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**Datasheet for the decision  
of 28 June 2016**

**Case Number:** T 1376/12 - 3.2.08

**Application Number:** 03722438.3

**Publication Number:** 1497054

**IPC:** B21D51/38, B65D8/20

**Language of the proceedings:** EN

**Title of invention:**

CAN END

**Patent Proprietor:**

Crown Cork & Seal Technologies Corporation

**Opponent:**

Rothfuss, Willi

**Headword:**

**Relevant legal provisions:**

EPC Art. 100(a)

**Keyword:**

Novelty (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 1376/12 - 3.2.08

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.08**  
**of 28 June 2016**

**Appellant:** Rothfuss, Willi  
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**Decision under appeal:** **Decision of the Opposition Division of the European Patent Office posted on 27 April 2012 rejecting the opposition filed against European patent No. 1497054 pursuant to Article 101(2) EPC.**

**Composition of the Board:**

**Chairwoman** P. Acton  
**Members:** M. Alvazzi Delfrate  
D. T. Keeling

## **Summary of Facts and Submissions**

- I. By its decision posted on 27 April 2012 the opposition division rejected the opposition against European patent No. 1 497 054.
- II. The appellant (opponent) lodged an appeal against this decision in the prescribed form and within the prescribed time limit.
- III. At the end of the oral proceedings before the Board of appeal, held on 28 June 2016, the requests of the parties were the following:

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed and the patent maintained as granted (main request) or on the basis of the claims of the new first or second auxiliary request filed at the oral proceedings or on the basis of one of the requests filed as first to seventh auxiliary requests by letter of 27 May 2016.

- IV. Claim 1 of the main request (patent as granted) reads as follows:

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, at least one control feature

comprises an expansion of the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25)."

Claim 1 of the new first auxiliary request filed at the oral proceedings reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, there is a shoulder (C') between the countersink bead (25) and the inclined chuck wall portion (24), and at least one control feature comprises an expansion of the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25)."

Claim 1 of the new second auxiliary request filed at the oral proceedings reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, there is a shoulder (C') between the countersink bead (25) and the inclined chuck wall portion (24), and at least one control feature

comprises an expansion of the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25), and in which a control feature extends over an arc behind the heel of a tab (7) fixed to the can end, and centred on a diameter through the tab axis, or having a control feature on each side of a diameter through the tab central axis and each extending around an arc of the can end, or in which the control feature extends around the whole circumference of the end shell (20)."

Claim 1 of the first auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) ~~and/or the chuck wall (24)~~ characterized in that, the or each at least one control feature comprises one or more of an expansion of an the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25)."

Claim 1 of the second auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can

end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that there is a shoulder (C') between the countersink bead (25) and the inclined chuck wall portion (24), and at least one control feature comprises one or more of an expansion of an ~~the~~ outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25)."

Claim 1 of the third auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, there is a shoulder (C') between the countersink bead (25) and the inclined chuck wall portion (24), and the or each ~~at least one~~ control feature comprises one or more of an expansion of an ~~the~~ outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25)."

Claim 1 of the fourth auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control

features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, at least one control feature comprises an expansion of the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25), and in which a control feature extends over an arc behind the heel of a tab (7) fixed to the can end, and centred on a diameter through the tab axis, or having a control feature on each side of a diameter through the tab central axis and each extending around an arc of the can end, or in which the control feature extends around the whole circumference of the end shell (20)."

Claim 1 of the fifth auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) ~~and/or the chuck wall (24)~~ characterized in that, the or each at least one control feature comprises one or more of an expansion of an the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25), and in which a control feature extends over an arc behind the heel of a tab (7) fixed to the can end, and centred on a diameter through the tab axis, or having a control feature on each side of a diameter through the tab central axis and each extending around



an arc of the can end, or in which the control feature extends around the whole circumference of the end shell (20)."

Claim 1 of the sixth auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, there is a shoulder (C') between the countersink bead (25) and the inclined chuck wall portion (24), and at least one control feature comprises one or more of an expansion of an the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25), and in which a control feature extends over an arc behind the heel of a tab (7) fixed to the can end, and centred on a diameter through the tab axis, or having a control feature on each side of a diameter through the tab central axis and each extending around an arc of the can end, or in which the control feature extends around the whole circumference of the end shell (20)."

Claim 1 of the seventh auxiliary request filed with letter of 27 May 2016 reads as follows (differences in respect of the main request emphasised):

"A can end shell (20) comprising a centre panel, a countersink bead (25), an inclined chuck wall portion (24), a seaming panel (22), and one or more control

features for controlling the failure mode of the can end when seamed to a can body (21), each control feature extending around an arc of up to 360° of part of the countersink bead (25) and/or the chuck wall (24) characterized in that, there is a shoulder (C') between the countersink bead (25) and the inclined chuck wall portion (24), and the or each at least one control feature comprises one or more of an expansion of an the outer wall (27) of the countersink bead (25), or a shelf in the outer wall (27) of the countersink bead (25), and in which a control feature extends over an arc behind the heel of a tab (7) fixed to the can end, and centred on a diameter through the tab axis, or having a control feature on each side of a diameter through the tab central axis and each extending around an arc of the can end, or in which the control feature extends around the whole circumference of the end shell (20)."

V. The following document played a role for the present decision:

D1: WO -A- 03/004716.

VI. The arguments of the appellant in respect of novelty can be summarised as follows:

The subject-matter of granted claim 1 was not novel, in particular in view of D1, Figures 7 and 8, which showed a can end shell with an expansion 34' and a shelf 35'. These elements were situated in the countersink bead, which was separated from the inclined chuck wall, as in the patent in suit, by a shoulder at the level of the centre panel. The fact that D1 itself described portions 34' and 35' as part of the chuck wall was

merely a difference in nomenclature. Even if Figures 7 and 8 were sectional views it was clear from the whole of document D1, which concerned a circular can shell, that also elements 34' and 35' had a circular symmetry and thus extended over the whole circumference. Finally, since no difference in structure could be seen between the claimed expansion of and shelf in the outer wall and elements 34' and 35' of D1, the latter acted as control elements, even if this function was not literally disclosed in D1. Therefore, the subject-matter of claim 1 lacked novelty in view D1.

The same applied to claim 1 of each of the auxiliary requests filed at the oral proceedings, since the portion 35' of the countersink bead was separated from the chuck wall 32' by a shoulder and, as explained above, portions 34' and 35' extended over the whole circumference.

The auxiliary requests submitted with letter of 27 May 2016 did not add any feature which could render the claimed subject-matter novel.

VII. The arguments of the respondent in respect of novelty can be summarised as follows:

The subject-matter of granted claim 1 was novel, in particular in view of D1. Portions 34' and 35' shown in Figures 7 and 8 did not belong to the countersink bead but to the chuck wall, as was apparent from paragraph [0022]. Furthermore, there was no indication in D1 that said portions acted as control features. Finally, since Figures 7 and 8 showed sections of the can shell, they could not disclose that these portions extended around an arc, as required for the control features of the claimed invention. Such an extension around an arc was

also not clearly shown in Figures 1 and 6. It was indeed possible to realise portions 34' and 35' as punctual deformations that did not extend around an arc. Therefore, Figures 7 and 8 did not disclose a can shell in accordance with claim 1.

The same applied to the first auxiliary request filed at the oral proceedings because D1 did not disclose any shoulder between portion 34' of the chuck wall and the countersink bead wall 24'.

Since no arc, and in particular no 360° arc, was disclosed in D1, the subject-matter of claim 1 of the second auxiliary request filed at the oral proceedings was also novel.

The auxiliary requests filed with letter of 27 May 2016 were novel for the same reasons.

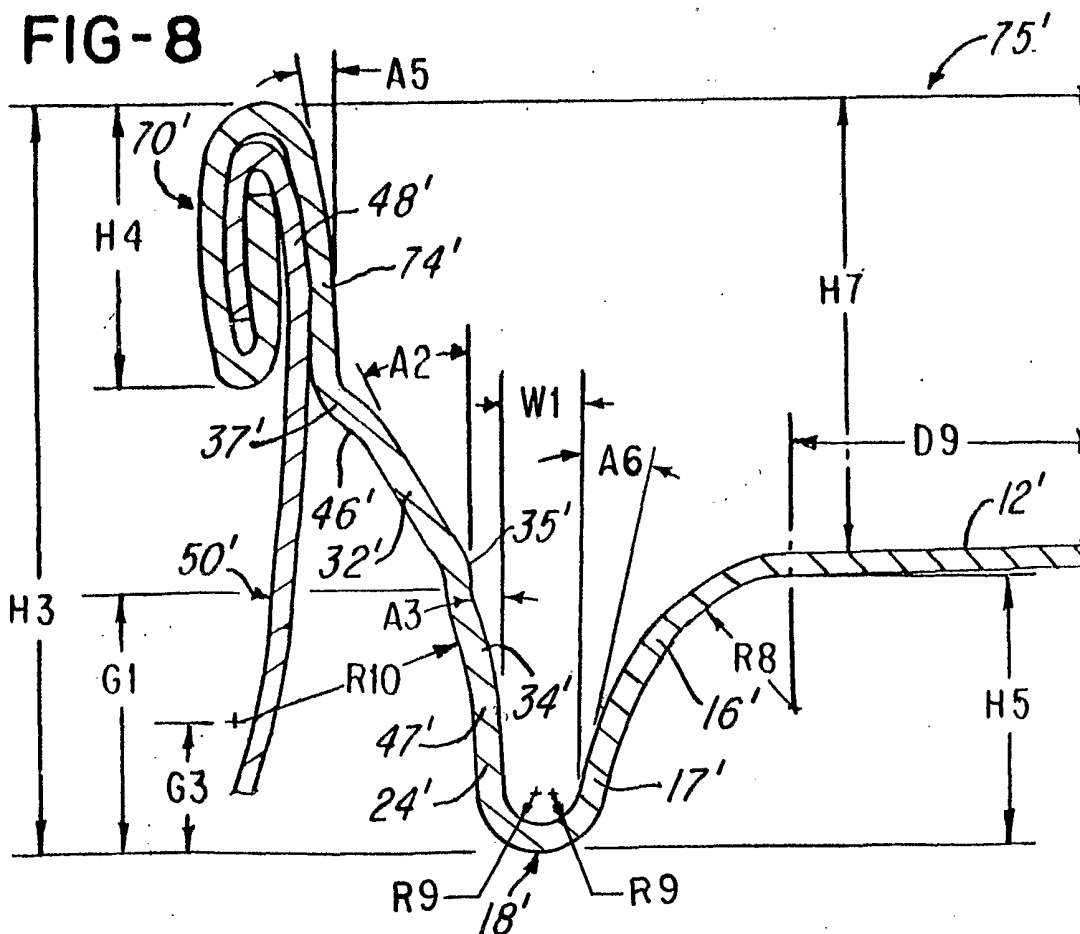
## **Reasons for the Decision**

### 1. Main request

1.1 D1 is undisputedly prior art to be considered for the examination of novelty (under Article 54(3) and (4) EPC 1973). For this examination the can shell disclosed in D1 must be compared with the structural features defined in claim 1. In order to determine said structural features the wording of claim 1 must be interpreted in the context of the claim and of the patent in suit. Whether or not the same wording as in D1 is used to indicate said structural features is a matter of nomenclature that is immaterial to the

examination of novelty: novelty cannot be established merely by calling a known feature by a new name.

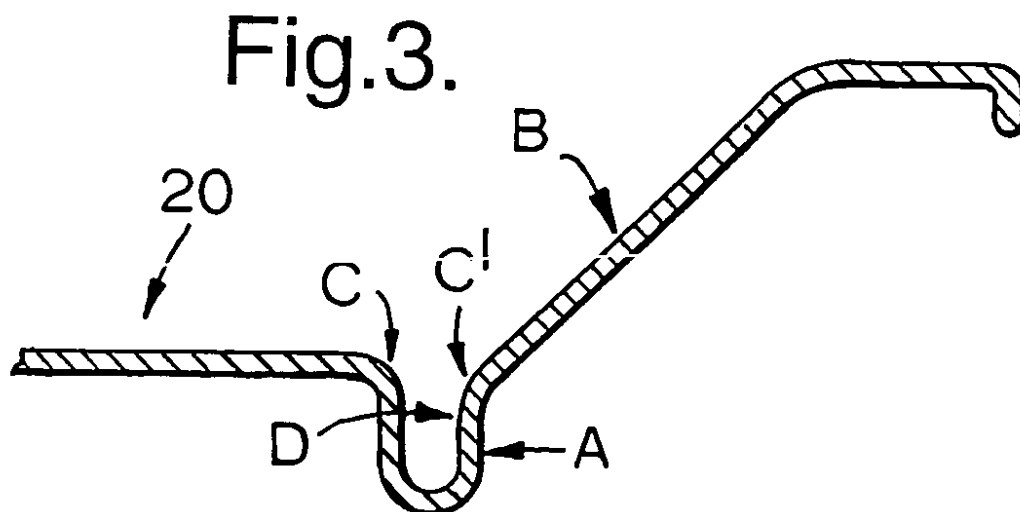
1.2 Figures 7 and 8 (reproduced hereafter) of D1 show a can end shell comprising a centre panel (12') and a seaming panel (70').



The side wall exhibits a slightly curved portion 34' and a vertical portion 35' located below a change in inclination of the wall (between regions 35' and 32'), which is situated approximately at the level of the center panel 12'. Portions 34' and 35' can be regarded respectively as a shelf in and an expansion of the

wall. The respondent did not dispute it but argued that the expansion and the shelf of D1 are not situated in the wall of the countersink bead, as foreseen by claim 1, but in the chuck wall.

However, neither the claims nor the description of the patent in suit define the boundary between chuck wall and outer wall of the countersink bead. As to the drawings, they show the boundary between these two elements in correspondence of a change in inclination of the wall situated approximately at the level of the center panel (shoulder C' in Figure 3 reproduced hereafter). Therefore, regions 35' and 34' of D1, which are situated below this type of change of inclination, can clearly be regarded as part of the countersink bead in the sense of the patent in suit.



The fact that paragraph [0022] of D1 describes portions 34' and 35' as part of what in this document is called the chuck wall is a matter of nomenclature chosen by this particular prior art which, for the reasons

explained above, is immaterial for the examination of novelty.

Therefore, the can end shell of D1 exhibits a shelf (34') in and an expansion (35') of the outer wall of the countersink bead.

1.3 It is true that Figures 7 and 8 are sections and, as a consequence, cannot show the extension in the circumferential direction of portions 34' and 35'. However, portions 34' and 35' connect together portions 32' and 24. As explicitly disclosed in paragraph [0022], the latter are respectively frusto-conical (upper wall portion 32') and cylindrical (outer wall 24') in shape. Accordingly, they exhibit a circular symmetry and their section is unchanged over the whole circumference of the end shell. Even if Figures 1 and 6, to which Figures 7 and 8 refer (see paragraph [0022]), do not clearly and unambiguously show that the shape of the countersink bead is the same over the whole circumference, they do not provide any indication to the contrary either. Indeed such an indication is nowhere to be found in D1, which rather, as explained above, explicitly discloses that at least some of the elements of the countersink bead and the chuck wall have a circular symmetry. Therefore, the person skilled in the art reading D1 would discard the merely theoretical possibility of realising portions 34' and 35' as punctual deformations and would choose for them the same circular symmetry of the portions 32' and 24' that they connect. Hence, D1 implicitly discloses that the expansion (35') and the shelf (34') extend around an arc of 360°.

1.4 D1 does not explicitly disclose that the expansion and the shelf act as control features for controlling the

failure mode of the can end when seamed to a can body. However, since the same structural elements were present in the claimed can end shell and in D1, it has to be assumed that they will have the same function; in the present case that both act as control elements. Moreover, a variation of the radial shape of the can end inherently influences the failure mode of the can end. Hence, the expansion and the shelf of D1 are control features for controlling (in a not further defined way) the failure mode of the can end when seamed to a can body.

1.5 Therefore, no difference can be seen between the can end shell of claim 1 and that of D1, Figures 7 and 8. As a consequence, the claimed subject-matter lacks novelty.

2. Auxiliary requests

2.1 As explained above, portions 34' and 35' in D1 are, contrary to the respondent's view, part of the outer wall of the countersink bead. Therefore, the border between the countersink bead portion 35' and the inclined portion of the chuck wall 32' shows a change in inclination of the wall, i.e. a shoulder. Accordingly, the subject-matter of claim 1 of the new first auxiliary request filed at the oral proceedings lacks novelty.

2.2 As also explained above, portions 34' and 35', which represent control features in the sense of the patent, extend around the whole circumference of the shell. Therefore, the subject-matter of claim 1 of the new second auxiliary request filed at the oral proceedings lacks novelty.



2.3 The first auxiliary request filed with letter of 27 May 2016 has been amended to recite that the or each control feature comprises one or more of an expansion of the outer wall of the countersink bead, or a shelf in the outer wall of the countersink bead. This amendment was intended to address an objection under Article 123(2) EPC but does not purport to change the situation in respect of novelty in view of D1. Hence, also the subject-matter of claim 1 of this request lacks novelty.

2.4 The same applies to the remaining second to seventh auxiliary requests filed with letter of 27 May 2016, which merely present different combinations of the features that have been discussed above and found to be known from D1.

## Order

### For these reasons it is decided that:

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

The Registrar:

The Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated