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# Datasheet for the decision of 3 March 2021

**Case Number:** T 2475/16 - 3.2.04

**Application Number:** 08709016.3

**Publication Number:** 2131704

**IPC:** A47J31/06, A47J31/40

**Language of the proceedings:** EN

**Title of invention:**
DEVICE FOR PREPARING A LIQUID BEVERAGE FROM A CARTRIDGE

**Patent Proprietor:**
Société des Produits Nestlé S.A.

**Opponents:**
Grey, Ian Michael
Patentwerk B.V.
Schramm, Michael / Schneider, Günther

**Headword:**

**Relevant legal provisions:**
EPC Art. 54, 56, 83
RPBA Art. 13(1)

**Keyword:**
Novelty - (yes)
Inventive step - (yes)
Sufficiency of disclosure - (yes)
Late-filed auxiliary requests - admitted (yes)

**Decisions cited:**

**Catchword:**
Reasons 3

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**

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**Case Number: T 2475/16 - 3.2.04**

# D E C I S I O N
# of Technical Board of Appeal 3.2.04
# of 3 March 2021

| | |
|---|---|
| **Appellant:** (Patent Proprietor) | Société des Produits Nestlé S.A.<br>Entre-deux-Villes<br>1800 Vevey (CH) |
| **Representative:** | Rupp, Christian<br>Mitscherlich PartmbB<br>Patent- und Rechtsanwälte<br>Sonnenstraße 33<br>80331 München (DE) |
| **Appellant:** (Opponent 1) | Grey, Ian Michael<br>Venner Shipley LLP<br>200 Aldersgate<br>London EC1A 4HD (GB) |
| **Representative:** | Grey, Ian Michael<br>Venner Shipley LLP<br>200 Aldersgate<br>London EC1A 4HD (GB) |
| **Party as of right:** (Opponent 2) | Patentwerk B.V.<br>Julianaplein 4<br>5211 BC 's-Hertogenbosch (NL) |
| **Representative:** | Patentwerk B.V.<br>P.O. Box 1514<br>5200 BN 's-Hertogenbosch (NL) |
| **Party as of right:** (Opponent 3) | Schramm, Michael / Schneider, Günther<br>Cuvilliesstr 14a<br>81679 München (DE) |
| **Representative:** | 2s-ip Schramm Schneider Bertagnoll<br>Patent- und Rechtsanwälte Part mbB<br>Postfach 86 02 67<br>81629 München (DE) |

**Decision under appeal:** **Interlocutory decision of the Opposition Division of the European Patent Office posted on 30 September 2016 concerning maintenance of the European Patent No. 2131704 in amended form.**

**Composition of the Board:**

**Chairman** A. de Vries
**Members:** C. Kujat
W. Van der Eijk
S. Oechsner de Coninck
T. Bokor

## Summary of Facts and Submissions

I. The appeal lies from the interlocutory decision of the opposition division of the European Patent Office, posted on 30 September 2016 concerning maintenance of the European Patent No. 2 131 704 in amended form pursuant to Articles 101(3)(a) and 106(2) EPC.

II. The opposition division held that the patent as amended according to Auxiliary Request 2b and the invention to which it related met the requirements of the EPC, having regard inter alia to the following pieces of evidence:

D1 US 2002/0144604 A1
D3 US 5,398,596 A
D4 US 2005/0084569 A1
D5 US 2006/0174769 A1
D6 EP 1 440 910 A1
D25 Capsule coffee machine "Krups KP2000 Dolce Gusto" as described in the "Evidence Inspection Report" annexed to the minutes of the oral proceedings before the opposition division on 2 May 2016

III. The appellant proprietor lodged an appeal, received on 21 October 2016, against this decision and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 9 February 2017.

IV. The appellant opponent 1 also lodged an appeal, received on 30 November 2016, against this decision and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 7 February 2017.

V. In preparation for oral proceedings the board issued a communication dated 18 October 2019 setting out its provisional opinion on the relevant issues.

Oral proceedings were duly held in the form of a video conference on 3 March 2021 in the presence of the proprietor and opponent 1 as appellants and opponent 3 as party as of right. The opponent 2 as party as of right informed the board with their letter of 23. February 2021 that they would not attend the oral proceedings.

VI. The proprietor as appellant requests that the decision under appeal be set aside and the patent be maintained in an amended form on the basis of Auxiliary Request 1, filed during oral proceedings before the board, alternatively that the patent be maintained in amended form according to one of further auxiliary requests 2, 2a-2d,3, 3a-3d, 4, 4a-4d, 5, 5a-5d, 6, 6a-6d, 7, 7a-7d, 8, 8a-8d, filed with the statement setting out the grounds of appeal, or auxiliary requests 1', 2', 2a'-2d', 2'', 2a''-2d'', filed with letter of 17 February 2020, where 1' is ranked after 1 and the other requests of 17 February 2020 are ranked after 2a-2d.

VII. The opponent 1 as appellant requests that the decision under appeal be set aside and the European patent No. 2131704 be revoked.

VIII. The opponent 3 as party as of right requested that all the requests of the patent proprietor be rejected.

IX. The opponent 2 did not make any submissions or file any requests.

X. The sole independent claim 1 according to Auxiliary Request 1 (filed during oral proceedings before the board and limited to the apparatus claims), which is identical with granted claim 1, reads as follows:

"Device for preparing a liquid beverage from a cartridge, comprising:
- a supply unit (2, 250, 280) for supplying injection fluid to the cartridge comprising an injection support (4) comprising injection means (5, 550, 580) for injecting injection fluid into the cartridge,
- a cartridge holder (6, 650, 680) configured to accept and support a cartridge; and which is designed to close against the supply unit,
the supply support (2, 250, 280) comprising an elastic sealing means (16, 160) to seal at least locally around an injection spike (13,510) and a raised engagement portion (15, 150) able to drive a wall (3, 301) of the cartridge toward the interior of the cartridge and thus reduce the internal volume of the cartridge,
characterized in that the engagement portion (15, 150) is convex and spaced away from the injection spike (13, 510)."

XI. The appellant proprietor argued as follows:

Auxiliary Request 1 should be admitted to the appeal proceedings. The subject-matter of claim 1 of Auxiliary Request 1 is sufficiently disclosed, novel and involves an inventive step.

XII. The opponents argued as follows:

Auxiliary Request 1 is late filed and not admissible, since a lack of novelty of the independent method claim over D25 was already apparent from the Board's

communication. The subject-matter of claim 1 of Auxiliary Request 1 is insufficiently disclosed. It moreover lacks novelty over the disclosure of each of documents D1, D3 to D6 or D25, and does not involve an inventive step starting from the teachings of each of D3, D6 or D25.

## Reasons for the Decision

1. The appeal is admissible.

2. *Background*

The invention concerns a device for preparing a liquid beverage from a cartridge, wherein an engagement portion is able to drive a wall of the cartridge towards the interior for reducing the internal volume of the cartridge. By forcing a reduction in the volume of the cartridge before injecting the fluid into the cartridge, enough volume in the cartridge is freed to compensate for the volume of gas-liquid mixture which expands in the cartridge after the injection means have been disengaged. Thereby, resurgence, i.e. the exiting of a jet of liquid out of the injection face of the cartridge, is reduced (paragraphs 0019, 0023 and 0057 of the patent).

3. *Admissibility of Auxiliary Request 1*

3.1 The (new) Auxiliary Request 1 was filed at the latest possible point in time, that is, not until during the oral proceedings before the board. The revised version of the Rules of Procedure of the Boards of Appeal (RPBA

2020) entered into force on 1. January 2020, Article 24(1) RPBA 2020, i.e. after notification of the summons to oral proceedings. Therefore, Article 13 of the Rules of Procedure of the Boards of Appeal in the version valid until the date of the entry into force of the revised version (RPBA 2007) continues to apply, Article 25(3) RPBA 2020.

3.2 The admissibility of the new Auxiliary Request 1 at that very late stage of the proceedings is thus subject to the discretion of the board under Article 13(3) RPBA 2007. According to that article amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the Board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings.

During the oral proceedings, the board confirmed its novelty objection against independent method claim 3 of (former) Auxiliary Request 1 over D25, which had been raised in the board's communication of 18 October 2019. In response the appellant proprietor filed the new auxiliary request 1, which, by deleting all method claims, was limited to the granted apparatus claims. The deletion of all method claims in Auxiliary Request 1 undoubtedly addresses not only that novelty objection but all other objections raised against the method claims (clarity, added subject-matter and inventive step) by rendering them moot. Only those objections that the other parties had to date validly raised against the granted apparatus claims remain. Because they are the same issues previously raised they do not give rise to any new issues. Moreover, the other parties, having raised these issues previously, and the Board, who had mentioned them in their summons,

could be expected to deal with with these issues without adjournment of the oral proceedings.

3.3 For these reasons, the board decided to admit Auxiliary Request 1 into the proceedings, Article 13(1) RPBA 2007.

4. *Novelty*

Novelty has been challenged with respect to D25, D1 and each of D3-D6.

4.1 D25 is the report of an inspection under Art 117(1)(f) EPC of a capsule coffee machine, Krups, Type KP 2000, for preparing a liquid beverage from a capsule type cartridge. It is uncontested that the machine comprises a supply unit for supplying water as injection fluid to the cartridge via an injection needle. The injection needle is mounted on a lever which is pivotally attached to a cartridge holder and surrounded by a gasket, see figures 8 and 9. The photo of figure 9 shows a capsule placed in the holder before insertion into a recess in the main machine body, see photos of figures 4 to 7. Further, it is undisputed that the coffee machine comprises a raised engagement portion able to drive an upper membrane of a capsule when inserted in the holder into the machine toward the interior of the capsule and thus reduce its internal volume, and that the engagement portion is convex and spaced away from the injection spike, see "bulging part (2)" in the photo of figure 6 of D25. Furthermore, the parties agree that the terms "supply unit" and "supply support" in claim 1 are synonymous, and thus, the board will refer to both as supply unit.

4.2 The only point of contention in respect of novelty over D25 is whether in that device *the supply unit comprises injection means for injecting injection fluid into the cartridge* and *an elastic sealing means to seal at least locally around an injection spike* as required by claim 1. The board must therefore assess which element in D25 acts as injection means, and whether it is comprised by the supply unit.

4.2.1 In a first line of argument the (appellant) opponents focus on the upper support plate shown in figures 4-6 and consider the outlet of the water conduit therein as injection means. In this respect, the board notes that it is undisputed that both elements belong to the supply unit. Further, it is common ground that the upper support plate may be considered an "elastic sealing means" as it is made of a rubber-like material with corresponding elastic properties, see item 1.2.2. of D25. However, contrary to the opponents' assertion, this water conduit alone is not sufficient for injecting water into the capsule.

As noted above an injection needle is pivotally attached to the cartridge holder. As was confirmed by the parties at the oral proceedings before the board this injection needle is pressed or pivoted downward by the user into a capsule placed in the holder so as to puncture the upper membrane *before* insertion of the holder and capsule into the machine. Subsequently the cartridge holder with the capsule already punctured and the needle pivoted in place is inserted into the machine, after which beverage preparation involving injection of water into the capsule starts.

While the water conduit admittedly will supply water to the capsule once inserted and with the injection needle in place, actual injection of fluid only takes place by means of that injection needle.

4.2.2 Nor can the injection needle and its gasket on the pivotable lever of the cartridge holder be seen as comprised by the supply unit as also argued by the (appellant) opponents.

The board shares the opponents' view that claim 1 is not restricted to a supply unit consisting of a single part, and therefore also covers a modular supply unit comprising several parts, one of which may be the injection means. However, the placement of any of these parts on the cartridge holder disqualifies them as parts of the supply unit. The skilled person namely, reading the claims with a mind willing to understand, giving terms their normal meaning and reading them contextually, reads the feature of "cartridge holder ... designed to close against the supply unit" in claim 1 as distinguishing between the cartridge holder and the supply unit as two different and distinct entities, as implied by the feature "designed to close **against**". An element on the cartridge holder is therefore not part of or comprised by the supply unit, and thus, the injection needle on the lever of the cartridge holder of D25 is neither part of the supply unit nor of the injection means (which itself is an integral part of that supply unit).

4.2.3 In summary, the board is satisfied that the supply unit for supplying injection fluid to the cartridge of the device of D25 does not comprise injection means formed as an injection spike as required by claim 1.

4.3 Concerning D1, it is common ground that the document discloses a coffee machine for preparing a liquid beverage from filter cartridge 46, which is pierced by hub 80, see figures 5 to 7 and corresponding paragraphs 0022 to 0024. It is also undisputed that hub 80 is surrounded by sealing gasket 90, which has a square cross-section and simultaneously acts as elastic sealing means and engagement portion. Thus the question of novelty vis-à-vis D1 hinges on whether, as argued by the appellant, sealing gasket 90 may be considered a convex engagement portion.

The board disagrees. Within a general context, the normal meaning of "convex" is *curved or rounded outward like the exterior of a sphere or circle* (see Merriam-Webster). This definition excludes shapes having straight lines such as a square. For that reason alone, whether or not D1 discloses all the remaining features of claim 1, D1 cannot take away the novelty of claim 1.

4.4 With regard to documents D3 to D6, the board was of the preliminary opinion that none of these documents discloses such a device for preparing a liquid beverage. In its communication, the board presented the following preliminary view (see paragraph 4.1.3 of the communication):

*"4.1.3 ...*
***D3*** *does not seem to disclose a convex, but rather a concave engagement portion (column 4, lines 28 and 29). In that respect, the board fails to identify an "outer, annular convex part of first surface 25a" in figure 4 of D3 (reply of opponent 1, item 16.5).*

***D4*** *does not seem to disclose an elastic sealing means to seal at least locally around the injection spike 132, nor that the supply support 134 comprises a raised engagement portion.*

***D5*** *does not seem to disclose an injection spike, since spikes 25 only perforate the injection surface of the cartridge, while injection is effected via channel 23 (paragraph 30).*

***D6*** *does not disclose a convex engagement portion, since ledge 254a is provided for tensioning the cartridge laminate such that it flexes out of plane and folds up into the annulus surrounding the discharge spout (paragraphs 111 and 121). The shape of ledge 254a does not seem to be defined in paragraph 109 or in figure 41. Further, D6 does not seem to disclose an elastic sealing means to seal at least locally around an injection spike, since the nature of the element shown in figure 41 around tube 260 is not defined."*

During the oral proceedings before the board, the appellant opponent 1 and the respondent opponent 3, as well as the respondent opponent 2 in their letter of 23. February 2021, did not comment on the board's preliminary view. In the absence of such comments, the board sees no reason to review it.

4.5 Hence, the board considers the subject-matter of claim 1 to be novel over each of D1, D3 to D6 or D25, Article 54 EPC.

5. *Inventive Step*

Lack of inventive step was argued starting from D3, D6 or D25. The board is not convinced by any of these lines of attack for the following reasons.

5.1 Following on from the above discussion of novelty, the subject matter of claim 1 differs from D25 in that the supply unit for supplying injection fluid to the cartridge comprises injection means (formed as an injection spike). In D25, the injection needle and its gasket are located on the cartridge holder, see the pivotable lever with these elements in figures 8 and 9.

5.2 Leaving aside the question what effect placement of the needle on the supply unit might have and how the objective technical problem might then be formulated, the board finds that the design of the machine of D25 is such that such a modification would not be simple or straightforward.

5.2.1 As explained above a capsule is first placed in the holder and its membrane then punctured by pivoting the needle downward. The user then slides the cartridge holder with the punctured cartridge into a recess within the body of the coffee machine as shown in the photos of figures 4 to 8 of D25. In a final step, they turn a selection lever (visible at the top of the photo in figure 5) to either hot or cold in order to start the water injection into the cartridge. The recess of the machine is thus designed to allow insertion of the holder and capsule with the needle *already lowered and puncturing the capsule membran*e. Once placed in the recess the needle aligns with the liquid supply and water injection starts.

5.2.2 If the injection needle of D25 were to be placed on the body of the coffee machine in its operational position connected to and in alignment with the liquid supply, it would project into the space into which holder and capsule is normally inserted, thus impeding their insertion. Moreover, the design of the D25 machine is predicated on the user puncturing the capsule themself by pushing the pivoting needle downwards *before* insertion of holder and capsule into the machine. This means that if the needle is placed in the recess of the machine body connected to and in alignment with the liquid supply, which in the existing device is stationary, a further modification of the machine and its operation will be necessary to ensure that the capsule is punctured *after* insertion of the holder. The skilled person would therefore need to adapt the machine of D25 to find a mounting arrangement of the injection needle in the coffee machine which allows both insertion of the cartridge and subsequent puncturing of the membrane.

In the board's view such a further modification is neither simple nor straightforward and in any case goes well beyond the average, routine skills of the skilled person. It is conceivable that they might consider amongst various possibilities a movable mounting of the injection needle in the machine body. That is they might conceive of a mechanism that somehow moves the injection needle vertically downwards towards and through the membrane after insertion of the cartridge holder into the machine body and back again once preparation is completed. In the board's view, such a mechanism would however interfere with the mechanism for the selection of hot and cold water which in the photo of figure 9 is shown above the recess. In order

to accommodate a mechanism for moving the injection needle vertically downwards in that tight space, the machine of D25 would consequently need to be substantially redesigned, leaving it completely open whether or not the bulging sealing/raised engagement portion as described in point 4.1 could still be kept in that redesigned coffee machine.

5.2.3 Therefore, even if it were to be assumed that the skilled person, because of their knowledge of cartridge beverage machines, might have considered locating the injection needle or spike on the body of a coffee machine (as argued by the (appellant) opponents), the board believes that - if the problems encountered did not already deter them from trying - then the necessary further modifications would be beyond their normal skills.

5.3 In their written submissions, the (appellant) opponents also argued that the subject-matter of claim 1 of the main request does not involve an inventive step starting from each of D3 or D6 in combination with D2 or D4. In its communication, the board was of the preliminary opinion that these lines of attack are not convincing. The board presented the following preliminary view (see paragraph 4.1.4 of the communication):

*"4.1.4 Lack of inventive step was argued starting from D3, D6 or D25. None of these lines of attack appear convincing to the board:*

*Starting from D3, the objective technical problem underlying the feature convex engagement portion may be regarded as (assisting in) reducing the resurgence of liquid or gas-liquid mixtures (patent, paragraphs*

*19-26). For a solution to that problem, a skilled person does not seem to consider D4, since the injection takes place through the bottom of the capsule (see injector 132 in figure 13). It seems to be immaterial whether bulged member 114 constitutes a convex engagement portion, because it is located in cartridge holder 110. Alternatively, the skilled person does not seem to consider D2, since convex reading window 40 is provided for improving the detection of a code on the face of the cartridge (paragraph 33).*

*Starting from D6, the board is not convinced that ledge 254a acts as an engagement portion able to reduce the internal volume of the cartridge. The relevant internal volume seems to be that of annular filtration chamber 130 (figure 11). Even if ledge 254a causes the distal end of the outer tube 42 of the cylindrical funnel to move upwardly by 0.5 mm, that movement does not seem to reduce the internal volume of chamber 130, but rather ensures that the great majority of the compressive force applied to the cartridge acts through the central region of the cartridge through the load-bearing inner member 3 (figure 7, paragraph 111). The objective technical problem underlying the feature "convex engagement portion" may be regarded as reducing the resurgence of liquid or gas-liquid mixtures. It seems that none of the opponents has submitted corresponding arguments."*

As the opponents refrained from further comment, the board confirms its provisional view and thus finds that the subject-matter of claim 1 of Auxiliary Request 1 is not rendered obvious by these documents.

5.4 From the above it follows that a skilled person will not arrive at the subject-matter of claim 1 in an obvious manner. Therefore, the subject-matter of claim 1 of Auxiliary Request involves an inventive step, Article 56 EPC.

6. *Disclosure of the invention*

The (appellant) opponents dispute the decision's finding that the patent discloses the invention in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 100(b) EPC). In its communication, the board was of the preliminary opinion that this objection is not convincing. The board presented the following preliminary view (see paragraph 5 of the communication):

*"5. Sufficiency*
*The patent in suit seems to disclose the invention defined in the independent claims in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. The objections raised by the appellant-opponent 1 rather seem to relate to clarity of the claims, which is not a ground for opposition according to Article 100 EPC. Potential unclarities ("essential features have been omitted") seem to be overcome by the detailed description, see e.g. paragraph 24. The board does not share the view that method claim 3 would not require that the reduction in the empty internal volume of the cartridge takes place before injection. To the contrary, "empty volume" seems to imply that no liquid has been injected."*

As the opponents refrained from further comment, the board confirms its provisional view and thus finds that the patent discloses the invention defined in claim 1 of Auxiliary Request 1 in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, Article 83 EPC.

7. In conclusion, the board holds that the patent discloses the invention defined in claim 1 of Auxiliary Request 1 in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, Article 83 EPC. Furthermore, the subject matter of claim 1 of Auxiliary Request 1 is novel and involves an inventive step, Articles 54 and 56 EPC. Therefore, the patent can be maintained in an amended form on the basis of Auxiliary Request 1 pursuant to Article 101(3)(a) EPC, provided that the description is adapted to the amended claims.

**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 on the basis of claims 1-3 of auxiliary request 1, as filed during oral proceedings before the Board, and a description to be adapted.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated