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**Datasheet for the decision
of 21 April 2026**

Case Number: T 0024/24 - 3.4.01

Application Number: 19191197.3

Publication Number: 3760065

IPC: H05B1/00, H05B6/10, A24F40/465,
A24F40/57

Language of the proceedings: EN

Title of invention:

AEROSOL-GENERATING DEVICE COMPRISING AN INDUCTIVE HEATING
ARRANGEMENT COMPRISING FIRST AND SECOND LC CIRCUITS HAVING
DIFFERENT RESONANCE FREQUENCIES

Patent Proprietor:

Philip Morris Products S.A.

Opponent:

Nicoventures Trading Limited

Headword:

Aerosol-generating device with two LC circuits / Philip Morris

Relevant legal provisions:

EPC Art. 100(c), 100(a)

Keyword:

Decision not to admit late-filed requests - reversed by the Board (yes)

Main request, auxiliary requests 1 to 10, 1-I to 10-I, 1-II to 10-II - Inventive step - (no)

Auxiliary requests 11, I-11 - Added subject-matter (yes)



Beschwerdekammern

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Case Number: T 0024/24 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 21 April 2026

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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted/electronically transmitted on 3 November 2023 rejecting the opposition filed against European patent No. 3760065 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairwoman A. Medeiros Gaspar
Members: P. Fontenay
D. Rogers

Summary of Facts and Submissions

- I. The opponent (appellant) filed an appeal against the decision of the Opposition Division to maintain the patent in its granted form. They requested that the decision be set aside and the patent revoked in its entirety.
- II. The Opposition Division concluded, *inter alia*, that the subject-matter of claim 1 of the disputed patent was novel and involved an inventive step in view of document
- D1: WO-A-2018/073376
- combined with
- D6: WO-A-2018/019855 or
D9: WO-A-2018/206616.
- III. In their statement of grounds, the opponent reiterated the objections already raised in the first instance under Article 100(a), and 100(c) EPC.

They argued that the subject-matter of claim 1 was not novel over the teaching of D1. Even if The Board were to consider that D1 did not disclose the two features identified by the Opposition Division as distinguishing claim 1 from the teaching of D1, these two differences would not be sufficient to render claim 1 inventive in view of D1, or in view of D1 combined with other documents, among which D6 or D9. This concerns the features that the second LC circuit has a resonant

frequency different from the first resonant frequency of the first LC circuit, and that the controller is configured to initiate the heating of the aerosol-forming substrate by driving a first varying current in the first inductor coil followed by subsequent driving of a second varying current in the second inductor coil.

The opponent also repeated their view that claim 1 defined an undisclosed combination of features. Also claims 2 to 6, which contained additional features defined in relation to various "embodiments" or "examples" of the invention, but which were not directly and unambiguously disclosed in relation with the features of claim 1, suffered from issues of added-matter.

- IV. The proprietor (respondent) requested that the decision of the Opposition Division be upheld, i.e. that the patent be maintained as granted (main request). In the alternative, the proprietor requested maintenance of the patent in amended form on the basis of auxiliary requests 1 to 12 (encompassing requests 1, 2, 3, 4, 5, 6, 7, 8, 8a, 8b, 8c, 8d, 8e, 8f, 8g, 9, 9a, 9b, 9c, 9d, 9e, 9f, 9g, 10, 10a, 10b, 10c, 10d, 10e, 10f, 10g, 11, 12), requests 0-I to 11-I (encompassing requests 0-I, 1-I, 2-I, 3-I, 4-I, 5-I, 6-I, 7-I, 8-I, 8a-I, 8b-I, 8c-I, 8d-I, 8e-I, 8f-I, 8g-I, 9-I, 9a-I, 9b-I, 9c-I, 9d-I, 9e-I, 9f-I, 9g-I, 10-I, 10a-I, 10b-I, 10c-I, 10d-I, 10e-I, 10f-I, 10g-I, 11-I) and requests 0-II to 10-II (encompassing requests 0-II, 1-II, 2-II, 3-II, 4-II, 5-II, 6-II, 7-II, 8-II, 8a-II, 8b-II, 8c-II, 8d-II, 8e-II, 8f-II, 8g-II, 9-II, 9a-II, 9b-II, 9c-II, 9d-II, 9e-II, 9f-II, 9g-II, 10-II, 10a-II, 10b-II, 10c-II, 10d-II, 10e-II, 10f-II, 10g-II).

Auxiliary requests 1 to 12 are identical to the corresponding requests filed in the opposition proceedings. The same is true to auxiliary requests 0-I to 11-I, which are based on the main and auxiliary requests 1 to 11, respectively, where dependent claims 5 and 6 have been deleted. Auxiliary requests 0-I to 11-I had, however, been filed late and were not admitted into the opposition proceedings. Auxiliary requests 0-II to 10-II are new requests, filed with the proprietor's reply to the opponent's statement of grounds of appeal. They correspond to the main request and auxiliary requests 1 to 10, respectively, where dependent claims 1 to 6 have been deleted.

In substance, it was argued that the provision of LC circuits with different resonant frequencies allowed selective heating. A synergy resulted from this configuration combined with the specific activation sequence recited in claim 1. This allowed a preservation of the distal portion of the substrate while also improving the user's experience, when the device was used with different substrates present in the different device cavities.

- V. In a response to the proprietor's submission, the opponent provided further substantive arguments and, furthermore, requested that none of the auxiliary requests be admitted into proceedings.
- VI. In a communication pursuant to Article 15(1) RPBA, annexed to the summons, the parties were informed of the Board's preliminary opinion.

The Board stated its intention to consider the main request and auxiliary requests 1 - 12, and to reverse the Examining Division's decision not to admit auxiliary requests of the I-series, thus also admitting this series of requests into proceedings. The admissibility of the requests of the II-series was to be discussed further at the oral proceedings.

In the Board's opinion, claim 1 of the main request did not contain added subject-matter, whereas claims 2 to 6 did.

Two differences were identified between the subject-matter of claim 1 of the patent and the disclosure of D1, but no synergy was recognised as resulting therefrom. The subject-matter defined was considered to lack inventive step in view of D1 combined with D6, or with D6 and D9. The additional features defined in claim 1 of each of auxiliary requests 1, 2, 3, 4, 5, 6, 7, 8, 8a, 8b, 8c, 8d, 8e, 8f, 8g, 9, 9a, 9b, 9c, 9d, 9e, 9f, 9g, 10, 10a, 10b, 10c, 10d, 10e, 10f, 10g, 11, 12 appeared to be well known in the art. Their combination with the features of claim 1 of the main request did not appear to provide effects extending beyond the effects as known in the prior art, so that also the subject-matter of claim 1 of each of those requests did not involve an inventive step.

VII. The proprietor replied to the opinion of the Board, emphasising that a synergy arose from the two differences identified. This point was further elaborated upon during oral proceedings.

VIII. During oral proceedings before the Board, the proprietor withdrew auxiliary request 12. The opponent's request, that none of the proprietor's auxiliary requests be admitted, was also withdrawn.

IX. Claim 1 of the main request (patent as granted) reads, [with the features as labelled by the Opposition Division]:

1. An aerosol-generating device (602) comprising:

1.1 a device cavity (104) having a proximal end and a distal end opposite the proximal end, wherein the proximal end of the device cavity (104) is substantially open for receiving an aerosol-generating article (700),

1.2 an inductive heating arrangement (501) configured to heat an aerosol-forming substrate (702), the inductive heating (501) arrangement comprising:

1.2.1 a susceptor arrangement (540) that is heatable by penetration with a varying magnetic field to heat the aerosol-forming substrate (702),

1.2.2 a first LC circuit (510), the first LC circuit (510) at least comprising a first inductor coil (512) arranged towards the proximal end of the device cavity (104) and a first capacitor (514), wherein the first LC circuit (510) has a first resonance frequency, and

1.2.3 a second LC circuit (520), the second LC circuit (520) at least comprising a second inductor coil (522) arranged towards the distal end of the device cavity (104) and a second capacitor (524),

1.3 wherein the second LC circuit (520) has a second resonance frequency different from the first resonance frequency of the first LC circuit (510), and

1.4 wherein the second inductor coil (522) has a different number of turns to the first inductor coil (512), and

1.5 a controller (527) configured to initiate heating of an aerosol-forming substrate (702) by driving a first varying current in the first inductor coil (512) and subsequently driving a second varying current in the second inductor coil (522).

X. Claim 1 of auxiliary request 1 further defines the aerosol-generating article as *comprising an aerosol-forming substrate*.

XI. Claim 1 of auxiliary request 2 adds to claim 1 of auxiliary request 1 the definition that *an inner surface of the susceptor arrangement forms an inner surface of the device cavity*.

XII. Claim 1 of auxiliary request 3 adds to claim 1 of auxiliary request 1 the definition that *the susceptor arrangement is an external heating element configured to heat an outer surface of the aerosol forming substrate*.

XIII. Claim 1 of auxiliary request 4 adds to claim 1 of auxiliary request 1 the definition that *the susceptor arrangement has a unitary structure*.

- XIV. Claim 1 of auxiliary request 5 adds to claim 1 of auxiliary request 1 the definition that *the susceptor arrangement is a tubular susceptor arrangement*.
- XV. Claim 1 of auxiliary request 6 combines the amendments introduced in claim 1 of auxiliary requests 2 and 5.
- XVI. Claim 1 of auxiliary Request 7 combines the amendments introduced in claim 1 of auxiliary requests 2 to 5.
- XVII. Claim 1 of Auxiliary Request 8 defines the subject-matter of granted claim 12. Specifically, claim 1 of auxiliary request 8 defines:
An aerosol-generating system comprising an aerosol-generating device and an aerosol-generating article comprising an aerosol-forming substrate,...
- with the *aerosol-generating device* comprising the features of granted claim 1.
- XVIII. Claim 1 of auxiliary request 8a specifies, with regard to claim 1 of auxiliary request 8, that *the aerosol-forming substrate is a solid aerosol-forming substrate*.
- XIX. Claim 1 of auxiliary requests 8b, 8c, 8d, 8e, 8f and 8g adds to claim 1 of auxiliary request 8 the features added to claim 1 of auxiliary requests 2 to 7, respectively.

XX. Claim 1 of auxiliary Request 9 adds to claim 1 of auxiliary Request 8 the limitations that the aerosol-generating article is *disposable* and that *a mouthpiece is provided as part of the aerosol-generating article*.

Claim 1 of auxiliary request 9a adds to claim 1 of auxiliary request 9, the limitation introduced into claim 1 of auxiliary request 8a.

Claim 1 of auxiliary requests 9b, 9c, 9d, 9e, 9f and 9g add to claim 1 of auxiliary request 9 the limitations introduced in claim 1 of auxiliary requests 2 to 7, respectively.

XXI. Claim 1 of auxiliary Request 10 adds to claim 1 of auxiliary Request 8, the definitions that the aerosol-generating article is *disposable*, and that it further comprises *a filter plug located at a proximal end of the aerosol-generating article, wherein the filter plug forms a mouthpiece of the aerosol-generating system on which a user draws to receive aerosol generated by the system*.

Claim 1 of auxiliary request 10a adds to claim 1 of auxiliary request 10, the limitation added to claim 1 of auxiliary request 8a.

Claim 1 of auxiliary requests 10b, 10c, 10d, 10e, 10f and 10g combines the amendments introduced in claim 1 of auxiliary request 10 with those introduced in claim 1 of auxiliary requests 2 to 7, respectively.

XXII. Claim 1 of auxiliary request 11 comprises the features of granted claims 1, 2, 3 and 4. It adds at the end of claim 1 of the main request the limitations:

wherein the controller (527) is configured to drive the first LC circuit (510) with a first AC current for generating a first alternating magnetic field for heating a first portion of the susceptor arrangement (540), wherein the controller (527) is configured to drive the second LC circuit (520) with a second AC current for generating a second alternating magnetic field for heating a second portion of the susceptor arrangement (540), and wherein the controller (527) is configured to supply the first AC current with a frequency corresponding to the first resonance frequency of the first LC circuit (510) and to supply the second AC current with a frequency corresponding to the second resonance frequency of the second LC circuit (520),

wherein the controller (527) is configured to supply the first AC current to the first LC circuit (510) during a first phase to increase the temperature of the first portion of the susceptor arrangement (540) from an initial temperature to a first operating temperature, and wherein the controller (527) is configured to supply the first AC current with a frequency corresponding to the first resonance frequency of the first LC circuit (510) during the first phase,

wherein the controller (527) is configured to supply the first AC current to the first LC circuit (510) during a second phase to decrease the temperature of the first portion of the susceptor arrangement (540) from the first operating temperature to a second operating temperature, and

wherein the controller (527) is configured to supply the first AC current with a frequency different from the first resonance frequency of the first LC circuit (510) during the second phase.

XXIII. Claim 1 of auxiliary requests I-0 and I-1 to I-11 is identical to claim 1 of the main request and claim 1 of auxiliary requests 1 to 11, respectively. Each of the auxiliary requests I-0 to I-10 differs from the corresponding request on which it is based in that dependent claims 5 and 6 have been deleted. Auxiliary request I-11 differs from auxiliary request 11 in that dependent claims 2 and 3 have been deleted.

XXIV. Claim 1 of each of auxiliary requests II-0 and II-1 to II-10 is identical to claim 1 of the main request and claim 1 of auxiliary requests 1 to 10, respectively. Each of auxiliary requests II-0 to II-10 differs from the request on which it is based in that dependent claims 1 to 6 have been deleted.

Reasons for the Decision

Main Request (Patent as granted) - Claim 1 - Novelty

1. D1 discloses an aerosol-generating device with a tubular susceptor 202, comprising a cavity having a proximal end, and a distal end opposite the proximal end (figures 2,3,5), wherein the proximal end of the device cavity (figures 2,3,5, left) is substantially open for receiving an aerosol generating article (page 6, lines 17-20).

2. The device of D1 further comprises an inductive heating arrangement (103) configured to heat an aerosol-forming substrate (page 6, lines 17-20).
3. The inductive heating arrangement (103) comprises a susceptor arrangement (200) that is heatable by penetration with a varying magnetic field to heat the aerosol-forming substrate (page 4, line 19 - page 5, line 4).
4. This is achieved with a first LC circuit (302) with a first inductor coil (204) arranged towards the proximal end of the device cavity and a first capacitor (306) and a second LC circuit with a second LC circuit (304), comprising a second inductor coil (206) arranged towards the distal end of the device cavity (right side in figures) and a second capacitor (310). The first LC circuit (302) has a first resonant frequency (page 12, lines 7-9). The second inductor coil (206) has a different number of turns than the first inductor coil (page 18, line 28 - page 19, line 4).
5. The reference in the last mentioned passage of D1 to coils with different number of turns is, as such, insufficient to establish that the two LC circuits have different resonant frequencies, as defined in claim 1. The resonant frequency of an LC circuit is not exclusively defined by the number of turns of the coil it comprises, but also depends on other parameters of this coil, such as its size or material, that are not specified in D1. Consequently, D1 does not disclose feature 1.3 of granted claim 1.
6. Additionally, the heating sequence disclosed on page 6, lines 12-14 of D1, is also not sufficient to anticipate

feature 1.5 either. This is because the exact order of activation of the coils, in the case of their alternating activation, is not specified. It is thus not possible to assess with certainty the existence of a disclosed sequence starting with the activation of the proximal portion of the housing, which is then not directly and unambiguously disclosed.

7. The subject-matter of claim 1 is thus novel over D1 (Article 54 EPC).

Main Request - Claim 1 - Inventive step

8. Document D1 constitutes a suitable item of prior art for assessing inventive step. It belongs to the technical field of the invention and shares a plurality of technical features with the claimed invention. Concretely, it discloses an aerosol-generating device comprising features 1.1, 1.2 and 1.4 of the claimed device.
9. In the proprietor's view, features 1.3 and 1.5 synergistically interact to preserve the distal portion of the aerosol-forming substrate. Both features and their combined effects for the user are to be understood in conjunction with features 1.2.1 and 1.2.2, which define the positions of the first and second inductor coils arranged at the proximal and distal ends of the device's cavity, respectively. The heating sequence defined in feature 1.5 causes the aerosol to be released first from the proximal portion of the housing and to flow toward the user without interacting with the portion of substrate present in the distal portion, so that the latter is preserved during the first part of the driving sequence. The

statement in feature 1.3 that the first and second LC circuits have different resonant frequencies must be interpreted in this context. This prevents the co-activation of the second LC circuit, which would occur if they shared a common resonant frequency, thus further contributing to preserving the distal portion of the substrate. While each measure may exert an effect in this regard, both measures combined contributed to the preservation of the distal portion of the substrate while also improving the user's experience, when the device was used with different substrates present in the different device cavities.

10. The applicant's arguments did not persuade the Board that any synergy resulted from the combination of features 1.3 and 1.5.
11. It is not disputed that features 1.3 and 1.5 interact. It is also undisputed that having LC circuits with different resonant frequencies, as defined in feature 1.3, attenuates co-activation effects on the LC circuit that is not active which would be present if the two circuits resonated at the same frequency. The provision of two LC circuits with two different resonant frequencies, does not extend, however, beyond a mere contribution to a selective activation as defined in feature 1.5. Feature 1.3, in itself, cannot be recognised as contributing to the preservation of the distal substrate portion, contrary to what was argued by the proprietor. Such an effect is only achieved through the activation sequence, defined in feature 1.5, as starting with the proximal portion.
12. In the absence of a definition in the claim of a first and a second (different) aerosol-forming substrate in the different portions of the device cavity, the

proprietor's arguments regarding the user's experience varying with each puff of the aerosol generating system (paragraph [0210] of the original disclosure), can also not be followed.

13. It follows, in the absence of synergy between both missing features in D1, that the objective technical problem to be solved by the invention is twofold and consists in providing a rapid and uniform aerosol delivery (feature 1.5) and in designing a configuration of the LC circuits that enables the selective activation of the LC circuits (feature 1.3).
14. D6 belongs to the field of the invention. Its content would have been considered by the skilled person when seeking a solution to the problem of rapid and uniform delivery of aerosol to the user.
15. D6 discloses a delivery mode in which the aerosol is generated, first, in the first portion of the cavity and the temperature gradually increased in the second portion, thereby enabling a steady delivery of aerosol to the user (page 3, lines 5-9, page 12, line 27 - page 3, line 2). It would have been clear to a person skilled in the art that the teaching of D6 could have been implemented in a straightforward manner in the system of D1.
16. The introduction of feature 1.5 in the device of D1 results thus in a straightforward manner from the adaptation of the device disclosed therein in the light of D6.
17. The implementation of this measure, which regards the sequence of activation of the different cavity portions, in D1, leads the skilled person to consider

how the heating coils and their associated LC circuits need to be conceived for a selective activation of the coils.

18. The statement in D1, that the two coils can have a different number of turns, would already hint towards a configuration with different resonant frequencies. In the absence of indication in D1 that the two frequencies need to be identical, there is no incentive for a skilled person implementing the embodiment of D1, with its two coils with their different numbers of turns, to adjust the other properties of the coils, or the capacitors, to achieve the same resonant frequencies. On the contrary, the indication in D1 (page 18, line 28 - page 19, line 4) underlines that it was an aspect of the system disclosed in D1 to have a first and second inductor coils with two or more different characteristics. This statement is meaningful in the context of D1, only if these different characteristics have different effects on the behaviour of the associated resonant circuits. Consequently, the skilled person would simply follow the instruction of D1 and select a different number of turns for the two coils, thereby arriving at two different resonant frequencies, thus effectively enabling selective activation of the cavity portions.
19. The skilled person would furthermore have recognised that such configuration was suitable for selective activation of the different portions of the heating arrangement disclosed in D1.
20. It follows that the subject-matter of claim 1 of the main request is not inventive in view of D1, in combination with D6 (article 56 EPC).

Auxiliary requests 1 to 11 - Consideration

21. Auxiliary requests 1 to 11 are "carry over" requests, i.e., requests that were submitted in opposition proceedings but not decided upon by the Opposition Division.
22. The Board considers that these requests were admissibly submitted during opposition proceedings and thus form part of the appeal proceedings (Article 12(2) RPBA).
23. The proprietor's indication during opposition proceedings that requests of the I-series, filed one day before the oral proceedings before the Opposition division, were to be treated before these requests (proprietor's letter dated 17 October 2023), does not affect the present finding.

Auxiliary request 1 to 10 - Claim 1 - Inventive step

24. Claim 1 of auxiliary request 1 further defines that the aerosol-generating article comprises an aerosol-forming substrate. Claim 1 of auxiliary request 2 further defines that *an inner surface of the susceptor arrangement forms an inner surface of the device cavity*.
25. Both features are known from D1 (page 3, lines 1-8; lines 22-28; page 4, lines 14-18; respectively page 6, line 28 - page 7, line 2).
26. Claim 1 of auxiliary request 3 adds to claim 1 of auxiliary request 1 the definition that *the susceptor arrangement is an external heating element configured*

to heat an outer surface of the aerosol forming substrate. Claim 1 of auxiliary request 4 further adds that the susceptor arrangement has a unitary structure, and claim 1 of auxiliary request 5 that the susceptor arrangement is a tubular susceptor arrangement.

27. Also these feature are known from the configuration disclosed in D1 (page 4, lines 22 to page 5, line 27, figures 2, 3 and 5).
28. Claim 1 of auxiliary request 6 combines the amendments introduced in claim 1 of auxiliary requests 2 and 5. Claim 1 of auxiliary Request 7 combines the amendments introduced in claim 1 of auxiliary requests 2, 3, 4 and 5.
29. It follows that the subject-matter of claim 1 of auxiliary requests 1, 2, 3, 4, 5, 6 and 7 is not inventive in view of D1, in combination with D6, for the same reasons as indicated above for claim 1 of the main request (article 56 EPC).
30. Claim 1 of Auxiliary Request 8 defines the subject-matter of granted claim 12. Specifically, claim 1 of auxiliary request 8 defines an aerosol-generating system comprising an aerosol-generating device and an aerosol-generating article comprising an aerosol-forming substrate. The aerosol-generating device corresponds to the subject-matter of granted claim 1.
31. It is the primary purpose of the system disclosed in D1 to use it with smokable material i.e. in combination with an aerosol generating article (D1, page 3, lines 22-24; page 6, line 28 - page 7, line 2).

32. Consequently, also claim 1 of auxiliary request 8 lacks an inventive step in view of the combination of the teaching of D1 with that of D6.
33. Claim 1 of auxiliary request 8a further specifies, with regard to claim 1 of auxiliary request 8, that the aerosol-forming substrate is a solid aerosol-forming substrate. Also this limitation is known from D1 (page 3, lines 6, 7).
34. Claim 1 of each of auxiliary request 8b, 8c, 8d, 8e, 8f and 8g combines the amendments made in claim 1 of auxiliary request 8 with those made in claim 1 of each of auxiliary request 2, 3, 4, 5, 6 and 7, respectively.
35. It follows that also the subject-matter of claim 1 of auxiliary requests 8a, 8b, 8c, 8d, 8e, 8f and 8g is not inventive in view of D1, in combination with D6 (article 56 EPC).
36. Claim 1 of auxiliary Request 9 adds to claim 1 of auxiliary request 8 the limitations that the aerosol-generating article is *disposable* and that *a mouthpiece is provided as part of the aerosol-generating article*.
37. Disposable aerosol-generating articles are known from D1 (page 3, lines 14-18) so that the first limitation does not add to the distinguishing features identified above over D1.
38. As to the second limitation, in the proprietor's view, it contributes to preserving the distal portion of the substrate since the air is guided through the article and not through a mouthpiece which is part of the device, as is the case in D1. It is essential for the invention that the air flows through the article,

whereas it is, in contrast, an essential feature of the invention in D1 that the aerosol be heated in the heating chamber before being drawn by the user (page 4, lines 14-18). It is the position of the mouthpiece as part of the article which enables, in combination with features 1.3 and 1.5, a synergistic effect in terms of user experience. Moreover, it would be hindsight to amend the design of D1 so as to arrive at the claimed subject-matter. The system of D1, with a chamber larger than the article, would simply not work for mouthpieces which are part of the article. It would necessitate that the system, with a mouthpiece being part of the device, be completely re-designed to arrive at the claimed configuration.

39. The proprietor's arguments are not persuasive.
40. Regardless of the fact that the application is silent as to any synergistic effect between the feature of a mouthpiece being part of the article and features 1.3 and 1.5, the Board fails to recognise any such effect. This is because the aerosol/air flow through the mouthpiece has no influence on the activation of the various cavity portions. The fact that this flow is guided through the article has no effect on the consumption in the various substrate portions.
41. The Board agrees with the opponent that the feature of a mouthpiece being part of the article represents a known alternative in the field of aerosol delivery systems (D6, Figure 1; D9, Figure 1). The Board further notes that paragraphs [0135] and [0136] of the patent present the two variants - with a mouthpiece part as part of the housing or as part of the article - as equal alternatives.

42. Although the recited configuration with a mouthpiece being part of the article differs from the design disclosed in D1, with its heating chamber, the Board is of the opinion that such a redesign of the system of D1 would not constitute in itself, an obstacle to change the set-up disclosed therein. The incentive for doing this arises simply from common knowledge according to which products of this type, associating mouthpiece and article, were equally well-known in this field. This applies irrespective of the various prior art documents cited by the opponent. It would then have been obvious for a person skilled in the art to adapt the features of the design disclosed in D1, insofar as they do not form part of the core teaching set out in claim 1 of this document.
43. Consequently, also subject-matter of claim 1 of auxiliary requests 9 is not inventive in view of the combination of the teaching of documents D1 and D6 and common general knowledge.
44. Claim 1 of auxiliary request 9a adds to claim 1 of auxiliary request 9, the limitation that was added to claim 1 of auxiliary request 8a that the aerosol-forming substrate is a solid aerosol-forming substrate. Claim 1 of auxiliary requests 9b, 9c, 9d, 9e, 9f and 9g adds to claim 1 of auxiliary request 9 the limitations that were added to claim 1 of auxiliary requests 2 to 7, respectively.
45. Since, as indicated above, concerning auxiliary requests 2 to 7 and 8a, those limitations were also known from D1, claim 1 of auxiliary requests 9a, 9b, 9c, 9d, 9e, 9f and 9g is also not inventive in view of D1, in combination with D6 (Article 56 EPC).

46. Claim 1 of auxiliary request 10 adds to claim 1 of auxiliary request 8 the limitation of *a filter plug located at a proximal end of the aerosol-generating article, wherein the filter plug forms a mouthpiece of the aerosol-generating system on which a user draws to receive aerosol generated by the system.*
47. This feature defines an additional difference with regard to the disclosure of D1.
48. No synergetic effect can however be recognised as resulting from its combination with the other features.
49. The use of filter material with aerosol-generating articles is well-known in the art. The skilled person, seeking a solution to the problem of unwanted substances spreading through the device, would have recognised the merits of well-known articles with associated filter plugs, and would have adapted the structure of D1 accordingly.
50. For the reasons set out above in connection with claim 1 of auxiliary request 9, the Board sees no obstacle to the adaptation of the system disclosed therein to well-known products that combine filter plugs with aerosol generating articles, provided that these do not impair the core teaching of D1, as reflected by its claim 1.
51. It follows that claim 1 of auxiliary request 10 is also not inventive in view of D1, in combination with D6 (Article 56 EPC).
52. Claim 1 of auxiliary request 10a adds to claim 1 of auxiliary request 10 the limitation that was added to claim 1 of auxiliary request 8a. Claim 1 of auxiliary requests 10b, 10c, 10d, 10e, 10f and 10g add in claim 1

of auxiliary request 10 the limitations added in claim 1 of auxiliary requests 2 to 7. As already indicated, all these limitations, were known from D1.

53. Consequently, also claim 1 of auxiliary requests 10a, 10b, 10c, 10d, 10e, 10f and 10g is not inventive in view of D1, in combination with D6 (Article 56 EPC).

Auxiliary request 11 - Added subject-matter

54. Claim 1 of auxiliary request 11 adds to granted claim 1 the features of original claims 2, 3 and 4. Original claim 1 did not, however, incorporate feature 1.5. of granted claim 1.
55. The opponent argued, inter alia, that the features of original claims 2 to 4 had not been originally disclosed in combination with feature 1.5.
56. The Board agrees. The *AC currents* referred to in original (and granted) claims 2 to 4 are more specific than the *varying currents* referred to in feature 1.5. of granted claim 1. This is confirmed by the description, in which the term "varying current" is repeatedly followed by the mention "preferably an AC current" (see section stretching from page 26, line 33 to page 40, line 6 of the description), thus distinguishing between the two types of currents.
57. In the absence of an indication in the claim that the *varying currents* initially referred to in feature 1.5 are the *AC currents* referred to in other parts of the claim, the claim encompasses a controller that is configured to control not only a first and second varying currents but also a first and second AC

current, for which there is no basis in the original application.

58. The subject-matter of claim 1 of auxiliary request 11 defines thus added subject-matter contrary to Article 100(c) EPC (Article 123(2) EPC).

Auxiliary request 0-I to 11-I and 0-II to 10-II

59. The auxiliary requests of the I and II series differ from the corresponding requests of the main series, respectively, in that dependent claims have been deleted. Claim 1 of each request of these two series is identical to claim 1 of the corresponding request of the main series.
60. The auxiliary requests of the I-series were filed during opposition proceedings. The opposition decided not to admit them, for the reason that they had been filed very late, just one day before the oral proceedings (item 2.1 of the contested decision).
61. The Board notes, however, that these requests were filed in reaction to late objections by the opponent raised just five days before the oral proceedings. The impugned decision further reveals that those objections were admitted and considered by the Opposition Division (see decision, points 4.1.1 and 4.2.2).
62. Consequently, the Opposition Division's decision not to admit them, while admitting the new objections raised by the opponent, was unbalanced. For these reasons, the Board reversed it and admitted auxiliary requests 0-I to 11-I into the proceedings.

63. The auxiliary requests of the II-series were filed in reaction to a new objection of added subject-matter, raised against dependent claim 2 of the patent for the first time in the statement of grounds of appeal of the opponent. Therefore, the Board decided to consider also the auxiliary requests 0-II to 10-II.
64. The fact that claim 1 of each of these requests is identical to claim 1 of the corresponding request of the main series also means, however, that each of these requests is not allowable, for the same reasons as indicated above for the corresponding request of the main series.

Conclusion

65. In view of the above, none of the requests of the proprietor is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairwoman:



D. Meyfarth

A. Medeiros Gaspar

Decision electronically authenticated