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Datasheet for the decision of 9 October 2018

Case Number: T 1301/15 - 3.2.08

Application Number: 10165997.7

Publication Number: 2228152

IPC: B21D51/44, B21D51/38, B65D51/14

Language of the proceedings: EN

Title of invention:
A metal closure with separate disc and ring from a single closure blank

Patent Proprietor:
Crown Packaging Technology, Inc.

Opponent:
Ardagh MP Group Netherlands B.V.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 84, 56, 99(1), 114(2)
RPBA Art. 12(4)

Keyword:
Amendments - allowable - main request , auxiliary requests 1,3 (no) - intermediate generalisation
Claims - clarity - auxiliary request 2 (no)
Inventive step - auxiliary request 4 (yes)
Late submitted material - document admitted (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 1301/15 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 9 October 2018

Appellant: (Opponent)	Ardagh MP Group Netherlands B.V. Zutphenseweg 51 7418 AH Deventer (NL)
Representative:	Verdijck, Gerardus Arnold & Siedsma Bezuidenhoutseweg 57 2594 AC The Hague (NL)
Respondent: (Patent Proprietor)	Crown Packaging Technology, Inc. 11535 S. Central Avenue Alsip, IL 60803-2599 (US)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 27 April 2015 concerning maintenance of the European Patent No. 2228152 in amended form.**

Composition of the Board:

Chairwoman	P. Acton
Members:	M. Foulger
	G. Decker

Summary of Facts and Submissions

I. With the decision posted on 27 April 2015, the opposition division found that the patent and the invention to which it related according to the then valid auxiliary request met the requirements of the EPC.

II. The appellant (opponent) filed an appeal against this decision.

III. Oral proceedings took place before the Board on 9 October 2018.

IV. The appellant requested that the decision under appeal be set aside and the patent be revoked in its entirety, furthermore that documents US 2,288,349 A (D5) and US 1,449,629 A (D6) be admitted into the proceedings.

The respondent requested that the appeal be dismissed, or in the alternative that the patent be maintained in amended form according to auxiliary requests 1-3 filed with the letter of 6 September 2018 or auxiliary request 4 filed during the oral proceedings before the Board. Furthermore, that D5 and D6 not be admitted into the proceedings.

V. a) Main request

Claim 1 according to the main request reads as follows:

"**(a)** A two-piece metal closure for a threaded container (3), **(b)** the closure comprising a disc (10') and a ring (20') ;
(c) in which the disc fits in the ring (20') ;
(d) the ring has a curl (25) at its free lower edge;

and
(e) the ring lower edge curl (25) provides cut edge protection, the closure further comprising:
(f) a plurality of lugs (26) which are formed in the curl (25) and are spaced around the circumference of the ring (20'); wherein:
(g) both disc and ring are made from a one-piece metal closure blank;
(h) the disc has a cut edge which is rolled into a curl (15);
(i) the ring has an upper curl (28), **characterised in that (j)** the lower ring curl (25) has greater work-hardening than the upper curl (28)."

Feature references in bold added by the Board.

b) First auxiliary request

The features whereby
"the disc (10') is free to move axially within the ring (20'); and in that the plurality of lugs (26) ride, in use, on a container thread (35) for opening and closing"
have been added to claim 1 of the main request.

c) Second auxiliary request

The features whereby
"the disc (10') is freely movable in an axial direction between the upper curl (28) and the plurality of lugs (26), in that the plurality of lugs (26) lift the disc curl (15); and in that the plurality of lugs ride, in use, on a container thread (35) for opening and closing"
have been added to claim 1 of the main request.

d) Third auxiliary request

The feature whereby
"the lugs (26) are adapted for lifting the disc (10') and breaking the seal between the disc and the container (3)"
has been added to claim 1 of the first auxiliary request.

e) Fourth auxiliary request

The features whereby
"the disc (10') is freely movable in an axial direction between the upper curl (28) and the plurality of lugs (26), and in that the plurality of lugs (26) ride, in use, on a container thread (35) for opening and closing, in that the lugs (26) on the ring (20') are adapted for lifting the disc (10') and breaking the seal between the disc and the container (3)"
have been added to claim 1 of the main request.

VI. The following documents are mentioned in this decision:

D2: US 3,446,381 A
D3: FR 2 177 118 A
D4: US 2004/0016758 A1
D5: US 2,288,349 A
D6: US 1,449,629 A

VII. The appellant argued essentially the following:

i) Main request

Feature (j) had been added in examination proceedings to claim 1. This feature was only disclosed in the brief description of Fig. 6C. This embodiment was

distinguished over the other embodiments of the application in that there were no retention means. Thus the following features should have been included in claim 1 to avoid extension of subject-matter:
- the absence of any retention means,
- that the disc is freely movable in an axial direction between the curl and the lugs,
- that the lugs lift the disc by engagement with the disc curl,
- that the lugs ride on the container thread for closing and opening.

The retention means had the effect of stiffening the ring. In the embodiment of Fig. 6C, without the retention means, the work hardening of the lower and upper curls was critical in order to assure the correct stiffness of the curls. The skilled person would thus consider the absence of the retention means as being inextricably linked to feature (j).

The subject-matter of claim 1 was therefore an unallowable intermediate generalisation which extended beyond that of the application as filed.

b) First auxiliary request

Claim 1 specified that the disc was freely axially movable; this did not however imply that there were no retention means. It was evident from Fig. 4D that the disc of this embodiment was also freely movable albeit to a more limited extent. Thus, this request was not allowable for the same reasons as the main request.

c) Second auxiliary request

The clarity objection to this request was raised by the

Board and the appellant made no further comment.

d) Third auxiliary request

i) Admissibility

This request was late filed, i.e. after the reply to the appeal, and did not seem to respond to any points raised in the Board's communication. It should therefore not be admitted into the proceedings.

ii) Added subject-matter

The added feature did not overcome the objection that the retention means should be excluded by the claim. Therefore, this request was not allowable for the same reasons as for the main request.

e) Admission of D5 and D6

These documents had been filed with the statement setting out the grounds of appeal, i.e. at the earliest possible moment in the appeal procedure. This was a normal reaction of the losing party. These documents addressed the reasons given by the opposition division in the decision under appeal. They were furthermore *prima facie* relevant. They should therefore be admitted into the appeal proceedings.

f) Fourth auxiliary request

i) Admissibility

This request was filed during the oral proceedings and was thus late. The objections under Articles 76(1) and 123(2) EPC had been known to the respondent since the

proceedings before the opposition division. Therefore, it could, and should, have been filed earlier.

ii) Added subject-matter

The claim did not clearly specify that there were no retention means. Thus, the objection above regarding the first auxiliary request still applied to this request.

iii) Inventive step

D2 as closest prior art:

D2 disclosed a two-piece closure comprising a ring with an upper curl 7 and a lower curl with lugs 5. The closure also comprised a disc 1 with a cut edge rolled into a curl as shown in Figs. 1 and 2. The disc was also freely movable between the upper curl and the plurality of lugs.

D2 already taught that the lower curl is stiffer than the upper curl. The problem to be solved was therefore to provide a stiffer lower ring curl.

In order to solve this problem the skilled person would select an appropriate deformation and hence degree of work hardening.

They would thereby arrive at the subject-matter of claim 1 without an inventive step being involved.

D3 as closest prior art:

D3 disclosed a two-piece closure wherein the ring had an upper curl 7 and a lower curl with lugs 5. Due to

the extra deformation of the lower curl 5 to produce the lugs, it was implicit that the lower curl had greater work-hardening than the upper curl.

The disc 2 did not however have a curl so feature (h) was not known from D2.

The problem to be solved was to provide cut edge protection for the disc.

It was evident from D4 (see Fig. 1, item 44) that a curl provided cut edge protection; it would have been obvious for the skilled person to provide this feature on the closure known from D3 with a corresponding technical effect in order to solve the above problem.

Hence, the subject-matter of claim 1 did not involve an inventive step.

VIII. The respondent argued essentially the following:

a) Main request

Feature (j), whereby the lower ring curl had greater work-hardening than the upper curl, was disclosed literally on page 5 of the earlier application as well as in the application as originally filed. The feature relating to work-hardening may have been disclosed in relation to Fig. 6C but was not linked to any other feature. The curls were spaced apart from any retention feature and so could not be regarded as being structurally interrelated.

The subject-matter of claim 1 was thus disclosed in the earlier application as well as the application as originally filed.

b) First auxiliary request

The reasons above for the main request applied equally to this request.

c) Second auxiliary request

The respondent made no further comment to the clarity objection raised by the Board.

d) Third auxiliary request

i) Admission of this request

The request was filed in reaction to the Board's communication. It did not raise any issues which either the Board or the appellant could not be expected to deal with. It should therefore be admitted.

ii) Added subject-matter

The reasons above for the main request applied equally to this request.

e) Admission of documents D5 and D6

These documents were not *prima facie* relevant. Claim 1 had not been amended in such a way as to justify the filing of new documents which should have been filed in the nine month opposition period. They should not be admitted into the appeal proceedings.

f) Fourth auxiliary request

i) Admissibility

The second auxiliary request corresponded to the auxiliary request filed with the reply to the appeal and was therefore filed in good time (Article 12(2) RPBA). In order to overcome the objection raised for the first time during oral proceedings against the second auxiliary request, the respondent filed the fourth auxiliary request. Given the circumstances, this request could not have been filed earlier. Moreover, it merely incorporated a granted dependent claim into an existing request. The request should be admitted.

ii) Added subject-matter

The claim clearly specified that the disc was freely movable in an axial direction between the upper curl and the plurality of lugs. It thus excluded any retention means. The objection raised for the main request was thus rendered moot.

iii) Inventive step

Starting from D2 as closest prior art

The upper part of the ring 7 was not a curl but rather a fold. Moreover, the disc did not have a curl. Thus features (h), (i) and (j) were not known from D2.

Feature (h) provided cut protection for the user. It was not however obvious to change the arrangement of D2 to provide such a curl because this would make the disc stiffer and unable to deflect (see Figs 1, 2 and col. 3, l. 22).

The subject-matter of claim 1 was therefore not obvious starting from D2 as closest prior art.

Starting from D3 as closest prior art

D3 did not disclose feature (h). Moreover, there was no indication that the ring and disc were made from a one-piece metal blank as required by feature (g). The closure of D3 required that the disc be flexible as indicated in Figs. 1-3. To provide it with a curl would stiffen it with negative consequences for the functioning of the closure. The disclosure of D4 did not provide any teaching that the skilled person would regard as being applicable to D3 because the disc curl was arranged above the container wall rather to the side. The functioning of D4 was therefore not compatible with that of D3. Moreover, it was unlikely that such a disc could be made from a one-piece blank.

The subject-matter of claim 1 therefore involved an inventive step.

Reasons for the Decision

1. Main request - Extension of subject-matter - Articles 76(1) and 123(2) EPC

During examination proceedings feature (j) whereby "the lower ring curl (25) has greater work-hardening than the upper curl (28)" was added. The respondent argues that this feature was disclosed on page 5, lines 30-31 of the parent application.

The respondent is correct in that the wording incorporated in the claim was to be found both in the earlier application and the application as originally filed. This is however the only disclosure of work-

hardening in the application. It is moreover in the brief description of Fig. 6C and consequently must be regarded as relating solely to this embodiment.

The embodiment of Fig. 6C does not have retention means (cf. Fig. 4D) and the disc is therefore axially movable between the upper curl and the lugs (see p. 5, l. 25). The retention means in other embodiments is achieved by folding the side wall of the ring. Such a fold indubitably increases the strength of the side wall of the ring. The fact that work-hardening is necessary for the embodiment of Fig. 6C but not for the embodiment of Fig. 4D indicates that the presence or absence of the retention means is linked to the work-hardening.

As the feature of work-hardening is indeed related to the retention means and is only disclosed in their absence, the subject-matter of claim 1 extends beyond both that of the earlier application (Article 76(1) EPC) and the application as originally filed (Article 123(2) EPC).

2. First auxiliary request

According to the first auxiliary request, the disc is free to move axially within the ring. The claim does not however specify to what extent the disc is free to move. Thus, embodiments with retention features allowing for some axial movement are still encompassed in the scope of the claim (cf. application, Fig. 4D). As discussed above for the main request, this leads to the subject-matter of claim 1 extending beyond both that of the earlier application (Article 76(1) EPC) and of the application as originally filed (Article 123(2) EPC).

3. Second auxiliary request

Claim 1 relates to a two-piece closure, i.e. a product. Claim 1 of the second auxiliary request includes the feature that "the plurality of lugs (26) lift the disc curl". This feature relates to an action, i.e. a method, and is only fulfilled when the lugs are actually lifting the curl, i.e. when the closure is being opened. Consequently, it is a method feature and its presence in the product claim renders the claim unclear (Article 84 EPC).

4. Third auxiliary request

4.1 Admission of this request

This request did not raise any issues that either the Board or the appellant could not be expected to deal with during the oral proceedings. The Board therefore admitted it into the proceedings.

4.2 Added subject-matter

According to the third auxiliary request the disc is free to move axially within the ring. As discussed above for the first auxiliary request, this formulation does not however exclude the presence of retention means as even with retention means the disc is free to move axially within the ring, albeit to a limited extent. Thus, the reasons for which the main and first auxiliary request were found not allowable also apply to this request.

5. Admission of D5 and D6

D5 and D6 were filed with the statement setting out the

grounds of appeal. This is after the nine month period of opposition given in Article 99(1) EPC. Moreover, the claim 1 is still as granted and there has been no change in subject-matter that would justify the filing of new documents.

The new documents are also *prima facie* not more relevant than those already in the proceedings. D5 concerns a one-piece closure rather than a two-piece closure as claimed. The ring does not therefore have an upper curl and consequently this document cannot teach that the lower ring curl has greater work hardening than the upper curl. D6 does not mention work-hardening.

In accordance with Articles 114(2) EPC and 12(4) RPBA, the Board did not admit these documents into the proceedings.

6. Auxiliary request 4

6.1 Admissibility

The second auxiliary request corresponds to the auxiliary request filed with the reply to the appeal and was therefore filed in good time (Article 12(2) RPBA). In order to overcome the objection raised for the first time during oral proceedings against the second auxiliary request, the respondent filed the fourth auxiliary request. Given the circumstances, this request could not have been filed earlier. Moreover, it merely incorporates a granted dependent claim into an existing request.

Moreover, the appellant had not objected in the written proceedings to the admission of the auxiliary request

filed with the reply to the appeal. Therefore, the objection that the auxiliary request should have been filed in first instance opposition proceedings is in itself late.

For the above reasons, the Board decided to admit the fourth auxiliary request into the proceedings.

6.2 Added subject-matter

The appellant argued that claim 1 still did not exclude the presence of retention features. However, according to the claim of this request the disc is freely movable in an axial direction between the upper curl and the plurality of lugs. This means that there can be no retention means in the closure defined by this claim and the appellant's argument is thus unpersuasive.

Moreover, the other points raised by the appellant have indisputably been addressed in this claim, i.e.
- that the lugs lift the disc by engagement with the disc curl,
- that the lugs ride on the container thread for closing and opening.

The requirements of Articles 76(1) and 123(2) EPC are thus met.

6.3 Inventive step

6.3.1 Starting from D2 as closest prior art

It is common ground that D2 discloses:
A two-piece metal closure for a threaded container, the closure comprising a disc (1) and a ring (2);
in which the disc fits in the ring (see Figs. 1 and 2);

the ring has a curl (5) at its free lower edge; and
the ring lower edge curl provides cut edge protection,
the closure further comprising:
a plurality of lugs (shown in Figs. 1 and 2 also with reference sign 5) which are formed in the curl and are spaced around the circumference of the ring; wherein:
both disc and ring are made from a one-piece metal closure blank (as shown in Figs. 3 - 5).

It was also common ground that features (i) and (j) were not known from D2.

The appellant also argued that feature (h) was known from D2 because in Figs. 1 and 2 the disc 1 has a curved edge at 101. The Board considers this unpersuasive because "curl", in its generally accepted sense, means something curved inwards or coiled. Similarly, the folded edge 7 also cannot be regarded as a curl. Therefore features (h), (i) and (j) are not known from D2.

The problem to be solved by feature (h) is to provide cut protection for the user.

The Board considers that feature (h) is not made obvious by the prior art because the closure of D2 relies on the deflection of the disc to form a seal. This may be seen in Figs. 1 and 2, see also col. 3, l. 22. Adding a curl to the disc 1 as shown in D4 would make the disc of D2 stiffer and thus alter how it bears on the seal. The skilled person would not recognise this step as an obvious measure.

It is therefore not necessary to examine whether features (i) and (j) are rendered obvious by the prior art.

The subject-matter of claim 1 therefore involves an inventive step in view of D2 as closest prior art.

6.3.2 Starting from D3

It is common ground that D3 discloses:
A two-piece metal closure for a threaded container,
the closure comprising a disc (2) and a ring (1);
in which the disc fits in the ring (see Figs.);
the ring has a curl (5) at its free lower edge; and
the ring lower edge curl provides cut edge protection,
the closure further comprising:
a plurality of lugs (shown in Figs. also with reference sign 5) which are formed in the curl and are spaced around the circumference of the ring;
wherein:
the ring has an upper curl (7),
the disc is freely movable in an axial direction between the upper curl and the plurality of lugs, and in that the plurality of lugs ride, in use, on a container thread for opening and closing (see Figs.).

The features (g) and (j) are not explicitly known from D3 nor that the lugs are adapted for lifting the disc and breaking the seal between the disc and the container. Whether these features were implicitly known from D3 is disputed by the parties but is not decisive for the outcome of this case.

It is common ground that feature (h), whereby the disc has a cut edge which is rolled into a curl, is not known from D3. This feature provides cut-edge protection for the user. It is known from D4 to provide such a curl, this is however in an arrangement wherein the curl is positioned above the container wall with

the ring pressing down directly on the disc in order to close the container. The arrangement of D3 on the other hand relies on the edge 402 of the disc being spaced apart from the container wall so that the disc can flex and curve as is illustrated in the figures. Due to this difference in the functioning of the closures of D3 and D4, the skilled person would not recognise that the teaching of D4 could be applied to D3.

Hence, the subject-matter of claim 1 involves an inventive step with respect to D3 as closest prior art.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent in amended form on the basis of claims 1 to 4 according to the fourth auxiliary request and description and figures to be adapted.

The Registrar: The Chairwoman:

C. Moser P. Acton

Decision electronically authenticated