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Datasheet for the decision of 17 October 2023

Case Number: T 0548/22 - 3.2.04

Application Number: 14730192.3

Publication Number: 2996521

IPC: A47J31/36, B65D85/804

Language of the proceedings: EN

Title of invention:
A BEVERAGE PREPARATION SYSTEM, A CAPSULE AND A METHOD FOR FORMING A BEVERAGE

Patent Proprietor:
Koninklijke Douwe Egberts B.V.

Opponents:
Belmoca BVBA
Société des Produits Nestlé S.A.
Delica AG
Caffitaly System S.P.A.

Headword:

Relevant legal provisions:
EPC Art. 54(2), 56, 83
EPC R. 103(1)(a)

Keyword:
Novelty - main request (no) - auxiliary request (yes)
Inventive step - (yes)
Sufficiency of disclosure - (yes)
Reimbursement of appeal fee - (no)

Decisions cited:

Catchword:

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Beschwerdekammern

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Case Number: T 0548/22 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 17 October 2023

Appellant: (Opponent 1)	Belmoca BVBA Weversstraat 24 1840 Londerzeel (BE)
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Respondent: (Patent Proprietor)	Koninklijke Douwe Egberts B.V. Vleutensevaart 35 3532 AD Utrecht (NL)
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Representative:	Santarelli Tour Trinity 1 bis Esplanade de la Défense 92035 Paris La Défense Cedex (FR)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 26 January 2022 concerning maintenance of the European Patent No. 2996521 in amended form.**

Composition of the Board:

Chairman	A. de Vries
Members:	G. Martin Gonzalez
	K. Kerber-Zubrzycka

Summary of Facts and Submissions

I. The appeals were filed by the appellant opponents 1, 3 and 4 against the interlocutory decision of the opposition division to maintain the patent in amended form.

II. The division held inter alia that the claimed invention was sufficiently disclosed and that upheld claim 1 was new and involved an inventive step over the cited prior art.

III. In preparation for oral proceedings the Board issued a communication setting out its provisional opinion on the relevant issues.

In-person oral proceedings before the Board were held on 17 October 2023 in the presence of appellant opponents 1 and 3 and the respondent proprietor.

As announced with letter of 2 October 2023 and of 6 October 2023, opponent 2 (party as of right) and the appellant opponent 4 did not attend the oral proceedings.

IV. The appellants (opponents 1,3 and 4) request that the decision under appeal be set aside and that the patent be revoked. Opponent 3 further requests reimbursement of the appeal fee.

The respondent proprietor requests that the appeals be dismissed and the patent be maintained as upheld by the opposition division (main request) or that the decision under appeal be set aside and the patent be maintained according to one of auxiliary requests 1 to 6 filed

with letter of 20 July 2023 (corresponding to previous auxiliary requests 6 to 9 and 12 to 13 filed with letter of 18 October 2022 which had already been filed in opposition with letter of 2 July 2021).

V. Independent claim 1 of the requests relevant to this appeal reads as follows:

(a) Main request - as upheld

"A beverage producing system comprising:
a capsule (1) containing beverage ingredients; and
a beverage preparation machine;
the capsule (1) comprising a cup-shaped body (40) and a lid (41); the cup-shaped body (40) having a base (42) and a side wall (43) and the lid (41) being sealed to the cup-shaped body (40);
the capsule (1) being designed for insertion into the beverage preparation machine to permit a pressurised liquid to be flowed through the capsule (1) in order to produce a beverage from interaction with the beverage ingredients;
the beverage preparation machine having an enclosing member (2) adapted to be selectively movable between an open position to permit insertion of the capsule (1) into the beverage preparation machine and a closed position in which the enclosing member (2) sealingly engages the capsule (1);
wherein, prior to insertion, the side wall (43) comprises:
- an annular trough (60) being dimensioned to receive the enclosing member (2) on movement of the enclosing member (2) into the closed position;
- a first side wall section (61) extending between the base (42) and the annular trough (60); and

- a second side wall section (62) extending between the annular trough (60) and a rim (47) of the capsule (1);
wherein the cup-shaped body (40) is formed from aluminium, an aluminium alloy or a laminate comprising at least one layer formed from aluminium or an aluminium alloy;
wherein the first side wall section (61), annular trough (60) and second side wall section (62) are formed integrally; and
wherein the annular trough (60) is adapted to form a sealing interface with a leading edge (23) of the enclosing member (2), and the side wall (43) is adapted such that during closure of the enclosing member (2) the side wall (43) is plastically drawn over the leading edge (23) of the enclosing member (2)."

(b) First auxiliary request

Claim 1 as in the main request with the following amendments (emphasis by the Board to indicate added or ~~deleted~~ text):

"...wherein the cup-shaped body (40) is formed from aluminium~~,~~ or an aluminium alloy and has a thickness in the range of 80 to 120 microns ~~or a laminate comprising at least one layer formed from aluminium or an aluminium alloy~~;
...the side wall (43) is plastically drawn over the leading edge (23) of the enclosing member (2),
wherein the cup-shaped body is formed from a single integral piece of material;
wherein, prior to insertion, the annular trough comprises an inner wall, an outer wall and a floor;
wherein the rim is formed integrally with the cup-shaped body by a rolled-over portion of the side wall."

VI. In the present decision, reference is made to the following documents:

(D1) WO 2010/137946 A1
(D4) WO 2013/136209 A1
(D7) EP 1 839 543 A1
(D8) DE 10 2008 014 758 A1
(D9) WO 2011/092301 A1
(D32) WO 2010/137954 A1
(D33) WO 2012/118367 A1
() Expert statement Prof. Dr. Ir. Patricia Verleysen, submitted by the appellant proprietor on 20 July 2023
() Expert statement Dipl.-Ing. Frank Schieck, Fraunhofer Institute for Machine Tools and Forming Technology IWU, submitted by the appellant proprietor on 20 July 2023.

VII. The appellant opponents' relevant arguments can be summarised as follows:

Claim 1 of the main request lacks novelty inter alia over D23, and the claimed invention is not sufficiently disclosed.

Claim 1 of the first auxiliary request lacks inventive step starting from D8 or D4. The invention is not sufficiently disclosed.

Appellant opponent 3 further argued a substantial procedural violation which would justify reimbursement of the appeal fee.

VIII. The respondent's relevant arguments can be summarised as follows:

Claim 1 of the main request and first auxiliary request is new and involves an inventive step over the cited prior art. The claimed invention is sufficiently disclosed.

Reasons for the Decision

1. The appeals are admissible.

2. Background

The invention is directed to a beverage preparation system of the type comprising a capsule for insertion into a beverage preparation machine with pressurised liquid flow through the capsule, cf. specification paragraph [0001]. The aim of the invention is to provide an alternative capsule structure that is economical and provides effective sealing, cf. paragraph. [0003]. To this end, the capsule side wall is formed integrally from aluminium, an aluminium alloy or a laminate comprising a layer formed from aluminium or an aluminium alloy, cf. paragraphs [0022], [0031]. The capsule side wall has a flange-like rim area with a trough structure to receive the leading edge of the machine enclosing member, cf. paragraphs [0006],[0009]. During closure the side wall area is plastically drawn over the leading edge of the enclosing member. This allows the side wall to be conformed to the shape of the enclosing member to provide a sealing interface, cf. paragraph [0015].

3. Main request -Novelty

3.1 The appellants contest the conclusion of the opposition division that claim 1 as upheld is new over D23, as stated in the impugned decision section 1.3.2.11.2.

3.2 It is common ground that D23 discloses a beverage producing system with a coffee capsule 1 made of aluminium or aluminium alloy, as indicated in D23 on page 5, lines 22-26, designed for insertion into a beverage preparation machine featuring a pressurized chamber with an enclosing member 2, as defined in the contested claim. The known capsule with a base 11 at the upper end, a lid at the other and a conical side wall 13, has a protruding edge 14 including a sealing element 3 formed as a rolled over edge, see the figures. The bottom of the capsule side wall 13, the edge 14 and the upstanding rolled over edge 3 form what can be identified as an annular trough dimensioned to receive the enclosing member 2, as illustrated in the closing sequence shown in Figures 1-3 where the annular trough formed between the bottom of the side wall 13 and region 34 of the rolled over portion 3 receives the leading edge of the enclosing member 2, as claimed. As is evident from figure 3, showing the final closed position of the enclosing member 2 with its leading edge pressed against a counterpart 2 with the edge and sealing element between them, this annular trough is designed to form a sealing interface with the leading edge of the enclosing member 2, as described in detail on page 10, lines 18-28. Between the bottom side wall forming part of the trough the rest of side wall 13 can be identified as a first side wall section extending between upper base and the annular trough in the sense of the claim.

3.3 It remains to be determined whether D23 also discloses a second side wall section that extends between the annular trough and a rim of the capsule; that during closure the capsule side wall is plastically drawn over the leading edge of the enclosing member; and that the lid is sealed to the cup-shaped body. The appellant opponents argue that these features are also disclosed in D23.

3.4 The respondent argues, as did the division, that the known capsule does not include a second side wall section between rim and trough as required by the contested claim. They see the rim 47 as formed by the rolled-over portion 48. In D23 there would then be no wall section between the trough and what is seen to be the rim, namely rolled over portion 3, which forms the side wall of the trough.

3.4.1 The Board sees this differently. It may be that the term "rim" can mean in a given context "the discernibly distinct outer edge, edging or border forming part of an object, as the brim of a hat ..." (OED, meaning 1.b.). However, it is not apparent to the Board that in the present context such a limited reading applies. That might have been so if, as in the example of the brim of a hat given in the OED, it had been meant to denote the entire edge projecting side ways from the conical capsule body, thus including the rolled over portion and trough, but that is clearly not the case here as follows from the claim language itself. Nor is there any other compelling reason to believe that the term is usually used to denote the rolled over or curved portion on the projecting "brim".

3.4.2 The Board must therefore rather give the term "rim" its broadest possible and technically sensible reading as

is established practice in jurisprudence, here to denote the "edge, verge, border, or margin of something", see OED, meaning 1.a. In that reading the rim would be the second region 32 on the rolled over portion's. This portion is the outer edge of the rolled over portion and forms an angled border or margin of the entire protruding edge 14. It is separated from the trough with outer wall at region 34 by the intermediate third region 33 that forms the top of the rolled over portion. As in the wording of the claim the capsule wall extends up to (and may include) the rim, this region 33 is then seen to correspond to the second wall section of the claim. The Board notes that the claim language imposes no other constraint, either in shape, orientation or extent on this second wall section.

3.4.3 The Board thus concludes that D23 indeed discloses a second side wall section in the sense of the contested claim.

3.5 This leaves the final claim feature which states that the side wall is "plastically drawn over" the leading edge of the enclosing member. The parties dispute the interpretation of this feature.

3.5.1 The respondent refers to accepted technical terms such as "drawing" or "deep drawing," where plastic deformation is primarily induced by tensile forces, as supported by the expert statements submitted with the respondent's letter of 20 July 2023. In their view the term is meant to capture the type of deformation that ensues from the interaction between the enclosing member leading edge and the trough, as shown in all embodiments and which would be predominantly due to tensile forces.

3.5.2 The Board sees this differently. Firstly, the final feature relates more generally to the side wall - not just the trough - being "drawn over" rather than "drawn by" the leading edge. Secondly, and more importantly, plastic deformation is seen to be effected in a fundamentally different manner in the embodiments of figures 1 to 6 on the one hand and figures 7 to 18 on the other. Both are meant to be covered by this formulation as stressed by the respondent.

3.5.3 All embodiments feature a ridge zone 63 between the trough at 64 and the rolled over edge at 47, which is deformed upon lowering of the enclosing member leading edge 23, cf. figures 6, 12 and 18.

In the first embodiment shown in Figures 3-6, and described in paragraphs [0072] to [0073], the leading edge 23 of the enclosing member acts on the trough's floor at 64 to push it downwards against the base 20 causing deformation of the ridge zone 63, see figures 4 and 6, which can be seen to induce tension stresses and thereby plastic deformation in the outer side wall of the trough as the floor of the trough moves downwardly from a position (figure 4) spaced from the base 20 to a position where it rests and is pressed against it (figure 6). This causes the ridge zone 63 to pivot inwards to bring its apex 67 and/or trough wall 66 into sealing engagement with the outer face of 24 of the enclosing element, paragraph [0072].

However, in the alternative embodiments of figures 8 to 12 and figures 13 to 18, plastic deformation is effected differently. Here the leading edge 23 of the enclosing member includes a recess 23c which receives the apex 67 during closing movement of the enclosing element, paragraph 0082. As stated there "the action of

the enclosing member 2 on the outer wall 66 and or apex 67 [causes] the outer wall 66 of the annular trough and the outer wall 66 of the ridge zone 63 to *buckle and deform/crumple*" [emphasis added]. Such buckling or crumpling is undoubtedly not a deformation as the result of tensile forces, i.e. because of drawing in the conventional sense. The respondent refers to the immediately following sentence that states that "[during] this movement, the material of the outer wall 66 of the annular trough 60 may be plastically drawn over the leading edge to conform the outer wall 60 of the annular trough 60 to the grooves or indentations [of the leading edge]" as indicative of plastic deformation as a result of tensile stresses in the trough outer wall 66 resulting from the downward movement of the enclosing element. It may be that at the point of contact of the leading edge on the inclined surface 66 the trough wall may be pushed laterally outwards in the plane perpendicular to the capsule's axis. However, whatever tensile stresses this movement might produce, if at all, they are of minimal significance in producing plastic deformation and sealing at the edge portion of the capsule, which will be concentrated in the crumpled ridge zone. The trough's side wall has a substantial degree of inclination at the lower contact point (the wall is close to the vertical), resulting in minimal lateral movement. This is all the more so as, in contrast to the first embodiment, see figure 6, the leading edge 23a does not engage with the trough floor 64 but remains spaced therefrom also in the closed position shown in figures 12 and 18, cf. column 7, lines 7-10 and 18-21. Thus, in these embodiments plastic deformation is mainly if not exclusively caused by compression forces.

3.6 As the respondent insists that the claim wording is meant to cover also these alternative embodiments, the Board can but conclude that the final feature is to be interpreted more broadly. In the light of these considerations, the feature "plastically drawn over" is understood as not limited to plastic deformation caused by tensile forces but also that caused by compression.

3.7 Turning again to D23, the leading edge 21 deforms the region 34 of the rolled over member during closure, conforming region 34 to the external concavity of the leading edge and achieving sealing, as indicated on page 10, lines 18-28. As is immediately clear the "deformation of the rolled over edge" which forms part of the capsule sidewall in the wording of the claim can only be the result of compression, and must fall within the broad interpretation of "drawn over" given above.

3.8 The respondent proprietor points to passages in D23, page 10, line 30 to page 11, line 12, to argue that the sealing and plastic drawing over do not occur during closure of the enclosing member, as claimed, but during the extraction step when pressurized water enters the interior space 35 of the rolled over portion.

However, the Board is unconvinced by this argument. The deformation resulting from water entering the rolled over portion is subsequent to and additional to that effected as a result of engagement of the enclosing member and the rolled over portion. Thus, sealing through plastic deformation is already achieved before the extraction process begins and thus before pressurized water is supplied, as can be inferred from page 10, lines 24-26, which in reference to the closing process described in the preceding lines states that "This deformation ... achieves fluid-tight contact...".

3.9 The Board is also not persuaded by the respondent's argument that the external concavity or sealing region 21 of the leading edge would not be part of the leading edge in the sense of the claim. The patent itself in the embodiments of Figures 7-18 discussed above and which are are expressly said to be covered by claim 1 regards recess 23c as part of the leading edge.

3.10 Finally, even if D23 does not expressis verbis state that the capsule lid is sealed to the cup-shaped body, this is considered an implicit feature of coffee capsules. The Board is unaware of coffee capsules of the present type where lid and capsule body would not be sealed, nor has evidence to the contrary been presented.

3.11 In summary, the Board finds that D23 discloses all the features of granted claim 1. Therefore, contrary to the division's conclusion, the Board holds that upheld claim 1 is not new in light of D23, Art 54(2) EPC. Consequently, the impugned decision must be set aside.

4. First auxiliary request - Novelty

4.1 At the oral proceedings the appellant opponent 1, in reference to the section 10.4 of the Board's communication, argued lack of novelty of the system of claim 1 over D23.

4.2 Claim 1 has been amended to specify, among other things, that the rim is formed integrally with the cup-shaped body by a rolled-over portion of the side wall. According to the Board's assessment, this additional feature renders claim 1 novel compared to D23.

4.3 Indeed, this additional feature now necessitates, in contrast to the main request, that the rolled-over portion forms part of the rim. As a consequence the claim wording is now read to require the presence of a second side wall section between the annular trough and the rim formed by the rolled over portion and thus separating the two.

4.4 This specific structure is not found in the capsule described in D23, where the trough and the rolled-over rim share a common wall, portion 34 of the rolled-over rim. In other words, D23 does not disclose the presence of a second side wall section separating the trough and the rim, as claimed. Therefore, claim 1 defines novel subject-matter.

5. First auxiliary request - Inventive step.

5.1 During the written appeal proceedings, only appellant opponent 1 submitted objections against this auxiliary request, see the explicit reference in the table of section 8 of their grounds of appeal for corresponding auxiliary requests 6 and 7 to section 13 of their letter dated 29 January 2020, which was submitted before the opposition division. In that section, inventive step objections starting from D8 and D4 were raised. As these were seen to be validly raised and maintained, these objections were discussed during the oral proceedings before the Board.

5.2 Starting from D8, this document discloses a capsule wall made of a laminate material comprising a layer 6 of aluminium, as stated in paragraph [0025]. The capsule has a sealing edge with a depression ("Vertiefung") 11, which during the closure of the enclosing member 12, as shown in Figs. 3 and 4, is

compressed to form a sealing interface, as explained in paragraph [0028].

In the Board's view, neither depression 11 nor either of the two recessing areas on either side of it define a trough that is dimensioned to receive the enclosing member as it moves into the closed position as required by claim 1. A technically sensible reading of these features has at least part of the enclosing member received within the trough. That is manifestly not the case in D8. Figures 3 and 4 of D8 indeed show the capsule and enclosing member upside-down compared to the corresponding figures of the patent, so that what is described in D8 as a depression is in fact a protrusion from the point of view of the leading edge bearing down on it.

5.2.1 Leaving aside the claimed side wall thickness values (which in any case appear commonplace for aluminium capsules), the key difference of claim 1 vis-a-vis D8 resides in the feature of the annular trough dimensioned to receive the leading edge of the enclosing member during closure. The parties appear to agree that this feature results in improved sealing and the objective technical problem can be formulated accordingly.

5.2.2 The appellant opponent 1 relies primarily on the disclosure of D1. In particular, they point to Figure 9 and the corresponding description on page 25, lines 12-26 of D1 describe a further outermost ridge 40 designed to abut against the outer circumferential surface of the enclosing member, thereby enhancing the sealing engagement between the capsule and the enclosing member. The appellant opponent 1 asserts that a skilled person seeking to improve sealing would apply

this idea to the system of D8 as a matter of obviousness. This would result in an additional ridge external to the enclosing member, effectively creating a trough in line with the contested claim with protrusion 11 (of D8) at the bottom of the trough.

However, the Board is not convinced that a skilled person would readily apply these specific teachings of D1, which, as acknowledged by all parties, pertains to capsules made of plastic material, to the aluminium capsule of D8 as an obvious step. As is evident from the figures of D8 the ridges are solid, which is possible by virtue of the fact that they are made of plastics material. In the Board's view the skilled person, an engineer designing coffee capsules and familiar with the various materials used and their properties, would not as a matter of course consider adopting structures that are designed specifically to be made of one particular material, for capsules made of another material. For example, it is evident that a solid ridge as taught in D1 could not simply be transposed to an aluminium capsule as in D8, as this results in a ridge that would be much to stiff to fulfill its sealing purpose which is predicated on its plastics properties. If they might at all consider adopting a similar structure it would require modifications, which the Board sees as going beyond the normal, routine skills of the skilled person. Therefore, the Board is not convinced that a skilled person would consider these teachings of D1 for the aluminium capsule of D8 as an obvious solution.

5.2.3 Similar arguments apply for the combination of D8 and D33. D33 teaches a separate resilient sealing element which is laid on top of a flat capsule flange, see figures (e.g. part 305 in figure 4). If the skilled

person were to look to D33 to improve sealing they would add a similar resilient element to the flange of D8, and would thus arrive at something different from what is claimed, as claim 1 now requires the cup shaped body including its wall with its sections, the trough, and the rim to be formed integrally from a single integral piece of material. In the Board's view they would in any case not as a matter of course abstract only the shape without the resilient material.

5.3 D4, is an intermediate document said to be full Article 54(2) prior art, rather than only Article 54(3) prior art, because of an invalid claim to priority by the patent. The inventive step argument starting from D4 also fails to convince for the following reasons, so that the issue of priority can be left undecided.

5.3.1 The system shown in Figure 1 of D4 with detail of the sealing action shown in figure 5 closely resembles the system depicted in Figures 12 and 18 of the patent. Therefore, D4 discloses a capsule wall trough, specifically annular groove 21 between a ridge 22 and the capsule wall 6, and an enclosing member 9 with a leading edge 12 with a recess 20. As in the embodiment of figures 12 and 18 of the patent, during closure the leading edge recess 20 receives the ridge 22 while a leading edge portion 19 is received in the groove 21 in order to establish a sealing interface, see figure 5. The leading edge of the enclosing member plastically deforms the ridge including the wall 31, as indicated on page 10, lines 19-21, in the same manner as in the embodiment of figures 12 and 18 of the patent.

5.3.2 Though D4 at page 4, lines 30-31 indicates that the capsule body may be made of (e.g. injection moulded) plastics material or metals, the detailed embodiment of

figure 5, the starting point for assessment of inventive step, is seen to relate to a plastics capsule. This is apparent from figure 5 which shows the perimetric edge 7 to be much thicker than the thin wall 6. In the Board's understanding, in this context considering the size, shape and structure of the capsule, this can only have been achieved by moulding, which is typical for plastics. Thus, even if metals may be mentioned as an alternative, in the Board's view that does not apply to the capsule and seal design that is shown in figure 5, which it thus sees as being specific to plastic.

In any case, D4 does not mention aluminium as metal for the capsule body, even though it does so for the capsule lid 8 in the immediately following lines, page 5, lines 1 -3). Even if, as argued it may be the prevalent metal for capsules, it is certainly not the only suitable material, with tin and stainless steel springing to mind.

Finally, D4 indisputably neither states thickness values for the wall of the capsule, nor does it disclose a rim formed by a rolled over portion separated from the trough by second wall portion.

The claimed system, therefore, differs from the known structure of D4 in aluminium or aluminium alloy as capsule wall material, its thickness in the range of 80 to 120 microns, and the rim being s formed by a rolled-over portion.

5.3.3 As stated D4 already suggests metal as an alternative for the capsule body. However, D4 lacks any detail as to how to realize the capsule and seal design if made from metal. As stated the Board sees the seal design of

figure 5 and indeed, for the same reason, all other designs shown in D4, as specific to plastic. Indeed, because the perimetric edge 7 including the ridge 22 is so thick the seal only conceivably works for material that is sufficiently plastically deformable, i.e. plastics and not metal which would be much too stiff at that relative thickness. Therefore, it is not readily apparent to the skilled person, even when taking their common general knowledge into account, how the invention described in D4 could be implemented using metal, let alone that this specific material would be implicit. The Board thus sees the corresponding technical problem, when starting from the system with plastic can thus be formulated as how to implement the teaching of figure 5 of D4 in metal.

5.3.4 The Board agrees that aluminium (or alloys thereof) are per se an obvious choice if the capsule is to be made of metal. Similarly, thickness values claimed are not considered to be anything out of the ordinary, if something the size and shape of a hollow capsule were to be manufactured from metal using an appropriate metal working technique such as deep drawing. It may also be that rolled over rim portions are a known feature of capsules made of aluminium.

However, the skilled person, starting from the figure 5 plastics seal design of D4, must still somehow realize it in aluminium. It would be clear to them that that design does not lend itself for simple, straightforward realization in metal as the perimetric edge would be much too thick (in comparison to the wall of the capsule body) to produce the required plasticity of the ridge to produce a seal under normal closure conditions and forces. That would require modification of the design, in particular such that, when made from metal

(aluminium), the ridge and groove exhibit the same or similar plastic deformation as in the plastics seal design of figure 5 to replicate its sealing action. In the Board's view this would require modification of not only relative thickness of the perimetric edge but also of the shape and size of its groove and ridge portions, as well as concomitant changes in the shape of the leading edge of the enclosing means. The Board sees such further modification requiring an effort that goes beyond the routine effort involved in trial and error or other routine design approaches. This finding is irrespective of whether or not there is a synergy between all the differing features as argued by the respondent.

5.4 The Board thus concludes that the subject matter of claim 1 involves an inventive step over the cited prior art combinations.

6. First auxiliary request - Sufficiency of disclosure

6.1 In the written proceedings, the opponents contested the findings of the division, that also hold for the first auxiliary request, that the patent is sufficiently disclosed, cf. section 1.2 on page 9 of the impugned decision. During the oral proceedings, the opponents merely referred to their written submissions. As noted by the Board in its preliminary opinion, these objections are not convincing:

"*11. Sufficiency of disclosure*

11.1 The objections of insufficiency of disclosure are not convincing.

11.2 An invention is in principle sufficiently disclosed if at least one way is clearly indicated enabling the person skilled in the art to carry out the invention, cf. Case Law of the Boards of Appeal, 10th edition (CLBA), H.C.5.2.

11.3 Opponent 4 submits that the skilled person would not be able to carry out the feature of a capsule side wall that is plastically drawn over the leading edge of the enclosing member. The expression "plastically drawn", so the argument goes, is only present in paras [0015], [0073], [0082] and [0094] of the patent with no explanation of its meaning and how it can be achieved. It however appears to the Board that all cited paragraphs characterize the contested feature as a plastic deformation of the capsule wall so as to conform it to the shape of the leading edge, see e.g. para [0094] (and similar statements in the other paragraphs): "During this movement the material of the outer wall 66 of the annular trough 60 may be plastically drawn over the leading edge 23 to conform the outer wall 66 of the annular trough 60 to thegrooves or indentations to provide an effective seal." The Board has no difficulty in understanding what is meant thereby. Thus, this feature is sufficiently disclosed.

11.4 The patent specification indicates at least three different ways to carry out the claimed system. Embodiment of figures 1-6 and described in paras [0057]-[0073], that of figures 7-12 and paras [0075] — [0086] and a third embodiment in figures 13-18 and paras [0087]-[0098]. They provide information as to possible shapes, as shown in the figures, enclosing member travel path and describe different elements dimensions like dimensions of the trough or capsule

wall thickness in the corresponding paragraphs. The skilled person an engineer involved in the development of coffee capsule systems, will have common general knowledge in the field of materials and plastic deformation or access thereto. The skilled person, using such knowledge and routine design or trial and error abilities, should have no problem to carry out the described embodiments or to develop other possible variants of the claimed invention.

11.5 It also does not appear to the Board, contrary to the opponent 4 submissions, that the deformations shown in figures 5,6 are mechanically inconsistent. The circular ring shape of the ridge 67 and skirt wall 63 hold the "elevated" capsule away from element 20 in figure 4. Their ring shape and the cup body cylindrical shape oppose radially inwardly deformation and also downward forces on the trough as that of the enclosing member 22. The deformations of the capsule side wall shown in figure 6 caused by the downward movement of the enclosing member are mechanically consistent with the above described constraints.

11.6 The statement in the minutes, section 14, that certain description passages of the above embodiments "only relate to the disclosure, and not to the invention" is not an admission of the respondent proprietor that the described embodiments do not represent working embodiments of the claimed invention. This would be contradictory to the rest of the proprietor's arguments on sufficiency of disclosure. This statement was in the context of the adaptation of the description to the new claims. The Board reads it to mean that those paragraphs do not need adaptation.

11.7 The appellants also submit that the skilled person is not able to implement the invention over the entire range of the claims. They argue that claim 1 is very broad since it does not limit the enclosing member shape, in particular its leading edge shape, or the enclosing member closing trajectory. Various conceivable enclosing member shapes or trajectories, falling within the range or breadth of the claim, may not achieve the claimed effect of forming an effective sealing interface with the capsule wall.

However, in claimed inventions that do not involve a range of parameter values or compositions basing an argument of insufficiency on this approach is unconvincing. This is especially so where, as in the present case, the invention is directed at a broadly defined concept expressed in terms of generic structural or functional features of an apparatus. There it normally suffices to provide a single detailed example to illustrate how this concept can be put into practice, cf. Case Law of the Boards of Appeal, 10th edition (CLBA), II.5.2., in such a way that the underlying principles can be understood by the relevant skilled person and they can reproduce the claimed invention using their common general knowledge without undue burden, CLBA, II. 4.1. It is thus not enough to demonstrate insufficiency to conceive examples falling within the terms of the claim that do not work because they do not achieve the claimed effect fully or at all. Such examples do not prove that the claimed concept does not work; rather it reflects the limitations that are inherent in any approach and which will provide the scope for future (inventive) development, see in this respect ***T 0500/20****, r. 3.6.*"

6.2 Absent any further submissions, the Board sees no reason to change its preliminary point of view. It thus holds that the invention as claimed by auxiliary request 1 is sufficiently disclosed, Art 83 EPC.

7. Request for reimbursement of the appeal fee.

7.1 With their grounds of appeal opponent 3 requests reimbursement of the appeal fee due to a substantial procedural violation. As noted by the Board in its preliminary opinion:

"*6. Request for reimbursement of appeal fee.*

There appears to be no substantial procedural violation that justifies reimbursement of the appeal fee. Contrary to the submissions of appellant opponent 3, the opposition division considered and addressed their novelty argument for D8 that the recessed area between protrusion 11 and the capsule's lateral wall would anticipate the claimed trough, which according to claim 1 is configured to receive the enclosing member, cf. section 1.3.2.7.2 of the impugned decision: "... and the recessed areas neighbouring said protrusion are not clearly and unambiguously configured to receive the enclosing member." Even if the division had overlooked one amongst the many arguments presented by the parties in respect of the large number of prior art documents the Board is unable to see herein a procedural violation that could be called substantial and which would have made reimbursement of the appeal fee equitable. In this case the Board is in no doubt that the division in its decision addressed the core arguments of the case brought by the parties against the patent."

7.2 During the oral proceedings before the Board the appellant opponent 3 refrained from making further comments and referred to their written submissions. Absent further comments the Board sees no reason to change its preliminary opinion. It therefore refuses the opponent 3 request for reimbursement of the appeal fee, Rule 103(1)(a) EPC.

8. For the above reasons the Board finds that the decision was wrong in concluding novelty for the maintained claims and it must therefore put it aside. It also holds that the claims as amended according to auxiliary request 1 meet the requirements of the EPC. It was further established at the oral proceedings before the Board that further and various necessary amendment to the description to bring it in line with the invention now claimed could be more appropriately dealt with in writing, all parties pledging to cooperate constructively.

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 with the following claims and a description to be adapted thereto:**

   Claims:
   1 - 7 of the auxiliary request 1 filed with letter of 20 July 2023

3. **The request for reimbursement of the appeal fee is refused.**

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated