been presented by the proprietor during the opposition proceedings.
- 1.12 Accordingly, the opposition division's conclusion that the subject-matter of claim 1 involves an inventive step starting from D10 as closest prior art does not justify the filing of new documents and new attacks in appeal. D13 and D14 could and should have been filed during the opposition proceedings.
- 1.13 For these reasons, D13 and D14 and the inventive step objections based thereon are also not admitted into the appeal proceedings (Article 12(2), 12(4) and 12(6) RPBA 2020).

2. *Sufficiency of disclosure*

- 2.1 The appellant submitted that, contrary to the opposition division's finding, the claimed invention was not sufficiently disclosed across the entire scope claimed.
- 2.2 In its opinion, the opposed patent acknowledged that some hard candies according to the invention could not be prepared. In particular, paragraphs [0032] and [0064] taught that no hard candies could be formed if trehalose was used alone as bulking agent, or if it was used in a 90/10 wt% ratio with inulin. Moreover, there was no evidence that the hard candy reduced gastrointestinal disturbances, cariogenesis, while providing good texture and stability.
- 2.3 These arguments are not persuasive. The patent describes what hard candies are and how they are typically prepared. Formulations of hard candies according to the invention are also described: see paragraphs [0003], [0022] to [0034] and the examples in the section "Examples and comparative runs", starting from paragraph [0049].
- 2.4 Paragraph [0032] acknowledges that, if trehalose is used alone as bulking sweetener, producing hard candies having a texture similar to that of traditional sucrose and corn syrup candies can be challenging. However, as submitted by the respondent, this paragraph states that trehalose can be used to prepare hard candies according to the invention and does not categorically exclude its use as sole bulking sweetener. In fact, as noted during the oral proceedings, "run 14" on tables 10 and 11 of the opposed patent describes a hard candy containing only trehalose as bulking agent. Furthermore, claim 1

does not require the hard candy to have a texture similar to that of traditional hard candies.

2.5 The appellant also argued that, according to paragraph [0064] of the patent, particular ratios of trehalose to inulin were not operable. However, the claims exclude these ratios.

2.6 The appellant also submitted that there was no evidence that the claimed composition solved the problem of reducing gastrointestinal disturbances, cariogenesis, while also providing a good texture and stability. However, none of these effects is mentioned in the claims. Thus, the alleged failure to bring them about is irrelevant to assessing sufficiency of disclosure, see G 1/03, reasons No. 2.5.2.

2.7 For these reasons, it is concluded that, relying on the teaching of the patent and common general knowledge at the filing date, the skilled person would have been able to prepare the claimed hard candy. Therefore, the requirement of sufficiency of disclosure is fulfilled (Article 83 EPC).

3. *Novelty*

3.1 The appellant argued that the subject-matter of claim 1 was not novel over the teaching of D4.

3.2 D4 discloses a sweetening composition for foodstuffs, comprising a sweetening agent and inulin: see the summary in column 2. The composition can be used in a process for manufacturing a variety of foodstuffs. These are said to include: "gums, tablets and lozenges, candy (e.g. gummy, hard, etc.)". The appellant referred to column 5, lines 5 to 9 and 40 to 45, to column 6,

lines 66 and 67 and to claims 1, 2, 10 and 17 of D4. In particular, the appellant argued that claims 1, 2, 10, and 17 disclosed a combination of a bulking sweetener - being erythritol or isomaltulose - and inulin, in a 60 to 40 weight ratio, falling within the claimed range.

3.3 These arguments fail to persuade.

3.4 Claim 1 of D4 reads:

*"A sweetening composition comprising:
at least one sweetening agent comprising a polyol; and
inulin, which comprises at least about 25 percent by
weight of the combination of said at least one
sweetening agent and said inulin,"*

3.5 This means that the sweetening composition comprises 25% of a combination of the sweetening agent and inulin. The ratio between the sweetening agent and inulin is, however, not disclosed by this claim.

3.6 Claim 17 of D4 reads: *"The composition of any one of claims 1 to 14, wherein said inulin comprises at least about 40 percent by weight of the combination of said at least one sweetening agent and said inulin"*.

3.7 This wording does not disclose the ratio between the sweetening agent and inulin either. As was noted during the oral proceedings, the "said inulin" mentioned in claim 17 cannot itself comprise "at least about 40 percent by weight of the combination of said at least one sweetening agent and said inulin". It appears, instead, that claim 17 further characterises the sweetening composition of claim 1, on which claim 17 is dependent, by specifying that it comprises at least 40 percent by weight of the combination of the sweetening

agent comprising a polyol and inulin. As also noted during the oral proceedings, this teaching is confirmed by the passage in column 5, lines 40 to 45 of D4.

3.8 Therefore, D4 does not directly and unambiguously disclose a composition comprising a) a bulking sweetener agent comprising isomaltulose, trehalose, erythritol, or combinations thereof and b) inulin, in the ratio indicated in claim 1 of the main request. The claimed subject-matter is therefore novel over D4 (Article 54(2) EPC).

4. *Inventive step*

4.1 The opposition division decided that the claimed subject-matter involves an inventive step over D10, which was considered the closest prior art.

4.2 The appellant contested this finding and argued that the claimed subject-matter did not involve an inventive step starting from document D9 as closest prior art, in combination with D5 or D11 or, alternatively, starting from D10 as closest prior art, in combination with D5.

The claimed invention

4.3 The claimed invention relates to a hard candy which is less cariogenic than traditional hard candies based on sucrose and corn syrup. The claimed hard candy comprises a) a bulking sweetener agent comprising isomaltulose, trehalose or erythritol and b) inulin, in a certain ratio. The hard candy should have acceptable clarity and remain in an amorphous, glass state, no crystals being formed even after storage. Furthermore, the hard candy should not cause gastrointestinal disturbances: see paragraphs [0001] to [0029] and in

particular paragraphs [0001], [0004], [0007], [0020], [0021] and [0022] of the opposed patent.

Closest prior art

- 4.4 The opposition division decided that D10 is the closest prior art and the board sees no reason to diverge from this choice. Like the opposed patent, D10 focuses specifically on the preparation of a non-cariogenic hard candy which contains isomaltulose (palatinose), one of the specifically claimed bulking sweetener agents. Furthermore, like the patent, D10 addresses the problem of providing a hard candy which is stable in storage and has an acceptable clarity, and does not contain crystallised material even after storage. According to D10, these problems can be solved by replacing the sugars typically used in hard candies, such as saccharose, glucose, and malt syrup, with isomaltulose: see page 1, lines 3 to 7 and 24 to 26, page 2, lines 1 to 7, page 3, lines 24 to 27, page 4, lines 1 to 19 and claim 1.
- 4.5 The appellant proposed D9 as an alternative starting point for assessing inventive step. D9 relates to the provision of a wide range of food products which provide a sufficient daily amount of soluble dietary fibre to promote a healthy faecal transfer rate, while maintaining a pleasant taste and texture. The disclosed food products contain a low viscosity dietary fibre, "LVDF", made of an indigestible dextrin: see paragraphs [0005], [0006], [0012] and [0013].
- 4.6 D9 mentions, in the first place, the use of LVDF for preparing syrups. According to a further embodiment, D9 mentions the use of this syrup as a "candy doctor" to prevent the crystallisation of sucrose in hard candies:

see paragraphs [0017], [0018], [0025] and [0044], and claim 6. An example of such a hard candy, comprising LVDF, isomaltitol and a minor amount of erythritol is disclosed in example 8. However, since i) the primary focus of the invention disclosed in D9 is the use of the LVDF fibre - which is not an ingredient of the claimed composition - to promote faecal transfer while maintaining a good mouthfeel ii) inulin is not even mentioned and iii) erythritol is not necessarily used as bulking agent, D9 is not the closest prior art.

Distinguishing features

- 4.7 The claimed hard candy differs from that disclosed in D10 in that it contains a bulking sweetener agent and inulin in a ratio of 70/30 to 40/60.
- 4.8 Isomaltulose, which is the bulking sweetener agent of D10 (see page 12, lines 14-15), is present in an amount of from 60 to 100 wt%, preferably 80 to 98 wt%, see page 4, lines 16-19 and claim 1. A passing reference to inulin as a potential filler is made on page 11, lines 11 to 13 of D10, but no indication is given as to the amounts thereof. None of the exemplified compositions comprises inulin.
- 4.9 According to page 12, lines 6 to 13, the composition of D10 may comprise 1 to 90 wt% of additional ingredients; a heterogeneous shopping list of additional ingredients here mentions a filler. However, as already stated by the opposition division and the respondent, the range of 1 to 90 wt% of additional materials makes no technical sense, being incompatible with the required amount of isomaltulose, which is the most important ingredient of the disclosed hard candy. This amount is also in contradiction with the much lower values

defining the amounts of all the additional materials explicitly mentioned in the following paragraph, starting from line 14 of page 12 of D10. Most additional ingredients are in amounts of below 2.5 wt%. The highest amount proposed for an additional ingredient is 10 wt%: see e.g. the amounts of oils and fats. The inclusion of any additional additive in high amounts, namely at least 30%, is therefore not derivable from D10.

- 4.10 For these reasons, the claimed hard candy differs from that disclosed in D10 in the 70/30 to 40/60 dry solid ratio between the bulking sweetener and inulin.

Technical effects

- 4.11 It was not disputed that, since it does not comprise the high amounts of cariogenic ingredients, such as sucrose and corn syrup, which are typically present in traditional hard candies, the claimed hard candy will be less cariogenic than traditional hard candies.
- 4.12 Furthermore, the tests described in the opposed patent show that:
- inulin, in the claimed weight ratio, can be used to replace corn syrup as a doctoring agent in hard candies comprising sucrose or isomalt as bulking agent: tables 1 to 9
 - inulin, in the claimed weight ratio, can be used as a doctoring agent to produce hard candies comprising any of trehalose, isomaltulose or erythritol as bulking sweetening agents: tables 10 to 16

- the tested hard candies have organoleptic properties which are similar to those of traditional hard candies comprising sucrose as bulking agent and corn syrup as doctoring agent: they are clear and stable, they do not tend to crystallise or to absorb significant amounts of water and they furthermore deliver flavour and taste

- remarkably, not all combinations of bulking sweetener agents and doctoring agents are suitable for preparing hard candies: if the ratio of inulin is too low (e.g. a 90/10 wt%), the candy does not harden: see paragraph [0064]; conversely, if it is too high, it may interfere with the delivery of flavour and clarity: see paragraph [0057]

4.13 It was not contested that the patent showed no tests comparing the properties of the claimed hard candies, comprising the claimed bulking sweeteners, e.g. isomaltulose, and an amount of inulin in the claimed ratio, and those disclosed in D10.

4.14 The respondent noted that tables 4 to 6 of the patent showed that compositions comprising isomalt and inulin performed better than comparative compositions comprising sucrose in combination with corn syrup or inulin. However, these comparative compositions do not represent the closest prior art. Furthermore, they confirm that inulin can be used to produce stable hard candies, even when used with isomalt, which is a very hygroscopic bulking sweetening agent.

Underlying technical problem

- 4.15 Taking account of the aforementioned technical effects, starting from D10, the underlying technical problem can be regarded as the provision of an alternative hard candy which, like the candy of D10, is less cariogenic than traditional sucrose and corn syrup hard candies and remains in an amorphous non-crystalline state.

Non-obviousness of the claimed solution

- 4.16 According to the appellant, starting from D10 and confronted with the underlying technical problem, it would have been obvious to include the required amount of inulin in the isomaltulose compositions disclosed in that document. In this context, the appellant also referred to D5. This document describes the use of anti-crystallising agents to prevent the crystallisation of erythritol in the coating of confectionery products. It also mentions inulin, among a long list of other agents. In its opinion, D5 would have provided a pointer to the claimed solution.
- 4.17 This argument is not persuasive.
- 4.18 In the first place, as mentioned above, the teaching of the closest prior art, D10, is to use very high amounts of isomaltulose to prepare hard candies. Preferred compositions comprise 80 to 98 wt% of isomaltulose: see claim 1. This amount would be incompatible with the addition of inulin in the claimed weight ratio.
- 4.19 Furthermore, D5 relates to the preparation of a substantially different product, a coating for a confectionery product. The coating and the process for producing it differ substantially from the claimed

product and its manufacturing method. Furthermore, since the teaching of D10 focuses on hard candies made essentially of isomaltulose, whereas D5 relates to a coating made essentially of erythritol, there would be no motivation to combine the teaching of these documents. None of the coatings exemplified in D5 contains inulin. In most examples, gum arabic or gum thala were used to prevent crystallisation in amounts which are far below the relevant level. One example (example 2) used maltitol in a large amount, but maltitol is a sugar alcohol which differs significantly from inulin, which is a polysaccharide.

4.20 For these reasons, starting from D10, the skilled person would not have reduced the amount of isomaltulose below the preferred amounts indicated in this document, to make way for inulin, an optional ingredient, the relevance of which is not even mentioned in D10. Accordingly, that person would not have provided the claimed ratio of these ingredients.

4.21 For these reasons, it is concluded that the claimed subject-matter involves an inventive step starting from D10 as closest prior art, alone, or combined with D5.

Relevance of D9

4.22 As already mentioned above, D9 is not considered the closest prior art. Even if it were considered to be a suitable starting point, the conclusions would be no different, for similar reasons.

4.23 The appellant considered example 8 of D9 to be the starting point for assessing inventive step. This example discloses a hard candy comprising 22 wt% of a

dextrin LVDF, 44 wt% isomaltitol and a minor amount, namely 7 wt%, of erythritol.

- 4.24 According to the appellant, starting from example 8 of D9 and confronted with the problem of preparing an alternative hard candy, the skilled person would have considered replacing the LVDF with inulin. D5 or alternatively D11 would have suggested making such a replacement.
- 4.25 These arguments are not convincing.
- 4.26 D9 focuses specifically on the use of low-viscosity non-digestible fibre (LVDF) in syrups and in food products made using these syrups. Such fibre is the essential ingredient of the food products, including the hard candies disclosed in claim 1 and in example 8 of D9. In the case of the hard candies, the LVDF is used to replace corn syrup, see paragraph [0020].
- 4.27 Since it is the only essential ingredient in D9, LVDF is not a component which the skilled person would replace, let alone with inulin.
- 4.28 The appellant mentioned D5 and D11 as a pointer towards making this replacement.
- 4.29 However, this argument is not persuasive. As already mentioned above, D5 relates to the use of inulin to prevent crystallisation of erythritol during the manufacture of a coating for a confectionery product. This coating and the process for producing it differ substantially from the claimed product and its manufacturing method. Therefore, D5 does not in any way suggest the claimed solution.

4.30 D11 was cited because it teaches that inulin or dextrin can be used to manufacture hard candies comprising erythritol, which do not cause gastrointestinal disturbances. However, as already explained above, the skilled person would not have considered replacing LVDF, the main and only essential ingredient of the hard candy disclosed in example 8 of D9, with other ingredients. Any suggestion that inulin might replace LVDF is based on hindsight knowledge of the invention.

4.31 For these reasons, it is concluded that the claimed subject-matter involves an inventive step starting from either D9 or D10 as closest prior art.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



K. Götz-Wein

A. Haderlein

Decision electronically authenticated