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**Datasheet for the decision  
of 21 August 2018**

**Case Number:** T 1263/15 - 3.2.08  
**Application Number:** 05714143.4  
**Publication Number:** 1725354  
**IPC:** B21D51/26, B21D22/30, B65D1/16,  
B65B1/46  
**Language of the proceedings:** EN

**Title of invention:**

BOTTOM PROFILE FOR DRAWN AND IRONED CAN BODY

**Patent Proprietor:**

Rexam Beverage Can Company

**Opponents:**

Ardagh MP Group Netherlands B.V.  
Ab Ovo Patents B.V.

**Headword:**

**Relevant legal provisions:**

EPC Art. 123(2), 123(3)  
RPBA Art. 12(1)(a), 12(4), 13(1)

**Keyword:**

Amendments - allowable (no)

Basis of proceedings - statement of grounds of appeal

Late-filed argument - admitted (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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Case Number: T 1263/15 - 3.2.08

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.08**  
**of 21 August 2018**

**Appellant:** Rexam Beverage Can Company  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 23 April 2015  
revoking European patent No. 1725354 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairwoman**            P. Acton  
**Members:**            M. Foulger  
                              C. Schmidt

## **Summary of Facts and Submissions**

- I. With the decision dated 23 April 2015 the opposition division revoked European patent No. 1 725 354.
- II. The appellant (proprietor) filed an appeal against this decision. The appeal was filed in due form and within the given time limits.
- III. Oral proceedings took place before the Board on 21 August 2018. As announced with their respective letters dated 13 August 2018 and 6 June 2018 neither the appellant nor the respondent (opponent 1) attended the oral proceedings. In accordance with Rule 115(2) EPC and Article 15(3) RPBA the oral proceedings were held in their absence.
- IV. The appellant requested that the decision under appeal be set aside and the patent be maintained as granted, or in the alternative on the basis of one of auxiliary requests 1-9 filed with the statement setting out the grounds of appeal.

The respondents requested that the auxiliary requests 3-6, 8 and 9 not be admitted into the proceedings and that the appeal be dismissed.

- V. a) Main request

Independent method claim 9 reads:

"A method of manufacturing a can body from an aluminum blank having a gauge thickness of 0.03 cm (0.0108 inches) or less, comprising the steps of:  
forming a cup from said blank;  
drawing and ironing said cup in a body former to form a can body, wherein said can body formed in said body

former includes a bottom profile (10), said body former having tooling to form the following features in said bottom profile: a nose portion (12) having an inner nose radius (26) and an outer nose radius (28), a chime (16) adjacent to said nose portion (12) and having a chime length (16), a dome portion (14), and a dome corner radius R2 (22) joining said chime (16) to said dome (14) and having a dome corner radius of curvature (22); wherein said dome portion (14) comprises radii R1a (18) and R1b (20), R1a (18) being greater than 3.8 cm (1.5 inches) and radius R1b (20) between 0.5 cm and 2.5 cm (0.2 and 1.0 inches), and radius R2 (22) being between 0.15 cm and 0.3 cm (0.060 and 0.120 inches), and necking said can body; wherein the dimensions of said tooling forming said inner nose radius (26) and outer nose radius (28), chime length (16), dome radii of curvature (14) and dome corner radius (22) are selected relative to each other so as result in said can body meeting customer requirements for can bottom performance in terms of buckle, drop and growth and wherein subsequent to said drawing and ironing step no further bottom profile reforming process or apparatus is applied to said can body to provide further strengthening of the bottom profile of the can body in order to meet said requirements for can bottom performance."

Claim 12 reads:

"The method of claim 9, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.1 cm and 0.15 cm (0.040 and 0.060 inches)."

b) Auxiliary requests 1 and 2

Dependent claim 10 reads:

"The method of claim 7, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.1 cm and 0.15 cm (0.040 and 0.060 inches)."

c) Auxiliary request 3

Dependent claim 9 reads:

"The method of claim 6, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.1 cm and 0.15 cm (0.040 and 0.060 inches)."

d) Auxiliary request 4

Dependent claim 8 reads:

"The method of claim 5, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.1 cm and 0.15 cm (0.040 and 0.060 inches)."

e) Auxiliary request 5

Claim 1 reads:

"A beverage can, comprising:  
a one-piece drawn and ironed beverage can body, the can body made from aluminum having a gauge thickness of 0.03 cm (0.01075 inches) or thinner, said can body having a bottom profile, wherein said bottom profile having a nose portion having an inner nose radius and an outer nose radius, wherein said inner and outer nose radii are between 0.13 cm and 0.15 cm (0.050 and about 0.060 inches), a chime adjacent to said stand portion and having a chime length, a dome portion having more than one dome radius of curvature, and a dome corner radius joining said chime to said dome and having a

dome corner radius of curvature R2, wherein said inner nose radius and outer nose radius, chime length, dome radii of curvature and dome corner radius are selected relative to each other so as result in said can body meeting customer requirements for can bottom performance in terms of buckle, drop and growth, wherein said dome portion comprises radii R1a and R1b, R1a being greater than 3.8 cm (1.5 inches) and radius R1b between 0.5 cm and 2.5 cm (0.2 and 1.0 inches), and radius R2 being between 0.15 cm and 0.3 cm (0.060 and 0.120 inches), and further wherein said can body including bottom profile are formed in body former without the use of a further bottom profile reforming process or apparatus, said can passes a drop test of at least 5½ inches."

Dependent claim 6 reads:

"The method of claim 4, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.13 cm and 0.15 cm (0.045 and 0.060 inches)."

f) Auxiliary request 6

The following feature has been added to the independent claims of auxiliary request 5:

"said chime length is between 0.15 cm and 0.2 cm (0.060 and 0.080 inches)".

Dependent claim 4 reads:

"The method of claim 2, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.13 cm and 0.15 cm (0.045 and 0.060 inches)."

g) Auxiliary request 7



Independent claim 1 corresponds to independent method claim 9 as granted.

Dependent claim 4 reads:

"The method of claim 1, wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.1 cm and 0.15 cm (0.040 and 0.060 inches)."

h) Auxiliary request 8

Claim 1 reads:

"A method of manufacturing a can body from an aluminum blank having a gauge thickness of 0.03 cm (0.0108 inches) or less, comprising the steps of:  
forming a cup from said blank;  
drawing and ironing said cup in a body former to form a can body, wherein said can body formed in said body former includes a bottom profile (10), said body former having tooling to form the following features in said bottom profile: a nose portion (12) having an inner nose radius (26) and an outer nose radius (28), a chime (16) adjacent to said nose portion (12) and having a chime length (16), a dome portion (14), and a dome corner radius R2 (22) joining said chime (16) to said dome (14) and having a dome corner radius of curvature (22); wherein said dome portion (14) comprises radii R1a (18) and R1b (20), R1a (18) being greater than 3.8 cm (1.5 inches) and radius R1b (20) between 0.5 cm and 2.5 cm (0.2 and 1.0 inches), and radius R2 (22) being between 0.15 cm and 0.3 cm (0.060 and 0.120 inches), and necking said can body;  
wherein the dimensions of said tooling forming said inner nose radius (26) and outer nose radius (28), chime length (16), dome radii of curvature (14) and

dome corner radius (22) are selected relative to each other so as result in said can body meeting customer requirements for can bottom performance in terms of buckle, drop and growth and wherein subsequent to said drawing and ironing step no further bottom profile reforming process or apparatus is applied to said can body to provide further strengthening of the bottom profile of the can body in order to meet said requirements for can bottom performance, and wherein said tooling is constructed such that said inner and outer nose radii (26, 28) are between 0.1 cm and 0.15 cm (0.040 and 0.060 inches)."

i) Auxiliary request 9

The following feature has been added to the independent claim of the auxiliary request 8:

"said chime length is between 0.15 cm and 0.2 cm (0.060 and 0.080 inches)".

VI. The respondents argued essentially the following:

a) Admissibility of auxiliary requests 3-6, 8, 9

These requests could have and should have been filed during the proceedings before the opposition division. The Board should therefore not admit them into the appeal proceedings (Article 12(4) RPBA).

b) Dependent claim 12 as granted - Article 100(c) EPC

Dependent claim 14 as originally filed contained the feature whereby the "tooling is constructed such that said inner and outer nose radii are between 0.045 and about 0.060 inches." This was amended during

examination proceedings such that the lower limit was changed to 0.040 inches.

The only mention of such a lower limit was in Table 1 of the application. Table 1 related to a "specific 12 oz. beverage can" (see p. 11, l. 2). Thus, this feature was only disclosed in connection with such a can with the other dimensions listed in Table 1. Dependent claim 12 as well as independent claim 9 on which it was dependent did not contain such a restriction but rather related to a "method of manufacturing a can body from an aluminium blank..".

The subject-matter of claim 12 was therefore an unallowable intermediate generalisation.

c) Auxiliary requests 1-4, 7-9

These requests also contained the subject-matter objected to above for the main request. They were consequently also unallowable (Article 123(2) EPC).

d) Auxiliary requests 5, 6 - Article 123(3) EPC

The originally filed application contained two independent product claims, i.e. claims 1 and 7. Claim 1 of the patent as granted was based on claim 1 as originally filed along with further features from the description. Claim 1 of these requests was however based on claim 7 as originally filed.

The granted claim required that the forming of said can body was completed without performing a step of reforming of said bottom profile. Claim 1 now required merely that the can body including bottom profile were formed in the body former without the use of a further

bottom profile reforming process or apparatus. This latter wording left open the possibility that a bottom profile reforming process could take place after the can body left the body former. This broadened the scope of the claim contrary to Article 123(3) EPC.

Auxiliary requests 5 and 6 were therefore not allowable.

VII. The appellant argued essentially the following:

a) Admissibility of auxiliary requests 3-6, 8, 9

These requests were filed as a reaction to arguments put forward by the respondents in opposition proceedings. Moreover they were filed at the earliest possible moment in appeal proceedings. They should therefore be admitted.

b) Dependent claim 12 as granted - Article 100(c) EPC

i) The respondents did not raise any objection to claim 12 during opposition proceedings. This objection should therefore be dismissed.

ii) The appellant did not provide any basis for this claim in appeal proceedings.

c) Auxiliary requests 1 - 4, 7 - 9

The subject-matter of the claims of these requests did not extend beyond that of the application as originally filed for the same reasons as for the main request.

d) Auxiliary requests 5,6

Claim 1 clearly had a narrower scope than claim 1 of the patent. Basis was to be found in originally filed claims 1 and 7.

## **Reasons for the Decision**

### 1. Admissibility of auxiliary requests 3-6,8,9

The respondents objected to the admissibility of these requests because they could have been presented during the proceedings before the opposition division. The Board however considers that these requests were an attempt to overcome the reasons underlying the appealed decision and, moreover, had been filed at the earliest possible moment in the appeal proceedings (Article 12(1)a RPBA). The Board therefore admitted these requests into the proceedings.

### 2. Dependent claim 12 as granted - Article 100(c) EPC

#### 2.1 Admissibility of the objection to granted dependent claim 12.

This objection was raised for the first time in the respondent's letter dated 11 July 2018, i.e. just over one month before the scheduled oral proceedings. This constitutes an amendment to the respondent's case which may be admitted at the Board's discretion (Article 13(1) RPBA).

As the new objection was not complex in nature and could easily be dealt with without adjournment of the oral proceedings, the Board decided to admit it into

the proceedings.

2.2 Dependent claim 12 as granted - Article 100(c) EPC

Granted dependent claim 12 is based on claim 14 as originally filed with the lower limit of the range of inner and outer nose radii as 0.040 inches. In the originally filed claim 14 this value was 0.045 inches. Elsewhere in the application at p. 9, l. 5 a lower limit of 0.050 inches is given.

The lower value of 0.4 inches is only mentioned in Table 1 of the application as originally filed. Table 1 however relates solely to a "specific 12 oz. beverage can" while claim 12 is silent about the size of the can and the dimensions listed in the claim relate to any can size. Furthermore, this value is only disclosed in the context of the other values listed in Table 1.

Independent method claim 9 on which claim 12 depends reads (in part), "the inner nose radius and outer nose radius, chime length, dome radius (radii) of curvature and dome corner radius are all selected relative to each other so as result in the can body meeting customer requirements for can bottom performance in terms of buckle, drop and growth." This wording can only be construed as meaning that the dome radii of curvature, chime length and dome corner radius are closely interrelated with the inner and outer nose radii. This is also evident from Fig. 4 where it is apparent that changing one parameter would require changing the other parameters.

Thus the nose radii have a clear structural and functional relationship with the other features mentioned above including the can size and extracting

these specific values relating to the radii from their disclosed context results in an unallowable intermediate generalisation.

Therefore, the subject-matter of claim 12 as granted extends beyond that of the application as originally filed.

3. Auxiliary requests 1 - 4, 7 - 9

The auxiliary requests also all include subject-matter extending beyond that of the application as originally filed because they all include a claim with the subject-matter of granted claim 12, as follows:

auxiliary requests 1, 2 - renumbered as dependent claim 10,  
auxiliary request 3 - renumbered as dependent claim 9,  
auxiliary requests 4 - renumbered as dependent claim 8,  
auxiliary request 7 - renumbered as dependent claim 4,  
auxiliary requests 8, 9 - incorporated into independent claim 1.

Therefore, none of these requests comply with Article 123(2) EPC.

4. Auxiliary requests 5, 6 - Article 123(3) EPC

Dependent claim 6 of these requests corresponds to dependent claim 14 as originally filed and hence the objection discussed above does not apply.

Claim 1 of the requests 5, 6 is based on originally filed claim 7 (cf. statement setting out the grounds of appeal, paragraph 3.5).

Claim 1 of these requests requires that "said can body including bottom profile are formed in body former without the use of a further bottom profile reforming process or apparatus". This means that it is only in the body former that no reforming should take place. A subsequent reforming step is not excluded.

The product claim 1 of the granted patent was based on originally filed claim 1 which required that the forming of said can body was completed without performing a step of reforming of said bottom profile. This means that a reforming step is excluded at any moment during the can manufacture. Since claim 1 according to these requests excludes a reforming step only in the body former its scope is extended compared with claim 1 as granted contrary to Article 123(3) EPC.



**Order**

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

The appeal is dismissed.

The Registrar:

The Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated