Case Number: T 0458/00 - 3.2.7
Application Number: 92305702.0
Publication Number: 0521642
IPC: B65B 31/00
Language of the proceedings: EN
Title of invention:
Method of filling a can and can for use therein
Patentee: CarnauMetalbox plc
Opponent: Schmalbach-Lubeca AG
Headword: -
Relevant legal provisions:
EPC Art. 123(3)
Keyword: "Extension of protection conferred (yes)"
Decisions cited: -
Catchword: -
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DECISION
of the Technical Board of Appeal 3.2.7
of 7 August 2002

Appellant: Schmalbach-Lubeca AG
(Opponent) Kaiserswerther Str. 115
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Representative: Leonhard, Frank Reimund, Dipl.-Ing.
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Respondent: CarnauMetalbox plc
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Representative: Gadsden, Robert Edward
Group Manager Intellectual Property
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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office posted 2 November
1999 concerning maintenance of European patent
No. 0 521 642 in amended form.

Composition of the Board:
Chairman: A. Burkhart
Members: P. A. O'Reilly
J. H. P. Willems
Summary of Facts and Submissions

I. The appellant (opponent) filed an appeal against the decision of the Opposition Division to maintain the European patent No. 0 521 642 in amended form.

II. Opposition was filed against the patent as a whole and based on Article 100(a) EPC (lack of novelty and lack of inventive step), Article 100(b) EPC (insufficient disclosure of the invention) and Article 100(c) EPC (extension beyond the content of the application as filed). The Opposition Division held that the grounds for opposition did not prejudice the maintenance of the patent in amended form in accordance with the main request filed during oral proceedings before the Opposition Division.

III. The appellant requested that the decision of the Opposition Division be set aside and the patent revoked.

The respondent requested that the patent be maintained on the basis of their main request filed with letter of 22 June 2000 (identical to the main request maintained by the Opposition Division) and comprising claims 1 to 7. The independent claim of the main request reads as follows:

"1. A method of filling and closing a can body (1) having an open top and a bottom wall (3) thicker than its sidewall (5) with a non-carbonated product, said method comprising in sequence the steps of:

a) filling the can body with the product at elevated temperature to leave a headspace (2) above the
product;

b) double seaming a can end (16, 30) to the can body (4) to close the can;

c) deforming the can; and

d) cooling the can;

classified in that,

e) between steps (a) and (b), a permanent gas is blown into the headspace (2) to substantially fill the headspace with the permanent gas and thereby reduce the water vapour content of the headspace; and

f) in step (c) a part of the can is deformed from a first stable shape (13/7, 30A) to a second stable shape (7, 30) to reduce the headspace volume thereof and ensure that the headspace pressure is above 1 atmosphere;

whereby collapse of the can due to formation of a vacuum as the can is cooled is avoided."

In an auxiliary request filed with the main request the independent claim differs from that of the main request in that the last part of the claim reads "whereby the formation of a vacuum as the can is cooled is avoided."

The respondent did not request oral proceedings.

IV. The appellant in his appeal essentially argued regarding Article 123 (3) as follows:
Feature (c) of claim 1 of the main request no longer contains the wording "before the can has cooled to a temperature at which a vacuum is formed" whereas the feature "whereby collapse of the can due to formation of a vacuum as the can is cooled is avoided." has been added to the end of the claim. These two sets of wording are not equivalent. According to the claim as granted the pressure inside the can would not descend below 1 atmosphere. According to the claim as amended the pressure could descend below 1 atmosphere so long as the can does not collapse.

The appellant also presented arguments regarding added subject-matter and lack of inventive step.

V. The respondent in his submission in response to the appeal essentially argued with regards to Article 123(3) EPC as follows:

The additional feature at the end of claim 1 of the main request does not alter the fact that in step (f) it is specified that the headspace pressure is above 1 atmosphere so that there is no extension of protection.

If there is any doubt in this respect then this would be removed with the auxiliary request which no longer refers to the "collapse of the can".

The respondent also presented arguments in response to the grounds of added subject-matter and lack of inventive step.

VI. The Board of Appeal in a communication expressed the provisional view that the independent claim of each of the main and auxiliary requests did not comply with
Articles 123(2) and (3) EPC. Moreover, the Board considered that the subject-matter of the independent claim of each request did not involve an inventive step in the sense of Article 56 EPC. No response to this communication was received.

**Reason for the Decision**

**Main Request**

1. **Amendments to the granted claim**

After grant feature (c) which read: "deforming the can before the can has cooled to a temperature at which a vacuum is formed" was replaced by features (c) and (d) which read: "(c) deforming the can; and d) cooling the can". In addition, the wording "whereby collapse of the can due to formation of a vacuum as the can is cooled is avoided" was added to the end of the claim. The rest of the wording of the claim is unchanged. This lack of change in the rest of the wording however had the effect that the reference back in present feature (f) to step c), i.e "deforming the can" replaces a reference back in the claim as granted to the then feature c), i.e "deforming the can before the can has cooled to a temperature at which a vacuum is formed".

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

2.1 Feature (c) of claim 1 of the patent as granted required that the deformation of the can took place before a vacuum was formed due to cooling. This means that no vacuum was allowed to form. Moreover, feature (f) referring back to feature (c) also required...
that the headspace pressure is above 1 atmosphere. According to the claim as now worded it is the collapse of the can due to the formation of a vacuum which must be avoided. This wording means that a vacuum can be allowed to form, but not so great a vacuum as to collapse the can. The requirement to deform the can before a vacuum forms is no longer contained in the claim. Feature f) requires that the deformation ensures a headspace pressure above 1 atmosphere. But, it may be after the deformation of the can that the pressure above 1 atmosphere is (re-) gained. The removal of the limitation of avoiding a vacuum results in an extension in the scope of protection. The respondent in his response to the appeal has referred to feature (f) in this respect. However, as indicated above, feature (f) refers to feature (c) and does not give any limitation regarding the internal pressure before deformation. Therefore, this argument of the respondent cannot be accepted.

Auxiliary Request

3. Amendments compared to the main request

3.1 Compared to the main request the auxiliary request deletes the reference to "collapse of the can due to" so that in the last part of the claim it is merely stated that "the formation of a vacuum as the can is cooled is avoided."

4. Article 123(3)

4.1 With respect to the main request it has already been explained above that claim 1 as amended includes the possibility of a vacuum being formed before the
deformation step, whereas in the claim as granted this possibility was expressly excluded. In the opinion of the Board the same limitation has been omitted from claim 1 of the auxiliary request. The claim provides a deformation step (feature (c)) which ensures (via feature (f)) that the pressure in the headspace is above 1 atmosphere after the deformation. The last part of the claim, i.e "whereby ... avoided", requires that in the cooling step, i.e after deformation, a vacuum is avoided. There is thus no limitation in the claim which prevents the formation of a vacuum before the deformation step. Since feature (c) of the patent as granted expressly included such a limitation the patent as amended extends the protection conferred.

Order

For these reasons it is decided:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: 

The Chairman: 

D. Spigarelli

A. Burkhart