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**Datasheet for the decision
of 27 February 2025**

Case Number: T 1691/22 - 3.2.01

Application Number: 15901499.2

Publication Number: 3337341

IPC: A24F47/00

Language of the proceedings: EN

Title of invention:

ELECTRONIC SMOKING DEVICE WITH CAPILLARY BUFFER

Patent Proprietor:

Fontem Ventures B.V.

Opponent:

Nicoventures Trading Limited

Headword:

Relevant legal provisions:

EPC Art. 54, 123(2)

RPBA 2020 Art. 12(2), 12(4), 12(6), 13(2)

EPC 1973 Art. 56

Keyword:

Main request - Novelty - (no)

Auxiliary request 1 - not admitted in first instance - error in use of discretion at first instance (no)

Auxiliary request 2 and 3 - Amendment to case - requirements of Art. 12(2), (4), (6) RPBA 2020 met (no)

Auxiliary request 4 - Amendments - added subject-matter (no)

Late-filed facts - should have been submitted in first-instance proceedings (yes)

Auxiliary request 4 - Novelty - (yes)

Auxiliary request 4 - Inventive step (yes)

Decisions cited:

T 2219/18

Catchword:



Beschwerdekammern

Boards of Appeal

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Case Number: T 1691/22 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 27 February 2025

Appellant: Fontem Ventures B.V.
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
18 May 2022 concerning maintenance of the
European Patent No. 3337341 in amended form.**

Composition of the Board:

Chairman V. Vinci
Members: S. Mangin
O. Loizou

Summary of Facts and Submissions

- I. The appeals were filed by the appellant 1 (patent proprietor) and appellant 2 (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 4, the patent in suit (hereinafter "the patent") met the requirements of the EPC.
- II. The opposition division held that:
- claims 8-13 of auxiliary request 4 satisfied the requirements of Article 123(2) EPC;
 - the invention was disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art;
 - the subject-matter of claim 1 was novel over D2 (WO 2016/092261 A1) and D5 (US2011/0226236 A1);
 - the subject-matter of claim 1 involved an inventive step starting from D5.
- III. Oral proceedings were held before the Board on 27 February 2025 via video conference.

The appellant 1 (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained in amended form on the basis of the main request, or alternatively on the basis of one of the auxiliary requests 1 to 3 filed with the statement of grounds of appeal, or of auxiliary request 4 (i.e. the appeal of the opponent be dismissed), or on the basis of one of the auxiliary requests 5 to 34 filed with their reply or one of the auxiliary requests 34-1 to 34-21 filed with letter of 22 August 2023, whereby with letter 27 October 2023 the appellant 1 (patent proprietor) corrected the auxiliary requests AR34-11

(based on AR11) and AR34-12 (based on AR12) by replacing them with AR34-8 (based on AR11) and AR34-9 (based on AR12) respectively.

During oral proceedings, the appellant 1 (patent proprietor) specified that auxiliary request 4 was to be considered with the amended description "Alternative 2 - Amended paragraph [0032]" filed with the reply dated 1 February 2023.

The appellant 2 (opponent) requested that the decision under appeal be set aside and the patent be revoked.

IV. Independent claim 1 of the main request corresponds to granted claim 1 with the additional feature of granted claim 3 (feature c), and reads as follows:

1. An electronic vaporizing device (11) having a housing and an atomizer (26) in the housing a capillary buffer (101) in the housing, the capillary buffer (101) having a first end (33), a second end (35), a capillary buffer portion between the first end (33) and a second end (35), and a vapor channel (32); and a liquid supply (34), with the capillary buffer (101) in between the liquid supply (34) and the atomizer (26), and the vapor channel (32) leading to the atomizer (26), characterized in that
 - (a) the capillary buffer portion comprises a liquid conduit (112) which is formed:
 - (a1) between the first end (33) and the second end (35), and
 - (a2) through the capillary buffer portion;

(b) the liquid supply (34) is connecting into the liquid conduit (112), and
(c) the capillary buffer portion is adapted to hold excess liquid from the liquid supply (34) in buffer spaces (1120).

V. Independent claim 1 of auxiliary request 1 corresponds to claim 1 as granted with the features of granted claim 3, which reads:

"the electronic vaporizing device further includes a recess at the first end (33) of the capillary buffer portion for accommodating a liquid guiding structure".

VI. Independent claim 1 of auxiliary request 2 corresponds to granted claim 1 with the additional features of granted claims 3 and 6 (combination of the main request and auxiliary request 1).

(c) the capillary buffer portion is adapted to hold excess liquid from the liquid supply (34) in buffer spaces (1120), and

(d) the device (11) further includes a recess at the first end (35) of the capillary buffer portion for accommodating a liquid guiding structure.

VII. Independent claim 1 of auxiliary request 3 corresponds to claim 1 of auxiliary request 2 with the introduction of the liquid guiding structure (feature d):

(d) the device (11) further includes a liquid guiding structure, and a recess at the first end (35) of the capillary buffer portion accommodating the liquid guiding structure.

VIII. Independent claim 1 of auxiliary request 4 corresponds to claim 1 as granted with the additional feature of

granted claim 3 as granted (feature e)

(e) "wherein the capillary buffer portion comprises a plurality of buffer spaces (1120) formed between a plurality of buffer plates (1110), an air channel (115) connecting into all of the buffer spaces (1120), and a capillary slit (113) traverse to the buffer spaces (1120)".

IX. The decision further refers to D3 (WO 2015/117704 A1).

Reasons for the Decision

1. Main request - Novelty over D3

The subject-matter of claim 1 is not novel over D3.

1.1 The appellant 1 (patent proprietor) argued that D3 did not disclose the characterising portion of claim 1
"(a) the capillary buffer portion comprises a liquid conduit (112) which is formed:

(a1) between the first end (33) and the second end (35), and

(a2) through the capillary buffer portion;

(b) the liquid supply (34) is connecting into the liquid conduit (112), and

(c) the capillary buffer portion is adapted to hold excess liquid from the liquid supply (34) in buffer spaces (1120)".

In their view, the fiber structure of the capillary disc 44 in figure 18 of D3 could not be seen as a liquid conduit and disc 44 was the wick of the heater and thus part of the atomizer.

Furthermore, the appellant 1 (patent proprietor) interpreted "excess liquid" as "an amount of liquid having left the liquid supply in addition to a necessary, permitted or desired amount of liquid supplied from the liquid supply to the atomizer for atomization" and as being liquid that was not provided for atomization.

The liquid provided to the atomizer to avoid dry heating of the atomizer in D3 was the liquid which was atomized otherwise dry heating could not be prevented. Thus, this amount of liquid was not excess liquid but liquid provided for atomization.

In addition, the liquid provided for different puffs was still liquid provided for atomization, albeit in different puffs. Buffer spaces which held excess liquid to avoid leakage were not disclosed in D3.

The appellant 1 (patent proprietor) referred to the passages on page 8, line 16 - page 9, line 2 and page 27, line 31 - page 28, line 2 of D3 and emphasised that the capillary disc 44 could not hold a variable amount of liquid.

- 1.2 The Board disagrees with the arguments of the appellant 1 (patent proprietor). A liquid conduit is formed between the fibers from the first end to the second end of the capillary disc 44 in figure 18 of D3. This capillary disc 44 is arranged between HRM 41, serving as a liquid reservoir, and heater 30 (see lines 33-35 on page 27 of D3) and can thus be considered as being part of the capillary buffer.

Furthermore, the capillary disc 44 is a temperature resistant fiber disc adapted to hold excess liquid from

the liquid supply in buffer spaces. Indeed, the capillary disc 44 not only forms a liquid conduit, but also provides spaces, where excess liquid may be retained.

The capillary disc 44 will deliver the necessary amount of liquid for atomization (being for one or several puffs) and will hold the excess of liquid coming from the liquid supply.

The capillary disc will thus hold an amount of liquid having left the liquid supply in addition to a necessary or desired amount of liquid supplied from the liquid supply to the atomizer for atomization. Similarly to the patent, the liquid in excess will eventually be used for atomization.

2. Auxiliary request 1 - Admissibility - Article 12(6)
RPBA

Independent claim 1 of auxiliary request 1 corresponds to claim 1 as granted with the features of granted claim 3, which reads:

"the electronic vaporizing device further includes a recess at the first end (33) of the capillary buffer portion for accommodating a liquid guiding structure".

Auxiliary request 1 corresponds to auxiliary request 2 filed during the oral proceedings in opposition. The opposition division did not admit auxiliary request 2 submitted during oral proceeding as it was found not to be prima facie allowable and could have been filed within the time-limit according to Rule 116(2) EPC. In particular, in their view, dependent claims 2 to 13 according to auxiliary request 2 introduced numerous fresh combinations of features which could not be seen prima facie clearly and unambiguously derivable from

the application as filed and meeting the requirements of Article 123(2) EPC.

The Board did not admit auxiliary request 1 which was not admitted in opposition proceedings pursuant Article 12(6) RPBA first sentence.

2.1 The appellant 1 (patent proprietor) argued that auxiliary request 2 was filed during oral proceedings in opposition as a direct response to the objections of added subject-matter made for the first time regarding auxiliary request 1 in opposition. Furthermore, independent claim 1 was a combination of claim 1 and dependent claim 3 as granted.

The prima facie added subject-matter issue of dependent claims 2-13 was already valid for auxiliary request 1 in opposition. Therefore, the opposition division and the opponent had enough time to consider the added subject matter for the dependent claims. However, this objection was not addressed or discussed when dealing with auxiliary request 1. Therefore, during oral proceedings, the patent proprietor was not given any opportunity to address this objection in newly filed auxiliary request 2. Since auxiliary request 2 was not admitted into the proceedings, no specific objection with respect to which of the dependent claims would not be combinable with the subject-matter of granted claim 3 was raised. For this reason, they were not in the position to address such objection in filing another request.

2.2 The Board is of the opinion that the decision of the opposition division not to admit auxiliary request 2 does not suffer from an error in the use of discretion.

In the present case, the opposition division used the right criteria, in particular prima facie allowability, in a reasonable manner for not admitting auxiliary request 2 in opposition (present auxiliary request 1). The opposition division also noted that the appellant 1 (patent proprietor) should have anticipated the added subject-matter objection against claim 1 of auxiliary request 1 in opposition and filed before the oral proceedings an auxiliary request to overcome the objection. The opposition division correctly noted that waiting until the oral proceedings to file a new request under these circumstances was too late.

3. Auxiliary request 2 - Admissibility - Article 12(2), (4) and (6) RPBA

Independent claim 1 of auxiliary request 2 corresponds to granted claim 1 with the additional features of granted claims 3 and 6 (combination of the main request and auxiliary request 1):

(c) the capillary buffer portion is adapted to hold excess liquid from the liquid supply (34) in buffer spaces (1120), and

(d) the device (11) further includes a recess at the first end (35) of the capillary buffer portion for accommodating a liquid guiding structure.

The Board did not admit auxiliary request 2 filed for the first time in appeal into the appeal proceedings. The request is similar to auxiliary request 2 previously filed in response to the summons on 25 February 2022 without the amendments to feature (d) corresponding to granted claim 3.

3.1 The appellant 1 (patent proprietor) filed auxiliary request 2 in appeal in reaction to the objection of lack of convergence of auxiliary request 1 with respect to the main request raised by the opponent. According to the appellant 1 (patent proprietor), the request overcame the objection since convergence was now given by incorporating the subject-matter of claims 3 and 6 into claim 1 as granted.

According to the appellant 1 (patent proprietor) since the corresponding request including the incorporation of granted claim 3 into claim 1 was not allowed into the proceedings by the opposition division, there was no reason for introducing claim 3 and in addition claim 6 into claim 1 during oral proceedings since this request would have been rejected for the same reasons.

3.2 The Board notes that the basis for the amendments made, in particular for the dependent claims has not been indicated. Indeed, the dependent claims were not directly dependent on claims 3 and 6 that have been introduced into claim 1 and thus require a basis for the combination of features. Furthermore, it appears that auxiliary request 2 could and should have been submitted in opposition proceedings. As indicated by the appellant 2 (opponent), the patent proprietor was informed during the oral proceedings that the second auxiliary request filed in opposition proceedings in response to the summons on 25 February 2022 contravened the requirements of Article 123(2) EPC for the same reason as for the first auxiliary request (see item 23 of the Minutes). Therefore, the patent proprietor was in a position already at this stage of the proceedings (i.e. during the oral proceedings) to present a request corresponding to auxiliary request 2 of the appeal.

Therefore the requirements of Article 12(6) RPBA are not met.

4. Auxiliary request 3 - Admissibility - Article 12(2), (4) and (6) RPBA

Claim 1 of auxiliary request 3 was filed for the first time in appeal and corresponds to claim 1 of auxiliary request 2 with the introduction of the liquid guiding structure:

(d) the device (11) further includes a liquid guiding structure and a recess at the first end (35) of the capillary buffer portion accommodating the liquid guiding structure

4.1 The appellant 1 (patent proprietor) argues that a corresponding request adding the "liquid guiding structure" to claim 3 was filed prior to oral opposition proceedings but rejected as mentioned above due to the additional amendment of the term "first end" to "second end" with respect to claim 3 as granted.

Already with respect to auxiliary request 1 of the oral proceedings, the opposition division did not allow a deletion of the amendment "first end" to "second end" and the use of the original wording of claim 3 as granted, although the corresponding objection against this amendment was raised for the first time during oral proceedings.

Since an amendment of auxiliary request 1 was already rejected during oral proceedings, a corresponding amendment regarding the subject matter of auxiliary request 2 would have been rejected for the same reasons.

4.2 For the same reasons as for auxiliary request 2, the Board did not admit auxiliary request 3 in particular as the basis for the dependent claims was not submitted.

5. Auxiliary request 4

Auxiliary request 4 corresponds to auxiliary request 4 in opposition, which has been found allowable by the opposition division.

Claim 1 of auxiliary request 4 corresponds to claim 1 as granted with the additional features of claim 2 as granted.

"wherein the capillary buffer portion comprises a plurality of buffer spaces (1120) formed between a plurality of buffer plates (1110), an air channel (115) connecting into all of the buffer spaces (1120), and a capillary slit (113) traverse to the buffer spaces (1120)".

5.1 Added subject-matter - Article 123(2) EPC

The objection concerning claim 2 raised for the first time during oral proceedings in appeal was not taken into account pursuant Article 13(2) RPBA. Dependent claims 8-13 do not extend beyond the content of the application as filed and while the amendment to paragraph [0032] extends beyond the content of the application as filed, the amended paragraph [0032] according to "Alternative 2 - Amended paragraph [0032] filed on 1 February 2023 fulfils the requirements of Article 123(2) EPC.

5.1.1 The appellant 2 (opponent) raised an objection pursuant Article 123(2) against claim 2 for the first time during oral proceedings in appeal. According to the appellant 2 (opponent), there were exceptional circumstances to admit the objection as the same objection was raised against claim 1 of auxiliary request 6 on page 30 of their letter of 7 June 2023.

According to appellant 2 (opponent), following decision T 2219/18, the objection should be taken into consideration by the Board pursuant to Article 13(2) RPBA 2020 as the arguments against claim 2 of auxiliary request 4 submitted during oral proceedings were entirely identical with the arguments submitted with letter of 7 June 2023 in appeal against claim 1 of auxiliary request 6. It was immediately apparent that these arguments likewise applied against claim 2 of auxiliary request 4. Furthermore, this objection was not detrimental to the procedural economy.

5.1.2 The appellant 1 (patent proprietor) requested not to admit this objection. In their view, although auxiliary request 4 had been filed on 25 February 2022 (more than 3 years before the oral proceedings in appeal), an objection pursuant Article 123(2) EPC against claim 2 had never been raised before, neither in opposition nor in appeal proceedings. The appellant 2 (opponent) could and should have raised this objection earlier.

5.1.3 The Board decided not to take into account the objection at this late stage of the proceedings pursuant to Article 13(2) RPBA for the following reasons:

- Auxiliary request 4 was filed on 25 February 2022 as auxiliary request 3 and was the basis for the

maintenance of the patent. Appellant 2 (opponent) raised objections pursuant Article 123(2) EPC regarding claims 8-13 and paragraph [0032]. However, they did not raise further objections pursuant Article 123(2) EPC. This objection could and should have been raised in opposition proceedings.

- The primary objective of the appeal proceedings is to review the decision of the opposition division. Not raising the objection during opposition proceedings prevented the opposition division from taking a decision on this point. A review by the Board is therefore not possible and an assessment at the stage of the appeal proceedings does not contribute to the procedural economy.

- While a similar objection was raised with regard to auxiliary request 6, this objection was not discussed with regard to auxiliary request 4 neither in opposition proceedings nor in appeal proceedings. The appellant 1 (patent proprietor) cannot be confronted at this late stage of the proceedings with new objections regarding claim 2 of auxiliary request 4 maintained by the opposition division. This would be against the principles of fairness.

The Board notes that the present situation is different from the case T 2219/18 cited by the appellant (opponent).

In T 2219/18 the opponent's objection regarding the inventive step of claim 1 of auxiliary request 3 submitted during oral proceedings was taken into consideration as it was identical with the objection submitted with the statement of grounds of appeal against claim 1 of auxiliary request 1.

However, in case T 2219/18, auxiliary request 3 had not been discussed in opposition proceedings as the opposition division found auxiliary request 1 to meet the requirements of the EPC. The appeal of the opponent was mainly concerned with the maintenance of the patent on the basis of auxiliary request 1. The opponent had not commented on auxiliary requests 2 and 3 in writing, but only during the oral proceedings.

In the present case the new objections raised for the first time during oral proceedings against claim 2 concerned auxiliary request 4, which was discussed in opposition proceedings and maintained by the opposition division and for which objections pursuant Article 123(2) were raised against claims 8-13. Such an objection could not have been foreseen and comes as a surprise to the Board and the appellant 1 (patent proprietor) on the day of the oral proceedings.

5.1.4 The appellant 2 (opponent) argued that the subject-matter of dependent claims 8-13 corresponding to dependent claims 12-17 of the application as filed which were dependent on independent claim 9 and 11 extended beyond the content of the application as filed.

The appellant 2 (opponent) disputed that the feature of an "outlet in the housing" and the feature that the liquid supply was "positioned to provide liquid to the atomizer" were implicit in the electronic vaporizing device with an atomizer and a liquid supply defined in claim 1.

In relation to the feature of the "outlet in the housing", the appellant 2 (opponent) specified that while every electronic smoking device had an outlet, such an outlet did not necessarily have to be provided

in the same "housing" that houses an "atomizer" and "capillary buffer", in line with claim 1 of auxiliary request 4. For example, the "outlet" might be provided as part of a separate mouthpiece component or by a different housing element which did not house the "atomizer" and "capillary buffer".

By failing to recite "a housing having outlet" in combination with the features "an atomizer in the housing" and "a capillary buffer in the housing", as recited in claim 9 as originally filed, the appellant 1 (patent proprietor) had broadened the scope of the claims as originally filed to include other arrangements in which an "outlet" could be provided by a component other than the "housing". This amounted to an intermediate generalisation which extended the scope of auxiliary request 4 beyond the content of the application as filed contrary to Article 123(2) EPC.

Similarly, in claim 1 of auxiliary request 4, no connection was defined between the "liquid supply" and the "atomizer", even indirectly. Instead, claim 1 of auxiliary request 4 stated at most that "the capillary buffer (101) in between the liquid supply (34) and the atomizer (26)" and that "liquid supply (34) is connecting into the liquid conduit". Contrary to claim 9 as originally filed, there was no linkage defined between the "liquid conduit" and the "atomizer". As a result, even if there was an implicit linking of the "liquid supply" and the "atomizer", it was not implicit in claim 1 of auxiliary request 4 that said linkage was through the "liquid conduit".

The appellant 2 (opponent) further denied that buffer spaces for "holding liquid" were defined in claim 1.

5.1.5 The Board is not convinced by the arguments of the appellant 2 (opponent) and follows the opinion of the opposition division and the appellant 1 (patent proprietor) that both the feature of an "outlet in the housing" and the feature that the liquid supply is "positioned to provide liquid to the atomiser" are implicit in the electronic vaporising device with an atomiser and a liquid supply defined in claim 1. Indeed, as argued by the appellant 1 (patent proprietor), every electronic smoking device has an outlet in the housing, otherwise vapour cannot be provided to the user. In particular claim 1 of auxiliary request 1 comprises a vapor channel leading to the atomizer. The vapor/air leading to the atomiser must come out of the housing such that an outlet is implicit.

Also, the liquid supply of the electronic vaporising device is a liquid supply which provides liquid to the atomiser. This is the general use of a liquid supply in electronic smoking devices. The liquid supply is claimed to connect into the liquid conduit of the capillary buffer positioned between the liquid supply and the atomiser. Thus, the liquid supply is positioned to provide liquid to the atomizer. Furthermore, the arrangement of the capillary buffer with buffer spaces of claim 1 is implicitly for holding liquid.

5.1.6 The appellant 2 (opponent) also argued that paragraph [0032] of the adapted description to auxiliary request 4 did not comply with Article 123(2) EPC. Paragraph [0032] (paragraph [0043] of the application as filed) was amended as follows:
"[0032] In another embodiment, the capillary slit 113 and the air vent 114 can be provided on the same end of the capillary buffer. In an embodiment not according to

the invention, the capillary slit 113 and the air vent 114 can be arranged especially on the first end 33 of the capillary buffer, so that the liquid conduit and the vapor channel can be eliminated from the capillary buffer. In this design the atomizer can be arranged near or in the e-liquid, and e-liquid can be consumed at the atomizer without moving through the capillary buffer, with vapour generated at or within the liquid supply."

Paragraph [0043] as filed disclosed that the removal of the liquid conduit and the vapour channel was a specific result of the provision of the capillary slit and the air vent on the same end of the capillary. This causal relationship was apparent from the words "so that" in the first sentence of paragraph [0043] as filed. The separation of the sentence adds new subject-matter.

- 5.1.7 The appellant 1 (patent proprietor) argued that paragraph [0032] was amended to exclude an embodiment in which the liquid conduit and the vapour channel could be eliminated. Paragraph [0032], corresponding to originally filed paragraph [0043], did not require that in case the capillary slit and the air vent were provided on the same end of the capillary buffer, the liquid conduit and the vapour channel had to be eliminated. Disclosed was that in such arrangement the liquid conduit and vapour channel could be eliminated, i.e. it was optional to eliminate the liquid conduit and the vapour channel.
- The capillary slit and the vapour channel could be formed on the same end of the capillary buffer, with the liquid conduit and the vapour channel present.
- The appellant 1 (patent proprietor) also pointed out to claims 9-12 and claim 13 as granted according to which

the capillary slit or the air vent were both claimed without any limitation with respect to the end of the capillary buffer and without any limitation on whether they could only be provided on opposing ends of the capillary buffer.

5.1.8 The Board agrees with the appellant 2 (opponent) that the amendments made to paragraph [0032] change its meaning and result in information extending beyond the content of the application as filed.

However, the replacement paragraphs "Alternative 2 - Amended paragraph [0032]" and Alternative 3 - Deleted paragraph [0032] submitted on 1 February 2023 resolve this issue.

The appellant 1 (patent proprietor) indicated during the oral proceedings that they wished to proceed with the replacement paragraphs "Alternative 2 - Amended paragraph [0032]".

5.1.9 The appellant 2 (opponent) argued that alternatives 2 and 3 of the amended description, raised in section 4.1 of the patent proprietor's letter dated 1 February 2023, did not form part of auxiliary request 4.

Therefore, auxiliary request 4 could not be considered allowable because auxiliary request 4 did not include a description in line with any of the alternatives raised in section 4.1 of the appellant's 1 (patent proprietor's) letter dated 1 February 2023. Rather these alternatives were generally identified as "Further Auxiliary Requests". The failure of the appellant 1 (patent proprietor) to identify the order in which these "Further Auxiliary Requests" should be considered - both in terms of the order the three alternatives should be considered in, and also whether these "Further Auxiliary Requests" should be considered before or after the numbered auxiliary requests - meant

that the "Further Auxiliary Requests" could not be considered to have been admissibly filed as required for the consideration by the Board in line with Article 113(2) EPC.

Furthermore, it was established practice that requests were deemed inadmissible when they were provided as requests of equal ranking, as in the present case (see the Case Law of the Boards of Appeal, III.I.3.2, page 903).

5.1.10 The Board is not convinced by the appellant's 2 (opponent's) arguments.

Indeed, the three alternatives of the adapted description to auxiliary request 4 are titled:

- Auxiliary Request 4 - Replacement paragraphs Alternative 1 - Unamended paragraph [0032]
- Auxiliary Request 4 - Replacement paragraphs Alternative 2 - Amended paragraph [0032]
- Auxiliary Request 4 - Replacement paragraphs Alternative 3 - Deleted paragraph [0032].

Therefore, it is clear that alternatives 1-3 of the adapted description of auxiliary request 4, are ranked in this order when considering auxiliary request 4. Following auxiliary request 3, comes auxiliary request 4 with the adapted description titled Alternative 1, then Alternative 2 and then Alternative 3. Therefore, the "Further Auxiliary Requests" are not of equal ranking and their order is clear.

5.2 Novelty over D2

The subject-matter of claim 1 is novel over D2

5.2.1 The appellant 2 (opponent) asserted that the components named as "locating pegs 110" in D2 corresponded to

buffer plates. For example, as described on page 8, lines 16 to 27 of D2 the pegs (and in particular their shoulders) were positioned to join a lower and an upper cradle component, such that "when the upper cradle component 101 was mounted to the lower cradle component 102 they were separated by a gap corresponding to the height of the shoulders 110A" of the pegs (page 8, lines 25-27 of D2).

The broadest technically sensible meaning for a plate could be considered as a component having two opposing, substantially parallel, faces. The locating pegs, and in particular their shoulders, were disclosed in D2 as providing said opposing, substantially parallel, faces, with each face being aligned with a corresponding edge of a slot in the heater.

In view of paragraph [0025] of the patent the "buffer plates" could be considered as spaced apart components between which buffer spaces were provided. The locating pegs of D2 were spaced apart, and the capillary channels 200 were located between said pegs. Therefore, the locating pegs of D2 also met this special definition.

- 5.2.2 The Board is not convinced by the arguments of the appellant 2 (opponent). The locating pegs cannot be considered as buffer plates forming buffer spaces. It is not just the wording used in D2, i.e. "locating pegs", that differs, but also their shape and their function. Indeed, the locating pegs are pins extending from the lower cradle 102 to align the slots in the heating element and corresponding locating holes in the upper cradle 101. The locating pegs do not have the shape of a plate and do not define buffer spaces. While the plates are not limited to round or oval plates in claim 1, a plate has generally a smaller thickness compared to its other two dimensions, which is not the

case for the locating pegs of D2. Furthermore, while the "locating pegs" impact the liquid flow toward the atomiser, they do not provide buffer spaces.

5.3 Novelty over D5

The subject-matter of claim 1 is novel over D5.

- 5.3.1 The appellant 2 (opponent) argued that the three following features of claim 1 were disclosed in D5:
- i) the capillary buffer had a vapour channel leading to the atomiser,
 - ii) the capillary buffer was in between the liquid supply and the atomiser
 - iii) the capillary buffer portion comprised a liquid conduit and a capillary slit.

i) In their view, a reasonable and technically sensible interpretation of the vapour channel of claim 1 of auxiliary request 4 was that it required a component of the capillary buffer (not the capillary buffer portion) to define an air pathway which is fluidly connected with an atomiser such that air could flow towards or away from the atomiser.

The appellant 2 (opponent) considered three different alternatives for "the vapour channel leading to the atomizer":

- the ventilation duct 52 of D5 (figure 17, [0139])
- the gap 60 of D5 (figure 11)
- the ventilation gap 56 in combination with the gap 60 (figure 11, [0141]).

The person skilled in the art would take a holistic view of the device of D5 and consider which component(s) fulfilled the function of a "capillary

buffer". With this in mind, the ventilation duct 52, the gap 60 and the ventilation gap 56 of D5 should not be considered outside of the "capillary buffer" itself because they had a first end, a second end, and each provide a "channel leading to the atomizer".

Furthermore, no language in claim 1 of auxiliary request 4, or in the patent as a whole led to an interpretation of "the vapor channel leading to the atomizer" where more than a simple fluid connection to the atomizer (i.e. a direct or indirect fluid connection) was required. Claim 1 was a product claim and thus this feature did not require "vapour" to be present. Instead, this feature required a fluid connection to the atomizer, the fluid connection being direct or indirect.

Firstly, as shown in the figure 11 of D5, the gap 60 and the ventilation gap 56 were connected to chamber 21,58 within which the heater composite 22 (atomizer) was provided. As per paragraphs [0118] and [0119] of D5, air was directed to flow along one or both sides of the planar composite 22 of D5. With regard to figure 11, the flow of air during an inhalation was in a direction normal to that of the page or cross-section shown in the figure (reference was made to the arrows depicted in figures 12, 13a and 13b of D5 which depicted a cross-section which was perpendicular to that depicted in figure 11).

Secondly, paragraph [0139] of D5 explicitly disclosed that *"a ventilation duct 52 which connects the reservoir 45 to the chamber 21 ... The ventilation duct opens into the chamber 21, preferably at a location upstream of the composite 22, 39"*.

Hence, for substantially similar reasons to those described above in relation to the gap 60 and the ventilation gap 56, when the air pressure in the chamber 21 dropped following user inhalation on the device, air from the ventilation duct 52 would be drawn towards the composite 22. Furthermore, by definition air flowed from an upstream direction to a downstream direction in use. Hence in the disclosed preferred arrangement of paragraph [0139] of D5, where the ventilation duct 56 opened into the chamber 21 upstream of the composite, air was drawn from the ventilation duct 52 into the chamber 21 during an inhalation and then drawn in a downstream direction towards the composite 22 (e.g. in line with Figure 3 and paragraph [0033] of the Patent which disclosed the "vapour channel 32" upstream of the "atomizer 26"). Therefore, the ventilation duct 52 must be considered to lead towards the composite heater 22.

ii) Furthermore, the appellant 2 (opponent) considered as the atomiser the part between the two electric conductive plates such that the capillary buffer was positioned between the liquid supply and the atomiser.

iii) Finally, in their view claim 1 did not require that the liquid conduit be distinct from the capillary slit. Therefore, the capillary gap 41 in D5 could be both the liquid conduit and the capillary slit. Claim 1 of auxiliary request 4 did not define any structural or functional relationship between the liquid conduit and capillary slit. Hence, there was no technical reason why these features could not be met by the same component in the prior art.

5.3.2 The Board is not convinced by the arguments of the appellant 2 (opponent) at least regarding feature i) and iii) .

(a) Firstly, neither ventilation duct 52, nor the gap 60 nor the gap 56 in combination with the gap 60 can be considered as a channel leading to the atomizer part of the capillary buffer. Indeed, they are all outside the capillary buffer. In the Board's view, their interpretation of what constitutes the capillary buffer is too stretched. Spaces between the capillary buffer and the housing are considered by the appellant 2 (opponent) such as to map the features of claim 1. Furthermore, the ventilation duct 52, the gap 60 and the ventilation gap 56 are not leading air or vapour towards the atomiser. The "vapor channel leading to the atomizer" cannot be interpreted as a fluid connection to the atomiser, the fluid connection being direct or indirect. Claim 1 requires a vapour channel leading to the atomizer meaning that the vapour, which is actually air, is led by this channel to the atomizer. This feature cannot be reduced to a structural feature only, but rather requires that the vapour is actually led to the atomizer, which is not the case in the three envisaged scenarios of the appellant (opponent).

Furthermore, as mentioned by the opposition division, the ventilation gap 56, identified by the appellant 2 (opponent) also to be the "air channel connecting into all the buffer spaces", cannot realise the two distinct components of the capillary buffer portion defined in claim 1.

- (b) Secondly the capillary buffer portion does not comprise both a liquid conduit and a capillary slit. These features are presented as distinct features in claim 1 and cannot be considered as being one.

During oral proceedings the appellant 2 (opponent) considered the vertical slots 54 in figure 17 as the liquid conduit and the horizontal conduit 41 of figure 17 as the capillary slit. However, the vertical slots 54 in figure 17 define a buffer store 53 according to paragraph [0139] of D5. The slots 54 cannot be considered as a liquid conduit.

5.4 Inventive step starting from D5 alone or in combination with D3

The subject-matter of claim 1 involves an inventive step starting from D5 either alone or in combination with D3.

5.4.1 The appellant 2 (opponent) argued that features i) and iii) did not contribute to any technical effect.

In relation to feature i), there was no suggestion in the patent that the position of the vapour channel helped or hindered the prevention of leakage.

In relation to feature iii), the alleged distinction appeared to be the provision of a distinct liquid conduit and a distinct capillary slit. The "liquid conduit" did not contribute to the prevention of leakage, nor was this effect suggested in the Patent. Rather, the "liquid conduit" as described in the patent could be at most considered to provide a pathway to the atomizer.

Hence, only the "capillary slit" of claim 1 had any potential relevance to the movement of liquid into the buffer spaces. There was no discussion or suggestion that the "capillary gap 41" of D5 did not provide the functionality of the claimed "capillary slit" (i.e. the alleged distinction was that the claim required a distinct liquid conduit and a distinct capillary slit).

Therefore, the identification of the objective technical problem as the provision of an alternate design of electronic vaporizing device was appropriate. Importantly, the alleged distinguishing features i) and iii) were not linked in any structural or functional way such that they could be arrived at by separate and unrelated modifications. In other words, the alleged distinctions related to partial problems, each of which could be summarised as the provision of an alternate design of an electronic vaporizing device.

In relation to features i) and iii), the changes to the device of D5 corresponded to trivial design modifications. For example, including a "capillary slit" alongside the liquid conduit by separating the "liquid conduit" and the "capillary slit" would be a trivial design modification e.g., to facilitate liquid flow to the atomiser as well as into the buffer spaces. A separator could be and indeed would be inserted between the "buffer store 53" and the "electrical contact 23" to separate the originally disclosed "capillary gap 41" into a distinct capillary slit and a distinct liquid conduit, with the dimensions of the various channels being selected to achieve the desired movement of liquid. Notably, such a modification did not impact the remaining features of D5 or introduced an unexpected technical advantage.

Similarly, the skilled person would consider providing a pipe defining an airflow channel within the "buffer store 53" of D5 as a potential alternative, given the proximity of the "buffer store 53" to the heater composite 22, for providing the airflow channel outside of the "buffer store 53". For example, a pipe defining the "ventilation duct 52" could connect into the "reservoir 45" through the "buffer store 53", instead of connecting through the "contact 23". The skilled person would understand that the relative trade-offs inherent in the arbitrary selection between the two arrangements in terms of advantages and disadvantages, and would not consider the modification to impact the remaining features of D5. In line with the Case Law of the Boards of Appeal I.D.9.21.9, page 289, "A merely arbitrary choice from a host of possible solutions cannot be considered inventive if not justified by an unknown technical effect that distinguishes the claimed solution from the other solutions".

Furthermore, the fact that D3 taught a different arrangement to D5 would motivate the skilled person to consider its teachings particularly when considering respective objective technical problems of how to provide alternatives.

The skilled person would be motivated in any event to provide an airflow channel through the "buffer store 53" of D5 by the disclosure of D3 which depicted in, for example, figure 18 a channel labelled 412 extending through the capillary disc 44 (which was considered to disclose a capillary buffer portion by the Opposition Division in their Decision, see sections 6.1.2 and 17.6 of the Decision).

Regarding feature i), D3 disclosed on page 12, lines 3-5, "An ambient airflow through the cartridge may equalize pressure differences within the cartridge and thereby support an unhindered capillary action towards the heating element".

The skilled person starting from D5 would appreciate that to provide an airflow channel through the liquid storage portion (high retention or release material of D3) as per figure 18 and page 28, lines 17-22 of D3, was an obvious alternative. As such, the skilled person could and would modify D5 towards D3 without any difficulty or inventive skill when solving the above-mentioned problem and thereby arrive at feature i).

Regarding feature ii), D5 taught that a multilayer "composite" structure could be used to provide a liquid to a heating element in a chamber (see for example, paragraph [0117], and Table 1 and paragraph [0123] of D5).

D3 taught that a heater 30 could be combined with a capillary disc to "secure provision of liquid for vaporization if the heater is activated" (see page 27, line 33, to page 28, line 2, of D3).

The skilled person would therefore identify similarities between the heating/wick assemblies of the two documents and readily apply the teachings of D3 to D5 when looking for an alternative. In particular, the skilled person would readily consider replacing the composite wick-mesh-heater 22 assembly of D5 with a heater buffer-assembly as per D3, and would notably adopt the orientation of the assembly of D3 such that the assembly did not extend into the capillary gap 41, but instead the assembly was provided across the opening of the capillary gap 41 into the chamber 21 in the system of D5. Such a modification would clearly place the buffer store of D5 in between the atomiser

and the liquid supply, thereby meeting the requirement of feature ii) of claim 1.

With respect to feature iii), it was noted that having made the modification to replace the composite wick-mesh-heater 22 assembly of D5 with a heater-buffer-assembly as per D3, the modified system of D5 included the original capillary gap 41 of D5, and a newly incorporated capillary disc which provided a "liquid conduit". Therefore, by implementing an alternative as set out above to overcome the problem of how to provide an alternative to an atomizer that extended past the capillary buffer portion towards the liquid supply, the skilled person arrived at a system having a distinct liquid conduit and capillary slit.

5.4.2 The Board is not convinced by the arguments of the appellant 2 (opponent).

Even if the problem to be solved were considered to be the provision of an alternative design of an electronic vaporizing device and the differences i) and iii) were not linked, the skilled person would not arrive at the subject-matter of claim 1 without an ex post facto analysis.

Indeed, there is no reason to provide a slit transverse to the buffer spaces with the conduit 41, which already enables the buffer spaces to be filled with liquid coming from the liquid supply.

Furthermore, the design of the electronic vaporizing device in D5 is such that the vapour channel does not pass through the capillary buffer, the changes necessary to arrive at such an embodiment would be significant and without any incentives.

Furthermore, the combination of D5 and D3 does not appear appropriate as the electronic vaporising devices disclosed therein are significantly different. The changes proposed by the appellant (opponent) starting from D5 in view of D3 do not lead to an electronic vaporizing device according to claim 1. As noted by the appellant 1 (patent proprietor), while a central liquid guiding passage is present, no vapour passage in the capillary buffer is present. Furthermore, as explained by the appellant 1 (patent proprietor), the changes proposed by the appellant 2 (opponent) remove the electronic vaporizing device of D5 of its central element, the composite, resting on and in contact with a plate-like heater contact 23. The composite was provided to extend into the capillary gap supported by the contact to allow for quick and reliable wetting of the wick/heater structure. The arrangement is now deprived of this advantage.

Order

For these reasons it is decided that:

The decision under appeal is set aside. The case is remitted to the opposition division with the order to maintain the patent as amended in the following version:

Description:

- paragraphs [0001]-[0005], [0008]-[0031] and [0033]-[0034] of the patent specification
- paragraphs [0006]-[0007], [0032] and [0035] according to "Alternative 2 - Amended paragraph [0032]" filed with the reply dated 1 February 2023

Claims:

1-13 according to auxiliary request 4 filed with the reply dated 1 February 2023.

Drawings:

pages 8-12 of the patent specification

The Registrar:

The Chairman:



M. Schalow

V. Vinci

Decision electronically authenticated