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D E C I S I O N
of 5 February 2002

Case Number: T 1064/99 - 3.3.2

Application Number: 93610052.8

Publication Number: 0589820

IPC: A23G 1/21

Language of the proceedings: EN

Title of invention:

A method and device for moulding of chocolate articles

Patentee:

AASTED-MIKROVERK APS

Opponent:

Gebr. Bindler Maschinenfabrik GmbH & Co. KG
Ferrero oHG mgH

Headword:

Moulding of chocolate/AASTED-MIKROVERK

Relevant legal provisions:

EPC Art. 123(2)(3), 84, 54
EPC R. 86(4)

Keyword:

"Novelty (no): funtional features here do not bring novelty to the system"

Decisions cited:

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Catchword:

-



Case Number: T 1064/99 - 3.3.2

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 5 February 2002

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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 29 November 1999
revoking European patent No. 0 589 820 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. A. M. Lançon
Members: M. Ortega Plaza
S. U. Hoffmann

Summary of Facts and Submissions

- I. European patent No. 0 589 820 based on application No. 93 610 052.8 was granted on the basis of 10 claims.

Independent claim 1 as granted read as follows:

"1. A method for producing outer shells (5) of fat-containing, chocolate-like masses in particular for chocolate articles, wherein a mould cavity (2) is filled with a tempered chocolate-like mass (3) which, under crystallisation, solidifies from the mould cavity (2) and inwardly to form the outer shape of the shell (5), the temperature of the mould cavity (2) being lower than the temperature of the tempered mass (3), that a cooling member (1) having a temperature lower than 0°C is immersed into the mass (3) after this has been filled into the mould cavity (2) and is kept in the mass (3) in a fully immersed position for a predetermined period of time to define a predetermined shell volume (5) between said member (1) and the mould cavity (2), characterized in that the cooling member (1) is immersed into the mass (3) immediately after this has been filled into the mould cavity (2)."

Independent claim 7 as granted read as follows:

"7. A system for use in the performance of the method stated in claims 1-6 for the production of outer shells of fat-containing, chocolate-like masses in particular for chocolate articles, comprising mould cavities (2) to receive a tempered chocolate-like mass (3), the mould cavities (2) having a shape corresponding to the outer shape of the finished shells (5) and being adapted to be kept at a temperature which is lower than

the temperature of the tempered mass, the system moreover comprises cooling members (1) having an outer shape corresponding to the internal shape of the finished shells (5), which cooling members (1) are adapted to be cooled to a temperature lower than 0°C and then to be immersed into the mass (3) and be kept in it in a fully immersed position for a predetermined period of time to define a predetermined shell volume (5) between said member (1) and the mould cavity (2), characterized in that the system comprises means for controlling the up and down movement of the cooling members as well as the residence times in the fully immersed position so that the cooling member (1) is immersed into the mass (3) immediately after this has been filled into the mould cavity (2)."

II. The following documents *inter alia* were cited in the proceedings:

- A2: Expert statement of Civ. Ing. G. Christiansen (translation in English)
- A3: Expert statement of Civ. Ing. G. Christiansen (in Danish)
- A6: R. Whympere, "Cocoa and Chocolate", London 1921, pages 239-250, 257, 279 (corresponds to R8 but different pages copied)
- A7: P. Zipperer, "Die Schokoladenfabrikation", Berlin 1924, pages 143-148, 160-164 (corresponds to R9 but different pages copied)
- R1: GB-A-207974 (cited as D1 by the Opposition Division)

R7: Expert statement of Dr Tscheuschner

R8: R. Whympfer, "Cocoa and Chocolate", London 1921,
pages 239-245, 330-333 and pages 214-216, 236-238
(copies submitted during the oral proceedings)

R9: P. Zipperer, "Die Schokoladenfabrikation", Berlin
1924, pages 146-150

III. Opposition was filed and revocation of the patent in its entirety was requested pursuant to Article 100(a) EPC on the grounds of novelty or lack of inventive step (both respondents) and pursuant to Article 100(b) EPC (respondent 01).

IV. The Opposition Division revoked the patent under Article 102(1) EPC.

The Opposition Division considered that document GB-A-207 974 (R1) anticipated the subject-matter of the main request as it disclosed, either explicitly or implicitly, all the features according to claim 1 of the patent in suit.

The first, second and fourth auxiliary requests (requests No. 1, 3 and 7 respectively) were also considered to contravene Article 54 EPC.

Regarding the third auxiliary request (request No. 6), it was considered that it met the requirements of Article 54 EPC but that it contravened the requirements of Article 56 EPC.

With regard to the fifth auxiliary request (request No. 8) it was rejected, since the introduction of the

disclaimer "and that no lubricant is added to the cooling member" was considered to be not admissible.

The other requests (auxiliary requests No. 2, 4 and 5) had been withdrawn.

- V. The appellant (patentee) lodged an appeal against said decision.
- VI. Oral proceedings were held before the Board on 5 February 2002.
- VII. The appellant maintained its requests as submitted with its letter sent by fax on 7 January 2002. It clarified that the second auxiliary request concerned 10 claims, claims 9 and 10 being as those of the set of claims as granted.
- VIII. The set of claims of the first auxiliary request relates to 9 claims. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the characterising part was amended by introduction of the following **"that the temperature of the cooling member (1) is between -30°C and 0°C, and that the cooling member is kept for 1 to 10 seconds in the chocolate-like mass (3) in a fully immersed position and is then lifted clear of the mould cavity (2) again."** Claims 2 to 9 of the first auxiliary request correspond to claims 3 to 10 of the main request (with the corresponding amendments of the references to previous claims).

The set of claims of the second auxiliary request relates to 10 claims. Claim 1 of the second auxiliary

request differs from claim 1 of the main request in that the following expression "**with a visible inner surface**" was introduced after the word "**shells**". Claims 2 to 10 correspond identically in their wording to claims 2 to 10 of the main request.

The appellant contested the decision under appeal, since it disagreed that document R1 disclosed all the features of the independent claims. It further contested the interpretation in the appealed decision of the implicit disclosure of document R1. Basically, it stressed that the general knowledge at the effective date of document R1 should not be interpreted in the light of more recent knowledge. It contested in particular that document R1 taught the use of tempered chocolate-like mass, the use of a mould cavity cooler than the chocolate-like mass and immersion of a cooling member into the mass immediately after the filling of the mould cavity. Additionally, it pointed out that according to the method of document R1 a lubricant had to be used. However, it considered that the choice of water would not have been seriously contemplated by the skilled person in the light of document R1 and in view of the deleterious effects of water on tempered chocolate. Additionally, document R1 did not unambiguously disclose the fact that the temperature of the plunger is below 0°C.

The appellant doubted that the expert for respondent O2, Dr Tscheuschner, who had produced a declaration to that effect (cf. R7), could actually define by his statement the general knowledge at the effective date of document R1.

It considered the requirements of Article 83 EPC,

relating to Article 100(b) EPC, to be met.

- IX. The respondents confirmed that the grounds of lack of novelty and lack of inventive step were the main issues with respect to the main request. Nevertheless, they maintained the ground of lack of sufficiency of disclosure under Article 100(b) EPC.

With respect to the first auxiliary request, they concluded that it was not admissible, since it did not satisfy Articles 123(2) and (3) and Article 84 EPC. They considered that the first auxiliary request, in particular the subject-matter of independent claims 1 and 6, also lacked novelty vis-à-vis document R1.

With respect to the second auxiliary request, they requested that the Board reject it as late-filed in view of the fact that the amendment introduced was taken from the description and could not have been predicted in the light of the previous written requests. Moreover, the added element had not served as a basis for the search report (Rule 86(4) EPC).

- X. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or on the basis of auxiliary request No. 6 filed on 22 October 1999 (first auxiliary request) or on the basis of auxiliary request No. 9 filed on 7 January 2002 (second auxiliary request).

- XI. The respondents (opponents) requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. Articles 123(2) and (3) and 84 EPC.

2.1 Main request

There is no objection in respect of the main request which relates to the set of claims as granted.

2.2 First auxiliary request

Claim 1 of the first auxiliary request was limited by incorporation of originally filed dependent claim 2. Additionally, it was specified in the characterising part "that the temperature of the cooling member (1) is between -30°C and 0°C ". The basis for this wording appears in originally filed claim 8.

The introductory part of claim 1 clearly states that the method uses a cooling member (1) having a temperature **lower than 0°C** . Therefore the definition of the range introduced into the said claim has to be read in this context. The fact that originally filed claim 8, which was taken as the basis for this wording, relates to a system does not allow to conclude that the said amendment introduces new meanings into the method claim 1. The reasons are that the system according to originally filed claim 8 referred to the system of originally filed claim 7, which is defined as a system adapted for performing the method according to originally filed claims 1 to 6. The definition appearing in originally filed claim 8 is a functional definition relating to the performance of the method according to claim 1. To this extent, it is apparent that working with a cooling member having a temperature

of 0°C is clearly not encompassed by the said claim 1, contrary to the respondents' submissions. Hence the Board is satisfied, in the light of the above-mentioned arguments, that the set of claims of the first auxiliary request meets the requirements of Articles 123(2) and (3) and Article 84 EPC.

2.3 Second auxiliary request

The basis for the expression "with a visible inner surface", introduced in claim 1, can be found on page 8 as originally filed. This amendment has not been contested under Article 123(2) EPC by the respondents. The Board sees no reason to differ from this. With respect to the meaning of the word "visible", it was acknowledged by the appellant during the oral proceedings before the Board that it merely means "that can be seen". This clarification was needed in view of the submissions made during the proceedings in relation to possible uses of chocolate shells. In the present case, the amendment can only mean that the shell obtained by the claimed method can be seen once it is made. Therefore the Board concludes that the requirements of Article 84 EPC are met.

As to the argument of late filing for this request, its filing date was one month before the date for the oral proceedings before the Board. It was filed as an attempt to deal with the arguments submitted during the appeal proceedings by respondent O2. Therefore the Board sees no objective reason to disregard this request as late-filed. Moreover, in contradistinction to respondent O2's arguments relating to Rule 86(4) EPC, it is not plausible that the search report does not cover the subject-matter of amended claim 1 because

of the introduction of the said expression.

3. *Novelty*

- 3.1 The only document considered by the opposition division -in its decision of revocation of the patent in suit- to anticipate the subject-matter claimed in the patent in suit is document R1. The Board agrees with this view, even when considering the documents filed during appeal proceedings. However, in the Board's judgment, in order to assess the disclosure made by document R1, it is necessary to consider manuals R8 (A6) and R9 (A7) as illustrating the general knowledge of the skilled person at the time of document R1. Document R9 relates to a monograph published in 1924. Therefore the contents of the manual R9 necessarily relate to general knowledge available prior to the date of its publication. The Board considers that its contents illustrate the general knowledge of the skilled person at the time of the British patent application R1 which was filed in 1923 and published in 1924.

The Board cannot share the opinion of the appellant that they are late-filed enclosures. These enclosures filed by respondent O2 with its letter of 19 December 2000 are relevant for the present decision and were provided as response to the appellant's submissions in appeal proceedings (*inter alia* the filing of the corresponding documents A6 and A7). During the oral proceedings before the Board, respondent O2 submitted some further copies of manual R8. However, pages 237 to 238 complete the chapter, dedicated to moulding chocolate articles, which was partially sent by the appellant. Pages 214 to 216 describe the "melangeur" and "hot cupboard" mentioned on page 237.

3.2 All three requests on file comprise an independent claim (claim 7 of the main and second auxiliary requests and claim 6 of the first auxiliary request) concerning a system for use in the performance of the method stated in the method claims for the production of outer shells of fat-containing chocolate-like masses. The wording of the system claim is identical for the three sets of claims (the only difference being the number of previous claims referred to in claim 6 of the first auxiliary request).

The subject-matter of claim 7 of the main request relates to a system comprising:

A. mould cavities (2)

- (i) having a shape corresponding to the outer shape of the finished shells (5), and
- (ii) being adapted to be kept at a temperature which is lower than the temperature of the tempered mass,

B. cooling members (1)

- (i) having an outer shape corresponding to the internal shape of the finished shells (5), which cooling members (1) are adapted to
- (ii) be cooled to a temperature lower than 0°C and then to be immersed into the mass (3) and
- (iii) be kept in it in a fully immersed position for a predetermined period of time to define a predetermined shell volume (5).

Additionally, the characterising part defines further features of the system only by their function.

The system comprises:

C. means for controlling

- (i) the up and down movement of the cooling members
- (ii) the residence times in the fully immersed position
- (iii) so that the cooling member (1) is immersed into the mass (3) immediately after this has been filled into the mould cavity (2).

3.3 The system claim is an open claim, wherein the system has to be understood as any system suitable for performing the method claimed in claim 1 and comprising mould cavities, cooling members and means for controlling the up and down movement of the cooling members.

There is no technical disclosure for the system other than that linked to the reproduction of the teaching for the performance of the method claimed by using the mould cavity and cooling member depicted in the figures.

3.4 Structural features

The structural features defining the system are shared by the independent claims of the three requests.

The definitions given in the independent claim for the

system include the reference signs appearing in Figures 1 to 5 which show one mould cavity and one cooling member. The description refers to an apparatus comprising the system (cf. column 2, lines 52 to 59 and column 3, lines 1 to 13). There is no disclosure with respect to how several mould cavities and several cooling members are comprised in the system. The fact that, for the system as defined in claim 7, reference is made to the mould cavity and the cooling member in terms of a plural form cannot be taken as a technical feature for the purpose of novelty.

Document R1 discloses a method for the production of outer shells (hollow casings) of chocolate material. The method is performed by means of a system comprising a mould cavity and a plunger-like core which is to be immersed into the chocolate-like mass contained in the mould cavity. The mould cavity and the plunger-like core are depicted in Figures 1 to 3. The mould cavity has a form which corresponds to the external form of the chocolate casing and the plunger-like core is adapted to correspond to the internal shape of the chocolate casing (cf. also page 2 of document R1, lines 100 to 107).

Therefore all the structural features of the system (cf. A(i), B(i)) are present in the system disclosed in document R1. This is confirmed by the description of the method on page 2, lines 126 to 130, of document R1, which discloses the use of the plunger-like core by immersion into the mass contained in the mould cavity.

3.5 Functional features

3.5.1 Main request

The Board has duly considered the arguments put forward by the appellant to support the novelty of the subject-matter claimed and the arguments submitted by the respondents, which questioned it in the light of document R1. The Board has come to the conclusion that, when interpreting the contents of the documents, the same standards of tolerance should be applied to document R1 as to the patent in suit. The only difference should be that the general knowledge of the skilled person has to be defined with respect to a different time, that of document R1 and that of the effective date of the patent in suit respectively.

Features related to the mould cavity. Features A

The mould cavity should be adapted to be cooled for performing the method disclosed in document R1, since the mould cavity is firstly partially filled "in usual manner" (page 2, lines 125 to 126). The usual manner is explained on page 1, lines 9 to 14, where it is stated that the moulds can be cooled (chilling). This is confirmed by the disclosure on page 2, lines 10 and 11: "pouring the material into a mould, chilling it,...".

Furthermore, in order to avoid the disadvantages of the prior art, document R1 provides "a plunger-like core, which, after the mould has been partially filled, **and the material is commencing to set**, is entered into it..." implies necessarily that the mould is at a temperature lower than the chocolate and that the chocolate mass starts solidifying inwardly (see page 1, lines 25 to 32, and page 2, lines 23 to 31).

Features related to the plunger. Features B

Document R1 discloses on page 2, lines 126 to 130, the use of the plunger-like core by immersion, for keeping it a predetermined time, thereby forming the casing. The plunger-like core is adapted to be cooled, as it is apparent from Figure 1 and the description (cf. page 1, lines 65 to 68 and page 2, lines 73 to 76 and 93 to 95). Hence, the plunger-like core of document R1 acts as the cooling member in the same way as disclosed in the patent in suit. Although not explicitly mentioned in document R1, it must be adapted to be cooled at a temperature below 0°C. This is because water is explicitly disclosed as a lubricant to be used (cf. page 1, lines 50 to 51 and page 2, line 47) and "the plunger is cooled to a temperature near or **below** (emphasis added) what may be termed the non-volatilising freezing or solidifying point of the liquid" (cf. page 3 of document R1, lines 5 to 8 and page 2, lines 51 to 53), ie in the case of water, below 0°C.

The appellant's submissions asserting that the temperature of the plunger according to document R1 may be below 0°C before the immersion but never during the immersion are not convincing. The expert's statement A2, filed by the appellant, concerns an attempt to demonstrate that the temperature at the surface of the plunger is slightly below 0°C, ie about 0°C, but never below 0°C in the sense of the patent in suit. These calculations disregard the fact that a layer of water becomes liquid in contact with the chocolate mass, which is still warm when the plunger-like core is immersed. Hence, the plunger-like core does not necessarily require to have a temperature of 0°C, or above, in order to perform the method according to document R1.

With respect to the features according to C. it is inevitable that, when performing the method of document R1, some means are given for controlling the up and down movement of the cooling member and the residence time in the fully immersed position so that the cooling member (1) is immersed into the mass (3).

The reference to an immediate immersion of the cooling member after the chocolate-like mass has been filled into the mould cavity cannot confer novelty over document R1. "Immediately" is a relative term which is process-related but does not reflect on a specific feature of the present system different from the features disclosed for the system according to document R1. Document R1 discloses that the chocolate mass partially sets before the immersion but this can plausibly be connected to the fact that the mould cavity is cooler than the chocolate mass or is cooled after filling (cf. page 2 of document R1, lines 10 to 12). Therefore this feature does not imply a difference in the system for immersion of the plunger.

The Board can therefore only conclude that all the features of the system claimed in claim 7 of the main request are anticipated by the system disclosed in document R1 and that the system disclosed in document R1 is suitable for performing the method as claimed in claim 1 of the main request.

3.5.2 First auxiliary request

The feature "the cooling member is kept for 1 to 10 seconds in the chocolate-like mass (3) in a fully immersed position", appearing in claim 1 of the first auxiliary request, is not a feature which reflects on a

novelty bringing feature for the system according to claim 6 of the first auxiliary request. It is stated in column 4, lines 30 to 34, of the patent in suit that "the residence time may vary from about 1 second and up to 10 seconds, according to the shape and size of the shell as well as the prepared state of the chocolate mass". Hence, there are no technical features of the system linked to the selection of the residence time other than those disclosed in document R1, since the residence time depends on the size and shape of the article to be produced. These features are not specified in the claims.

3.5.3 Second auxiliary request

The feature "with a visible inner surface" appearing in claim 1 of the second auxiliary request does not change the above arguments. The plunger-like core is withdrawn when performing the method according to document R1 and the surface of the inner cavity then becomes visible. Moreover, this characteristic cannot be taken as a feature of the system according to claim 7. Therefore the system claimed in claim 7 of the second auxiliary request also lacks novelty.

3.6 Further arguments

With respect to the state of the chocolate mass as being "tempered", a debate took place during the oral proceedings before the Board as well as during the written procedure. No agreement could be achieved by the parties with respect to the nature of the tempered chocolate at the time of R1 (1923-1924) and at the effective time of the patent in suit (1992). However, the contested claims relate to a system, and the nature

of the chocolate-like mass plays a secondary role. It is a fact that the system should be suitable for receiving in the mould cavity a tempered chocolate-like mass and it is adapted to form the chocolate articles, but there is no difference in the three requests in this respect. The differences in the interpretation by the parties of the term "tempered" at the time of document R1 and at the time of the patent in suit have no influence on the characteristics of the system other than those linked to the temperature of the chocolate mass.

Nevertheless, in the light of the general knowledge shown by documents R8 and R9, the skilled person at the time of document R1 knew about the nature and quality necessary for the chocolate mass to be used when moulding chocolate articles according to the method of document R1.

Additionally, the temperature of the chocolate mass of document R1 is to be understood, in the light of the general knowledge at the time (document R8, page 241), as being from 32°C to 34°C. This temperature range is very similar to and overlaps with the range mentioned in the patent in suit, which is between 27°C and 32°C.

Finally, the question of the use of a lubricant, as well as the choice of it, which, according to the appellant, is a mandatory feature of the method and means disclosed in document R1, is irrelevant for the purpose of considering the system claim 7 (claim 6 of the first auxiliary request and claim 7 of the second auxiliary request respectively) of the main request of the patent in suit. Indeed, when questioned by the Board during the oral proceedings, the appellant

confirmed that the method claimed in the patent in suit did not exclude the use of a lubricant. This also confirms the observation of the Board that the system claim is worded as an open claim (see point 3.3 above).

- 3.7 In view of the foregoing, the Board concludes that the subject-matter of claim 7 of the main and second auxiliary requests and of claim 6 of the first auxiliary request lacks novelty vis-à-vis the contents of document R1.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

E. Görgmaier

P. A. M. Lançon