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D E C I S I O N
of 29 April 2003

Case Number: T 0018/01 - 3.3.2

Application Number: 94920898.7

Publication Number: 0756455

IPC: A23G 1/21

Language of the proceedings: EN

Title of invention:

A method and a system for the production of shells of fat-containing, chocolate-like masses

Patentee:

AASTED-MIKROVERK APS

Opponent:

Gebr. Bindler Maschinenfabrik GmbH & Co. KG

Headword:

System for the production of chocolate shells/AASTED-MIKROVERK

Relevant legal provisions:

EPC Art. 56, 123(2)

Keyword:

"Main request; inventive step (no): The claimed system relates to an obvious combination of the prior art for the skilled person, namely a system engineer for moulding articles"

"Auxiliary request; Admissibility (yes); Article 123(2) EPC (no); unallowable generalisation of preferred embodiments"

Decisions cited:

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Catchword:

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Case Number: T 0018/01 - 3.3.2

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 29 April 2003

Appellant: Gebr. Bindler Maschinenfabrik GmbH & Co. KG
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Respondent: AASTED-MIKROVERK APS
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Representative: Finn, Heiden
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 20 October 2000
rejecting the opposition filed against European
patent No. 0 756 455 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: U. Oswald
Members: M. Ortega Plaza
S. U. Hoffmann

Summary of Facts and Submissions

- I. European patent No 0 756 455 based on application No. 94 920 898.7 (published as WO 95/32633) was granted on the basis of 10 claims.

Independent claim 1 as granted read as follows:

"1. A system for the production of shells (10) of fat-containing, chocolate-like masses for food articles and comprising at least one mould cavity (2) to receive a liquid, tempered mass as well as an associated cooling member (1) adapted to be cooled to a temperature below 0°C and then to be immersed in the tempered mass and be kept in it for a predetermined period of time to define a predetermined shell volume (10) between the member (1) and the mould cavity (2), characterized in that the cooling member (1) comprises protruding engagement parts (4) which are mounted to the cooling member, and extend peripherally around the upper part of the cooling member (1) and are adapted to engage the upper parts of the mould cavity (2) when the cooling member being fully immersed in the mass, said protruding engagement parts (4) moreover comprising at least one peripherally extending recess (9), which provides a reception volume which upwardly defines and encloses the predetermined shell volume (10) along the shell rim (11) when the cooling member is fully immersed in the mass."

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

(1) EP-A-589 820

(2) DE-C-122020

III. Opposition was filed and revocation of the patent in its entirety was requested pursuant to Article 100(a) EPC on the grounds of lack of inventive step.

IV. The opposition division rejected the opposition under Article 102(2) EPC.

The opposition division considered that none of the documents anticipated the subject-matter of the main request as they did not disclose all the features according to claim 1 of the patent in suit.

Furthermore, the opponent had not challenged the novelty of the claimed subject-matter.

As regards the requirements of inventive step (Article 56 EPC) the opposition division considered document (1) to represent the closest prior art and that the problem related to the industrial production of chocolate shells in fewer production steps and with less excess of chocolate mass.

The opposition division took the view that the skilled person trying to improve the system of document (1) might have used the teaching of document (2), but the skilled person would not have been able to propose the solution of mounting the engagement parts of ring *f* according to document (2) to the cooling member, since they were deliberately left free in document (2).

V. The appellant (opponent) lodged an appeal against said decision.

VI. Oral proceedings were held before the Board on 29 April

2003.

The respondent (patentee) filed an amended set of claims, as auxiliary request, during the oral proceedings.

Amended claim 1 read as follows:

"1. A system for the production of shells (10) of fat-containing, chocolate-like masses for food articles and comprising at least one mould cavity (2) to receive a liquid, tempered mass as well as an associated cooling member (1) adapted to be cooled to a temperature below 0°C and then to be immersed in the tempered mass and be kept in it for a predetermined period of time to define a predetermined shell volume (10) between the member (1) and the mould cavity (2), characterized in that the cooling member (1) comprises protruding engagement parts (4) **formed as a ring** (*emphasis added*) which are mounted to the cooling member, and extend peripherally around the upper part of the cooling member (1) and are adapted to engage the upper parts of the mould cavity (2) when the cooling member being fully immersed in the mass, said protruding engagement parts (4) moreover comprising at least one peripherally extending recess (9), which provides a reception volume which upwardly defines and encloses the predetermined shell volume (10) along the shell rim (11) when the cooling member is fully immersed in the mass, **and that the engagement ring (4) is mounted axially spring-loaded on the cooling member** (*emphasis added*)."

VII. The appellant's arguments with respect to the main request may be summarised as follows:

The novelty of the claimed subject-matter was not contested.

With respect to the requirements of inventive step (Article 56 EPC) the appellant considered document (1) to represent the closest prior art, since the moulding arrangement shown in document (1) concerned a plunger which was cooled.

The appellant stated that the difference lay in the fact that the protruding engagement part (4) was fixed to or mounted to the cooling member. Moreover, the appellant pointed out, according to the patentee, the protruding engagement part (4) had a special design in order to have fewer steps and avoid loss of mass.

The appellant further stated that, when considering the problem of improving the production process of chocolate shells, the skilled person would look at how to minimise the loss of chocolate masses and how to improve the mould arrangement.

In the appellant's view, document (2) already showed such an improvement for minimising the flow of excess material. The moulding arrangement was separated into two parts because of the need to perform a suitable cleaning when producing the chocolate articles such as chocolate eggs.

The appellant acknowledged that in the system disclosed in document (2) the engagement ring was not fixed to the dies. The appellant stressed that, in spite of this fact, document (2) expressly mentioned the fold-like cavity ("*Falz c*"), which resulted - as shown by figures 1 and 3 of document (2)- in the shell rim of

the final article being able to improve the mounting of two chocolate shells.

The solution proposed in document (1) was, in the appellant's view, to cut the excess chocolate, whereas the solution in document (2) was to have a similar element to that of the patent in suit for receiving the excess volume. In such a way, the prepared product did not require an additional treatment.

The appellant further stated that the skilled person faced with the technical problem would only have had two options from which to choose a possible solution: either a movable or a fixed engagement part.

Furthermore, the appellant stated that the solution proposed by the system according to claim 1 was conventional and obvious to try for the skilled person, namely a mechanical engineer conversant with moulding equipment. The appellant further contended that there were some advantages and disadvantages linked to both solutions.

The appellant also stated that the design of the chocolate articles prepared by the system disclosed in document (2) was similar to the embodiments appearing in figures 3 to 5 of the contested patent.

The appellant objected to the late filing of an auxiliary request since, in its opinion, there was no objective reason for the patentee to do so. It also argued that it had already filed its arguments against the main request already with the grounds of appeal and that the patentee had had plenty of time before the oral proceedings to file any amendments to the claims.

The appellant objected to amended claim 1 within the meaning of Articles 123(2) and 84 EPC. Its reasons were based on a lack of support and lack of clarity with respect to the feature that the engagement ring may have been either mounted or movable by virtue of being spring-loaded.

VIII. Having regard to the main request the respondent acknowledged document (1) as the closest prior art. It stated that the difference between the system according to claim 1 and that according to document (1) was that a protruding engagement part was mounted to the cooling member with a recess which provided a predetermined volume for receiving the excess chocolate mass.

The respondent cited the passage on page 2, lines 23 to 26, of the contested patent where the problem solved by the invention was defined.

The respondent contended that in the system according to document (2) the engagement ring remained as part of the mould when the dies were removed, since it was not mounted on the dies. Hence, the respondent considered that the skilled person would not have been able to arrive at the proposed solution by merely combining the teaching of documents (1) and (2).

The respondent also stated that document (2) reflected the knowledge of the skilled person a hundred years ago and that the plunger was not cooled.

The respondent added that one further problem underlying the production of the chocolate articles within the meaning of the invention concerned the integrity of the delicate shell rims of the chocolate

article when attracting the cooling member away from the mould. It contended that the skilled person would have required an incentive in order to mount the engagement ring disclosed in document (2) to the cooling member for the purpose of solving the technical problem.

With respect to the admissibility of the late filing of the auxiliary request, the respondent explained that it merely concerned a combination of claims 1 and 8 as granted and that its filing was related to an attempt to easily overcome the inventive step objection.

Asked by the Board to specify the basis for the amended claim 1 within the meaning of Article 123(2) EPC, the respondent answered that the basis was to be found in a combination of claims 1 and 8 as granted and in the text in column 6, lines 1 to 9, of the patent as granted.

IX. The appellant (opponent) requested that the decision under appeal be set aside and that European patent No. 0 756 455 be revoked.

The respondent (patentee) requested that the appeal be dismissed and that the patent be maintained as granted (main request) or on the basis of the set of claims of the auxiliary request filed during the oral proceedings.

Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

2.1 The novelty of the subject-matter claimed has not been questioned by the appellant and the Board sees no reason to do so either.

2.2 Inventive step

The opposition division considered document (1) as the closest prior art. This was not disputed by the parties and the Board also sees no reason to differ.

It was undisputed between the parties that document (1) discloses all the features of the precharacterising part of claim 1.

The respondent referred to the contested patent for the purpose of defining the problem over this prior art as the provision of "*an industrial applicable method and system with few production steps for the production of shells having a well-defined geometry, while eliminating the excess recirculating mass.*" (page 2, column 2, lines 23 to 26).

Therefore, it has first to be examined whether the alleged saving of production steps can be linked to the characterising features of the system according to claim 1.

The expression "mounted" employed in claim 1 is not restricted to the meaning "fixed", but has to be taken in its broadest meaningful sense, ie "mounted" includes both permanent ("fixed") mounted or temporarily ("movable") mounted. Furthermore, the fact that the protruding engagement part is mounted to the cooling

member may save a production step at the moment of performing the function linked to the retrieval of the cooling member. However, it may require a further step when the necessarily cleaning of the system takes place.

Moreover, such a possible saving of industrial steps is not supported by the disclosure of the contested patent.

As regards the saving of industrial steps in the method of producing shells for chocolate articles, when comparing the system according to claim 1 with the system according to document (1), the following becomes apparent: the only functionality related to fewer industrial steps which might be linked to (or reflected by) the features of claim 1 is the elimination of excess chocolate-like mass during the formation of the shell.

It is also to be noted that the mere reference to the production of shells having a well-defined geometry without any further specification of the limit of tolerance of the geometrical shape achieved in the final product cannot be accepted as evidence of an improvement over known prior art systems, particularly over that known from document (1).

Therefore, the problem to be solved lies in the provision of a system for the production of shells of fat-containing chocolate-like masses for food articles suitable for eliminating the excess chocolate-like mass.

The problem is solved by the features appearing in the

characterising part of claim 1, particularly the features defining the arrangement of the protruding engagement parts.

Having regard to the figures and the corresponding explanations in the description of the contested patent, the Board is satisfied that the problem has indeed been solved.

Document (1) itself does not suggest modifying the system for the production of shells in order to provide means for avoiding excess chocolate-like masses other than those for eliminating the excess chocolate-like masses by cutting (column 2, lines 48 to 50, column 3, lines 8 to 10, and figure 4).

However, the skilled person faced with the problem as defined above would also be aware of document (2) which relates to the production of shells of chocolate by means of immersing and pressing a plunger into a mould filled with a chocolate mass (page 1, left-hand column, lines 5 to 7, 14 to 15).

The fact that the chocolate mass employed in the method according to document (2) is a thick chocolate mass does not disqualify the system disclosed in said document from being considered by the skilled person as suitable for the production of shells of a fat-containing chocolate-like mass from a liquid, tempered chocolate-like mass. On the contrary, document (2) explicitly refers to the press moulding technique employed for glass articles as background for the system engineer facing the problem of the production of moulded articles in general and of chocolate articles in particular (cf. introductory part in the left-hand

column and in the right-hand column, lines 20 to 21, on page 1).

Furthermore, the reference to the glass technique in document (2) also demonstrates that the system engineer is aware of the need to apply a gradient of temperature when using the system concerned in document (2) for moulding articles. Therefore, the skilled person, aware of the system according to document (2), would not hesitate to combine its teaching with that of document (1) (cold stamp technique over liquid, tempered chocolate mass).

Document (2) already foresees a solution in which a peripherally extending recess is included as an engagement ring which provides a reception volume for the excess chocolate mass (cf. page 1, right-hand column, second paragraph).

Moreover, the egg shell *b* formed when applying the system disclosed in document (2) possesses an upwardly predetermined shell volume, in which the shell rim is formed from the fold-like cavity ("*Falz c*") of the engagement ring *f* (page 1, right-hand column, second paragraph and figure 3).

Additionally, the engagement part of the system disclosed in document (2) which is the ring *f*, extending peripherally to the mould and containing a reception volume, is adapted to engage the upper parts of the mould cavity (figures 1 and 3).

The reception volume of the engagement ring of the system according to document (2) is such that it is suitable for receiving the excess chocolate mass from

the mould when the chocolate mass is pressed into the mould.

Furthermore, the reception volume of the system disclosed in document (2) defines upwardly and encloses the predetermined shell volume along the shell rim (figures 1 and 3).

In other words, the system according to document (2) provides the same form and volume for the final article as that provided by the system defined in claim 1.

The fact that the engagement parts are mounted (not necessarily fixed, ie they may be movable) to the cooling member turns out to be one of two possible options left for the system engineer when facing the problem to be solved. The Board is convinced that it would have been obvious to try both possibilities in the light of document (2) and general knowledge.

Therefore, the Board is also convinced that the system according to claim 1 is obvious in the light of a combination of the teachings of documents (1) and (2).

A further argument put forward by the respondent for supporting the inventive step of the system according to claim 1 deals with the integrity of the delicate chocolate shell rim when removing the cooling member together with the protruding engagement part which is mounted thereon.

This argument, however, cannot be taken into consideration since on the one hand the system according to claim 1 is also suitable for the production of chocolate articles without such a

"delicate" shell rim, and on the other the specific geometry of the reception volume is not defined in the claim. This is further confirmed by the form of the specific articles shown in figures 6a and 6b, which as explained in column 5, lines 38 to 53, is produced by using the system of claim 1.

Consequently, in view of the reasons set out above, the Board concludes that claim 1 of the main request contravenes the requirements of Article 56 EPC.

3. *Auxiliary request*

3.1 Admissibility

Having regard to the fact that amended claim 1 concerns *a priori* a combination of claims 1 and 8 of the granted version and since the appellant did not alleged to need additional time to examine the amended claims, the Board acknowledged the admissibility of the late-filed auxiliary request.

3.2 Article 123(2) EPC

As stated in the facts and submissions, the basis given by the respondent for the amended claim 1 concerned the patent as granted. However, in order to assess whether the requirements of Article 123(2) EPC are met it has to be examined whether the amendments find their basis in the application as originally filed.

The feature "the engagement ring (4) is mounted axially spring-loaded on the cooling member" has been introduced in amended claim 1. However, in the application as filed there is no claim containing such

a feature. Hence, the fact that it has been taken from claim 8 of the patent as granted is irrelevant for assessing the requirements of Article 123(2) EPC.

The relevant passage in column 6 of the patent as granted corresponds to the passage on page 9, lines 19 to 28, of the application as filed.

In particular, in that passage it is stated that "The invention has been described with reference to a stationary, fixed mounting of the **engagement ring** (*emphasis added*) on the cooling member. However, the **engagement ring 4** (*emphasis added*) may also be mounted axially spring-loaded, eg by means of a rubber insert..."

This passage, however, cannot be taken separately but has to be considered into within the context and the disclosure made in the application as filed.

The feature "engagement ring" or "engagement ring 4" is disclosed in the application as filed only in connection with the preferred embodiments illustrated by figures 1 and 2, as shown by the explanatory text on page 7, lines 16 to 31, of the application as filed.

These particular preferred embodiments are specific systems in which each of the features of the system has a specific form and quality. However, claim 1 as granted refers to a system defined in general terms, where there is no engagement ring but "protruding engagement parts" in general.

This is further confirmed by the passage bridging pages 5 and 6 of the application as filed, which reads

"the method and the system of the invention will be explained more fully below with reference to **particularly preferred embodiments** (*emphasis added*) as well as the drawing,..."

Therefore, in the Board's view, the introduction of the expression "**and that the engagement ring (4) is mounted axially spring-loaded on the cooling member**" into claim 1 relates to an unallowable generalisation of the preferred embodiments originally disclosed in the application as filed.

The respondent's assertion that such amendment was allowable since it merely related to a combination of claims 1 and 8 as granted must be additionally disregarded for the following reasons. The engagement ring defined in claim 8 as granted as "mounted axially spring-loaded on the cooling member" did not appear defined in claim 1, but only in claim 7 as granted in connection with other specifically defined features of a specific system. Hence, the combination of the specific features of claim 8 directly with the features of generic claim 1 without taking over the other specific features of claim 7 results in a further unallowable combination of features.

In the light of the above analysis the Board concludes that amended claim 1 does not meet the requirements of Article 123(2) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside
2. The patent is revoked

The Registrar:

The Chairman:

P. Martorana

U. Oswald