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**Datasheet for the decision
of 23 October 2019**

Case Number: T 1145/16 - 3.2.04

Application Number: 09804027.2

Publication Number: 2384134

IPC: A47J31/36, A47J31/06

Language of the proceedings: EN

Title of invention:

PROCESS OF BREWING TEA LEAVES CONTAINED IN A CAPSULE

Patent Proprietor:

Société des Produits Nestlé S.A.

Opponent:

Krüger GmbH & Co. KG

Headword:

Relevant legal provisions:

EPC Art. 54(2), 56

Keyword:

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

Decisions cited:

Catchword:



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Case Number: T 1145/16 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 23 October 2019

Appellant: Société des Produits Nestlé S.A.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 4 March 2016
revoking European patent No. 2384134 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman A. de Vries
Members: G. Martin Gonzalez
C. Heath

Summary of Facts and Submissions

I. The proprietor appeals the decision of the Opposition Division posted on 4 March 2016 to revoke European patent No. 2 384 134 pursuant to Article 101(3)(b) EPC.

II. Opposition was filed under Article 100(a) EPC based on lack of novelty and lack of inventive step, under Article 100(b) EPC based on insufficiency of disclosure and under Article 100(c) based on unallowable extension of subject-matter.

The opposition division revoked the patent having regard inter alia to the following evidence:

(E1) EP 1 774 878 B1

(D3) EP 1 440 640 A2

III. The appellant-proprietor requests that the decision under appeal be set aside and that the patent be maintained as granted, in the auxiliary that the patent be maintained in the form of one of auxiliary requests 1 - 4 filed with the statement of the grounds of appeal.

The respondent-opponent requests that the appeal be dismissed.

IV. Oral proceedings were duly held on 23 October 2019.

V. The independent claim 1 according to the requests relevant to this decision reads as follows:

(a) Main request - claim 1 as granted

"Process for the preparation of a beverage in a beverage machine with a capsule comprising an enclosure containing tea leaves comprising the steps of

a) introducing hot water delivered from pumping and heating means in the capsule to submerge the tea leaves in the capsule enclosure, then

c) introducing hot water in the capsule until the required volume of beverage is delivered, characterised in that:

- the process comprises a step b) for letting the tea leaves soak,

and in that water is continuously delivered from the pumping and heating means from the beginning of step a) until the end of step c) and:

- either continuously introduced in the capsule from the beginning of step a) until the end of step c), or
- at least partially sent to waste during step b)."

(b) First auxiliary request:

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

"..., wherein during step b) the water is delivered from the pumping and heating means at a soaking flow comprised between 20 and 80 ml/min."

(c) Second auxiliary request:

Claim 1 reads as in the first auxiliary request with the following amendment in step a) of the claim process (emphasis added by the board to indicate modified text):

"...a) introducing hot water delivered from pumping and heating means in the capsule to submerge the tea leaves in the capsule enclosure, water being introduced at a flow of at least 150 ml/min., then..."

(d) Third auxiliary request

Claim 1 as in the main request, amended to limit the process to the second alternative. Granted claim 1 has been thus amended as follows (emphasis added by the board to indicate modified text):

"..., characterised in that:

- the process comprises a step b) for letting the tea leaves soak,

and

- in that water is continuously delivered from the pumping and heating means from the beginning of step a) until the end of step c) and:

~~- either continuously introduced in the capsule from the beginning of step a) until the end of step c), or~~
~~- at least partially sent to waste during step b).~~"

VI. The appellant-proprietor argued as follows:

The subject-matter of claim 1 of the main request and auxiliary requests 1-3 is new and involves an inventive step in the light of the cited prior art.

VII. The respondent-opponent argued as follows:

The subject-matter of claim 1 of the main request is not new with regard to E1. The subject-matter of the independent claims according to the first and second auxiliary request lacks an inventive step having regard to E1 and the common general knowledge of the skilled person. No objections are raised against auxiliary request 3.

Reasons for the Decision

1. The appeal is admissible.
2. The invention is concerned with brewing tea leaves contained in a capsule. According to the patent specification it is important to precisely control the temperature of the water during extraction of the leaves. Due to the pause step that is usually implemented in the brewing cycle for tea leaves, the fluid temperature can drop which leads to a non optimal brewing, see paragraph [0005]. The invention is aimed at maintaining the optimal temperature of brewing during all of the extraction process, see specification paragraphs [0006]-[0007].
3. Main request
 - 3.1 The appellant-proprietor contests the division's finding that the method of claim 1 according to the first option: "water is continuously introduced in the capsule from the beginning of step a) until the end of step c)", is anticipated by E1, see decision page 5. The appellant-proprietor is in particular of the

opinion that E1 does not anticipate a soaking step b) in the sense of the contested claim.

- 3.2 As noted by the board in its written communication, the contested claim 1 - first option - calls for three steps a), b) and c), step b) being a soaking step.

In the board's understanding, the term "soak" in its usual meaning implies leaving the tea leaves to stand in a liquid for some time, as also put forward by the appellant-opponent. In this regard soaking does not exclude that water is slowly added, as long as the water in which the tea leaves stand is not removed. Indeed, option 1 of the claim requires that liquid is continuously introduced also during soaking step b).

This raises the question how the skilled person reading the claim (option 1) as a whole and with the aim of making technical sense, would understand the requirement of three steps and the technical differences between each other. Must these steps be clearly differentiated, i.e. as distinct and separate steps? Insofar as the soaking step with continuous water introduction is concerned, does this necessarily imply a different (slower) flow rate, as put forward by the appellant-proprietor?

In the board's understanding, even if soaking implies slow water flow this does not mean it is necessarily different from the flow in steps a) and c). Nor do these steps appear to have to be strictly separate; rather, they may also constitute a natural sequence of stages that transition gradually from one to the other: initial part filling - intermediate slow filling - overflow filling.

3.3 Turning to the disclosure in E1, as also noted in the written communication of the board, E1 describes a process for brewing tea from a capsule, see paragraph [0001], using a continuous supply of hot water at a "slow" flow rate for high quality infusion, see e.g. paragraphs [0034], [0041] of E1. The flow rate during the entire process is slow, but constant, appropriate for water introduction and for beverage delivery, cf. paragraph [0055]. Steps a) and c) - initial part filling of the capsule and final overflow filling - are clearly disclosed, as is an intermediate filling stage between the two, i.e. after initial filling but before overflow.

The board considers that this intermediate stage filling is at a rate slow enough to allow for soaking. Put otherwise, introducing water at a steady, slow rate but still within the acceptable range for beverage delivery in a reasonable amount of time, as disclosed by E1, is a direct and unambiguous anticipation of a soaking step in the sense of the contested claim, as also held by the opposition division, see written decision page 5.

3.4 The board is not convinced by the appellant-proprietor's argument that, since E1 teaches to maintain a sufficient flow rate for dispensing, that flow rate must be too high to allow for soaking and is thus not a direct and unambiguous anticipation of a soaking flow rate. In the board's view, on the contrary, E1 consistently discloses a slow water flow rate as a central feature of the process described to increase the infusion quality, cf. e.g. paragraph [0034]: "the flow can be controlled slower through the capsule for a better infusion quality"; paragraph [0041]: "...while keeping all the benefits of the

invention, i.e., slow flow for high quality infusion,..."; or paragraph [0055]: "Hot water slowly fills the capsule and submerges the beverage ingredients in the enclosure". Against this background, the skilled person readily understands that the flow rate sufficient for an acceptable dispensing time taught by E1 is always within the limits of flow rate that is slow enough to ensure a high quality extraction, which is possible only if the tea leaves stand in liquid for some time long enough that they are soaked. Thus the flow is a soaking flow in the sense of the contested patent.

3.5 The board thus concludes that the subject-matter claimed by the first alternative of claim 1, is not new over E1.

4. First auxiliary request - Inventive step

4.1 Independent claim 1, first alternative, of this request specifies the flow rate during step b) to be comprised between 20 and 80 ml/min.

4.2 The appellant-proprietor submits that D3 should be considered the closest prior art for the assessment of inventive step as D3 would be the only document describing a process comprising a soaking step, and thus has more features in common with claim 1.

The question whether or not a document is the "closest" prior art, that is whether it represents a better starting point than another is not relevant. Decisive is whether starting from a given document it can be convincingly argued that the claimed invention lacks inventive step. In any case, E1 not only also discloses soaking but also continuous delivery of water through

the capsule during all steps, which is not described in D3. In addition, as is immediately apparent from comparison of the figures 1 and 2 of E1 and figures 3 and 4 of the patent, the capsule and machine of E1 and the patent are very similar; indeed E1 and the patent share the same proprietor. Consequently, E1 is at least as relevant if not more so than D3 and thus constitutes a good starting point for the assessment of inventive step.

- 4.3 The subject-matter of claim 1 of the first auxiliary request only differs from E1 in the added feature that the soaking flow rate during step b) is comprised between 20 and 80 ml/min. E1 is silent on the exact value of the slow flow rate mentioned there.
- 4.4 The known process of E1 already discloses that hot water is continuously delivered into the capsule during all steps, including the soaking step. Thus the effect of the claimed invention submitted by the appellant-proprietor, namely the compensation of heat losses of the capsule by adding hot water (cf. patent specification paragraphs [0011] and [0014]), is already achieved by E1. The objective technical problem is thus to be reformulated in view of the technical effect over and above E1 that is actually achieved by the differentiating features.

The board regards the selection of particular flow rate values as an optimization of the known process to achieve appropriate tea extraction quality for a particular realization of the process, i.e. a particular machine, capsule size and/or tea variety. The associated technical problem can thus be formulated as how to optimize the known process of E1 for a particular use.

- 4.5 Document E1 does not specify any value for the flow rate. It however requires the flow rate to be sufficiently slow for high quality infusion, cf. E1, paragraph 41. Thus the skilled person, when carrying out the teaching of E1, receives a clear indication that the flow rate should be adapted to be adequately slow for each particular use. They would consequently and as a matter of obviousness take the necessary steps to find the optimal value for the chosen circumstances, e.g. the particular machine, the chosen tea variety and consistency, the size of the capsule, and so arrive at flow rate values within the claimed range. The board is otherwise unable to identify anything special about the claimed values, which are therefore seen to be the obvious result of routine optimization e.g. by trial and error by the skilled person, an engineer involved in the design of beverage machines with also the relevant knowledge of tea infusion properties.
- 4.6 In view of the above the board holds that the subject-matter claimed by the first alternative of claim 1 lacks an inventive step in the sense of Article 56 EPC.
5. Second auxiliary request - Inventive step
- 5.1 Claim 1 of the second auxiliary request further specifies, in addition to a flow rate between 20 and 80 ml/min during step b), that during step a) water is introduced at a faster flow of at least 150 ml/min.
- 5.2 Over and above the optimization associated with the claimed flow rate for step b), a faster flow rate during the filling step a) enables the rapid filling of the capsule to manage optimal beverage preparation time length, cf. patent specification paragraph [0010]. The

associated technical problem is thus how to minimize preparation time of such an optimized product.

- 5.3 From their basic understanding of tea brewing process, it will be immediately evident to the skilled person that how fast the water is initially poured or, equivalently for a capsule machine process, how fast the capsule is initially filled is not crucial for the infusion quality achieved by the extraction during the subsequent soaking step. What is critical for the infusion quality is the soaking (or brewing) flow rate in step b). In order to speed up the overall preparation time the skilled person would thus, drawing on common general knowledge as a matter of obviousness carry out initial filling at a higher speed. The particular lower limit of 150 ml/min does not appear of any particular significance, other than that it is dictated by the particular circumstances, such as desired overall preparation time.
- 5.4 The appellant-proprietor submits that none of the cited prior art documents suggests the use of two different flow rates in the same beverage preparation process and that therefore the use of two different flow rates confers inventive step to claim 1. The board however considers that the idea of two different flow rates during beverage preparation belongs to general tea making practice.
- 5.5 The board thus also concludes that the subject-matter claimed by the first alternative of claim 1 according to the second auxiliary request does not involve an inventive step.

6. Third auxiliary request

6.1 The subject-matter of claim 1 of this request has been limited to the second option of granted claim 1, namely that water is continuously delivered from the pumping and heating means from the beginning of step a) until the end of step c), wherein water is at least partially sent to waste during step b).

6.2 The respondent-opponent no longer maintains its sole objection of lack of inventive step against this alternative subject-matter already present in granted claim 1. The Board also has no reason to pursue this objection of its own accord.

Partial delivery of hot water to waste is neither disclosed nor suggested by the cited prior art documents. It avoids a too important change of the temperature of the delivered water when water is introduced again, cf. specification paragraph [0013].

6.3 The board is also 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 appellant-opponent.

6.4 The board concludes that taking into consideration the amendments made the patent and the invention to which it relates meet the requirements of the EPC and can therefore be maintained as amended, according to the third auxiliary request, pursuant to Article 101(3) (a) EPC.

Order

For these reasons it is decided that:

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

Claims:

Nr. 1 - 9 of the Auxiliary Request 3 filed with the statement of grounds of appeal.

Description:

Pages 2 - 6 as filed during oral proceedings before the Board.

Drawings:

Figures 1 - 4 of the patent specification.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated