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**Datasheet for the decision
of 9 September 2019**

Case Number: T 2444/16 - 3.2.04

Application Number: 12174373.6

Publication Number: 2510843

IPC: A47J31/36, B65D85/804

Language of the proceedings: EN

Title of invention:

System, capsule and method for preparing a beverage

Patent Proprietor:

Koninklijke Douwe Egberts B.V.

Opponent:

UNILEVER PLC/ UNILEVER N.V.

Headword:

Relevant legal provisions:

EPC Art. 54(2), 54(3), 56

Keyword:

Novelty - main request (no) - auxiliary request (yes)
Inventive step - (yes)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 2444/16 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 9 September 2019

Appellant: Koninklijke Douwe Egberts B.V.
(Patent Proprietor) Vleutensevaart 35
3532 AD Utrecht (NL)

Representative: V.O.
P.O. Box 87930
2508 DH Den Haag (NL)

Respondent: UNILEVER PLC/ UNILEVER N.V.
(Opponent) A company registered in England and Wales under
Company no. 41424 of Unilever House
100 Victoria Embankment/Weena 455
London
Greater London EC4Y 0DY/GB /3013 AL Rotterdam/NL
(GB)

Representative: Willett, Christopher David
Nash Matthews LLP
24 Hills Road
Cambridge CB2 1JP (GB)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
18 August 2016 concerning maintenance of the
European Patent No. 2510843 in amended form.**

Composition of the Board:

Chairman G. Martin Gonzalez
Members: J. Wright
C. Heath

Summary of Facts and Submissions

I. The appellant-proprietor lodged an appeal, received on 28 October 2016, against the interlocutory decision of the opposition division posted on 18 August 2016 concerning maintenance of the European Patent No. 2 510 843 in amended form, and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 23 December 2016.

II. Opposition was filed under Article 100(a) EPC based on lack of novelty and of inventive step. The opposition division held that the patent as amended met the requirements of the Convention, having regard, *inter alia*, to the following evidence:

(D1) US 2003/0056661 A1

(D2) US 2009/0098253 A1

(D4) EP 2 239 212 A1

(D5) US 2008/0148958 A1

III. The appellant-proprietor requests that the decision under appeal be set aside and that the patent be maintained as granted, or in the form of the first or second auxiliary request as filed with the grounds of appeal, or that the appeal be dismissed (third auxiliary request).

The respondent-opponent requests that the decision under appeal be set aside and that the patent be revoked.

IV. The board duly summoned the parties to oral proceedings, to take place on 9 September 2019. In an annex to the summons it made provisional observations on the relevant issues.

With letter of 10 April 2019 the respondent opponent withdrew their request for oral proceedings and stated that they would not attend the oral proceedings.

Oral proceedings before the board were held on 9 September 2019 in the absence of the respondent-opponent.

V. Independent claim 1 according to the relevant requests reads as follows:

(a) Main request (as granted)

"Open capsule (2) for preparing a predetermined quantity of beverage suitable for consumption using an extractable product, comprising:

a substantially rigid circumferential wall (6), a bottom (7) closing the circumferential wall at a first end (8), and a lid (9) comprising a flexible sheet-shaped perforate and/or porous material closing the circumferential wall at a second, open, end (10) opposite the bottom, wherein the circumferential wall (6), the bottom (7) and the lid (9) enclose an inner space (11) comprising the extractable product, the open capsule (2) being characterized in that the lid (9) comprises an impermeable outer circumferential area (30) and an exit area (32) being enclosed by said impermeable outer circumferential area (30), wherein the impermeable outer circumferential area (30) extends from the circumferential wall (6) radially inward, such that, in use, the prepared beverage is drained from the capsule by actively forcing the prepared beverage through the exit area (32)."

(b) First auxiliary request

Claim 1 as in the main request, with the following features added at the end of the claim (emphasis added by the board to indicate modified text)

"..., and wherein the exit area (32) comprises 75-170 openings, preferably 90-150, more preferably 100-125 openings, wherein an opening diameter is between 0.4 mm ± 0.05 mm and 0.2 mm ± 0.05 mm, preferably approximately 0.3 mm ± 0.05 mm."

VI. The appellant-proprietor argued as follows:

Claim 1 of the main request (as granted) is new over the cited prior art, in particular over the Article 54(3) EPC document D4. Claim 1 of the first auxiliary request is new and involves an inventive step in view of D1, D2, D4 and D5.

VII. The respondent-opponent argued as follows.

Document D4 anticipates the subject-matter of granted claim 1 (main request). This claim is therefore not new. Claim 1 of the first auxiliary request lacks novelty or inventive step over the disclosures D1 (embodiment of figures 18,19), D2 and D5, having also regard to the common general knowledge of the skilled person.

Reasons for the Decision

1. The appeal is admissible.
2. Background

The invention relates to capsules for preparing beverages from an extractable product (coffee), of the "open type", i.e. the lid has perforate or porous sections and is thus open to ambient atmosphere, see specification, paragraph [0002]. In use, an extracting apparatus receives the capsule in a receptacle. The apparatus supplies fluid through the bottom of the capsule while the lid abuts against a support surface of the receptacle. The extracted liquid drains through the lid and through the support surface to the system outlet, see specification paragraph [0001]. The claimed invention aims at minimising possible leakage of prepared beverage that may occur between the capsule lid and the abutting support surface through the periphery, that would so bypass the outlet of the system, see paragraphs [0003]-[0004]. With this aim, the capsule lid is provided with an impermeable outer circumferential area so that the extracted liquid is forced to exit through the central porous or perforated section of the lid, minimising peripheral leakage risk, see paragraph [0006].

3. Main request - novelty
 - 3.1 The appellant-proprietor challenges the finding of the opposition division that claim 1 of the granted patent is anticipated by the embodiment of figures 5 and 6 of D4, an Article 54(3) EPC prior art document.

3.2 It is not in dispute that D4 discloses a capsule with a substantially rigid circumferential wall 2, a bottom 8 and a lid 31, 32 that enclose an inner space comprising ground coffee. The appellant-proprietor also no longer contested at the oral proceedings that the sheet 32 of the lid is flexible. Indeed, in the general part of the description, it is disclosed that either the two lid layers can be flexible foils or a combination of flexible and rigid elements, see paragraphs [0031] and [0032] of D4. Turning to the specific description of the embodiment of figures 5,6, the lid inner layer 31 is described as being a rigid element, see paragraph [0053]. From the above passages read in conjunction with the embodiment of figures 5,6, the board concludes that the other lid element 31 is the flexible element and thus a flexible sheet. D4 therefore describes a lid 31, 32, comprising a flexible sheet-shaped material 32 closing the circumferential wall 2 at its open end, see also figure 5, as in the contested claim. The lid of D4, figures 5,6, also comprises an exit area for draining prepared beverage from the capsule, provided by the perforations 41 in the membrane's 32 central area, enclosed by an outer circumferential area of the membrane 32 without orifices or openings.

3.3 The appellant-proprietor argues that, since there is no express mention that the outer layer 32 is impermeable, the feature of claim 1 that the outer circumferential area of the outer layer is impermeable is not directly and unambiguously disclosed. They submit that the outer layer 32 of D4 could be e.g. a porous paper filter layer. Granted claim 1 would thus be new over this embodiment of D4.

3.3.1 The board however notes that the embodiment of figures 5,6 is described as forming a beverage delivery flow

path, see paragraph [0052]. A flow path implies, for the skilled person, that the flow is allowed only through the defined path and that the boundaries defining it do not allow liquid flow or leakage to the outside, i.e. they are impermeable. This is the case for the outer circumferential area of the flexible perforated layer 32, forming a boundary of the described labyrinth flow path.

Indeed, paragraph [0052] describes that the gap between the two layers 31, 32 together with the transversal circular walls separating the layers 36, 37 form a labyrinth structure. Beverage is allowed into the gap - namely into the external concentric rings within the gap - through perforations 38 on the inner layer 31, see paragraph [0053]. Transversal openings 61, 62 on each wall 36, 37 separating the concentric sections within the gap offer "a restriction passage for the beverage flow path" into the central circular space of the gap, see paragraph [0053]. The outlet is then finally provided by the central perforations 41 on the outer layer 32 out of the gap. It is, moreover, explicitly described in paragraph [0055] that the outer layer 32 is sealed at sealing lines 33, 34 to the raised portions or labyrinth walls 36, 37 to avoid bypass, so that "it is assured that the beverage entering the gap is forced through the restriction opening(s) 60, 62" into the central area of the gap. In other words, that no other exit flow path, e.g. through the outer circumferential area, is allowed. Therefore, the outer circumferential area of the outer layer 32 defines a boundary of that labyrinth flow path that also avoids liquid bypass and thus liquid flow through it, i.e. it is impermeable.

3.3.2 The appellant-proprietor also cites paragraph [0041] of D4 describing that "coffee extract can flow through substantially the entire surface of the [outer] layer". This passage however refers to the embodiment of figure 3 and explicitly explains that this is achieved by distributing the orifices over a wider area of layer 9 of that embodiment (figure 3), which is a different distribution compared to the orifices 41 on layer 32 of figure 6, that are only located in the central area. Thus, the argument does not apply to the above discussed embodiment of figures 5,6.

3.3.3 From the above, the board concludes that D4 clearly and unambiguously discloses an embodiment, that of figures 5 and 6, wherein the outer circumferential area of the flexible perforated layer 32 is impermeable.

3.4 In sum, the board concludes that all features of granted claim 1 are anticipated by the embodiment of figures 5 and 6 of D4. Thus, its subject-matter lacks novelty in the sense of Article 54(3) EPC.

4. First auxiliary request

First auxiliary request is a combination of granted claims 1 and 15. The new claim 1 now further requires that the exit area comprises 75-170 openings, wherein an opening diameter is between $0.4 \text{ mm} \pm 0.05 \text{ mm}$ and $0.2 \text{ mm} \pm 0.05 \text{ mm}$.

4.1 Novelty

4.1.1 The exit area of the embodiments disclosed in D4 have either 5 (figure 3) or 3 openings (figure 6). Claim 1 is therefore new over the Article 54(3) EPC document D4.

- 4.1.2 The embodiment of Document D1 cited by the respondent-opponent (embodiment of figures 18,19) does not disclose the claimed number and size of openings but four precut slits 125 for the beverage exit.

As regards D2, assuming for the sake of argument that the bottom part 2 of the body of the known capsule 1 of D2 can be considered a "lid", this lid is not structured as claimed. The claim requires that the lid comprises a flexible sheet-shaped porous material that *closes the circumferential wall*, i.e., in the board's understanding, the flexible perforate or porous sheet must cover the entire opening left by the circumferential wall. The flexible sheet or material must thus be attached to the circumferential wall to close it. In contrast, the flexible porous filter of the bottom part 2 only closes an opening of that bottom part 2 that is otherwise rigid. The board thus concludes that D2 does not disclose a flexible porous material *closing* the circumferential wall.

D5 describes a pad, and not a capsule, that is furthermore generally flexible and is made of filtering paper, thus lacking also the claimed perforations.

- 4.1.3 The board therefore concludes that the subject-matter of claim 1 of the first auxiliary request is new.

4.2 Inventive step

The respondent-opponent submits that the numbers recited in the new claim 1 for the exit area openings are typical values for a filter material as disclosed in D2 or D5. Claim 1 would thus lack an inventive step starting from D2 or D5.

- 4.2.1 However, claim 1 of the first auxiliary request differs from D2 and D5 in further features.

D2 also lacks that the flexible porous filter at the bottom "lid" part 2 closes the circumferential wall. This provides an alternative structure of the capsule. There is no apparent reason that would motivate the skilled person to remove the outer rigid circumferential area of the bottom part 2 and extend the central porous filter to cover the whole bottom opening as a matter of obviousness. Even if they did so (which the Board holds would not be obvious), the resulting structure would also not fall under the scope of the new claim, since the bottom "lid" 2 would not have an *impermeable* outer circumferential area.

In respect of D5 as closest prior art, the board notes that, as explained in the Case Law of the Boards of Appeal, 9th edition 2019, I.D.3.6, the person skilled in the art, although being free in choosing a starting point, would of course be bound afterwards by that choice. Thus, if the skilled person chooses as starting point the flexible pad of D5, they would only ever work on improving (in an obvious manner) such a pad. In particular they would not, as a matter of obviousness, consider redesigning such a pad to be used as a capsule as presently claimed.

- 4.2.2 Also regarding D1 as closest prior art, the working principle of the capsule of D1 (embodiment of figures 18, 19) is that the precut slits 125 are openable members. They are deformed in a controlled manner. A positive pressure inside the capsule builds up before allowing beverage release once pressure is exerted in the vicinity of the slits 125 to deform and open them,

see paragraph [0138] of D1. It is thus necessary that the lid except for the precut slits is impermeable to be able to achieve these effects. The skilled person would thus not, as a matter of obviousness, modify the lid of D1 to make it porous as indeed it would be if it had the claimed number and size of perforations.

4.2.3 In the light of the above, the board concludes that the subject-matter of claim 1 according to the first auxiliary request involves an inventive step in the sense of Article 56 EPC.

4.3 For the above reasons the board holds that the claims as amended meet the requirements of the EPC. The board is satisfied that the consequential amendments to the description bringing it into line with the amended claims are unobjectionable, and these were also not objected to by the respondent-opponent. The board concludes that the patent can be maintained as amended pursuant to Article 101(3)(a) EPC.

5. With letter of 10 April 2019 the respondent-opponent withdrew their request for oral proceedings and also stated that they would not attend the scheduled oral proceedings.

By the board's previous communication, annexed to the summons for oral proceedings, the respondent-opponent was made aware of the central points underlying this decision, so that they have therefore had sufficient opportunity to take a position thereon. The board is thus satisfied that the requirements of Article 113(1) EPC have been met.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in the following version:

Claims:

Claims 1 - 15 of the First Auxiliary Request, filed on 23 December 2016;

Description:

Description for the First Auxiliary Request, pages 1 -10, filed on 23 December 2016, and

Drawings:

Figures 1 - 4 of the patent specification.

The Registrar:

The Chairman:



G. Magouliotis

G. Martin Gonzalez

Decision electronically authenticated