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**Datasheet for the decision
of 30 November 2023**

Case Number: T 0938/22 - 3.2.01

Application Number: 16729350.5

Publication Number: 3313212

IPC: A24F47/00

Language of the proceedings: EN

Title of invention:
ELECTRONIC AEROSOL PROVISION SYSTEMS

Patent Proprietor:
Nicoventures Trading Limited

Opponent:
Philip Morris Products S.A.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 54(3), 56

Keyword:
Amendments - allowable (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0938/22 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 30 November 2023

Appellant: Nicoventures Trading Limited
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
11 February 2022 concerning maintenance of the
European Patent No. 3313212 in amended form.**

Composition of the Board:

Chairman G. Pricolo
Members: S. Mangin
S. Fernández de Córdoba

Summary of Facts and Submissions

- I. The appeals were filed by the appellant (proprietor) and the appellant (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 1, the patent in suit (hereinafter "the patent") met the requirements of the EPC.
- II. The opposition held for the main request that:
- claims 1, 14 and 15 did not extend beyond the content of the application as filed,
 - the invention was sufficiently disclosed,
 - the subject-matter of claim 1 was not novel over D1 (WO 2015/177046, prior art under Article 54(3) EPC).
- III. Oral proceedings were held before the Board on 30 November 2023.
- IV. The appellant 1 (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The appellant 2 (patent proprietor) requested that the patent be maintained in amended form on the basis of the eighth auxiliary request filed on 12 August 2021.

- V. Independent claim 1 of the eight auxiliary request (with the feature numbering used in the appealed decision and complemented by the Board) reads as follows:

a) An aerosol provision system (300) for generating an aerosol from a source liquid (504, 524, 534), the aerosol provision system comprising:

- b) a reservoir (502, 512, 522, 532) of source liquid;
- c) a planar vaporiser (505, 515, 525, 535A) comprising
 - c1) a planar heating element (506, 516, 526, 536A), wherein the vaporiser is configured to draw source liquid from the reservoir to the vicinity of a vaporising surface of the vaporiser through capillary action; and
 - d) an induction heater coil (306)
 - d1) operable to induce current flow in the heating element to inductively heat the heating element and so vaporise a portion of the source liquid in the vicinity of the vaporising surface of the vaporiser,
 - d2) wherein magnetic fields generated by the induction heater coil in use in at least a region of the planar heating element are generally perpendicular to the plane of the planar heating element
 - d3) wherein the vaporiser and/or the heating element comprising the vaporiser is in the form of a planar annulus

Independent claims 13 and 14 of the eight auxiliary request (with the numbering "d3" for the last feature corresponding to the last feature of claim 1) read as follows:

13. A cartridge (500, 510, 520, 530) for use in an aerosol provision system (300) for generating an aerosol from a source liquid (504, 524, 534), the cartridge comprising:
- a reservoir (502, 512, 522, 532) of source liquid;
 - a planar vaporiser (505, 515, 525, 535A) comprising a planar heating element (506, 516, 526, 536A), wherein the vaporiser is configured to draw source liquid from the reservoir to the vicinity of a vaporising surface of the vaporiser through capillary action, and

wherein the planar heating element is susceptible to induced current flow from an induction heater coil (306) of the aerosol provision system to inductively heat the heating element and so vaporise a portion of the source liquid in the vicinity of the vaporising surface of the vaporiser, wherein the planar heating element is oriented so that magnetic fields generated by the induction heater coil when the cartridge is in use in the aerosol provision system in at least a region of the planar heating element are generally perpendicular to the plane of the planar heating element,

(d3) wherein the vaporiser and / or the heating element comprising the vaporiser is in the form of a planar annulus.

14. A method of generating an aerosol from a source liquid (504, 524, 534), the method comprising: providing: a reservoir (502, 512, 522, 532) of source liquid and a planar vaporiser (505, 515, 525, 535A) comprising a planar heating element (506, 516, 526, 536A), wherein the vaporiser draws source liquid from the reservoir to the vicinity of a vaporising surface of the vaporiser by capillary action; and driving an induction heater coil (306) to induce current flow in the heating element to inductively heat the heating element and so vaporise a portion of the source liquid in the vicinity of the vaporising surface of the vaporiser by generating magnetic fields in at least a region of the planar heating element that are generally perpendicular to the plane of the planar heating element,

(d3) wherein the vaporiser and / or the heating element comprising the vaporiser is in the form of a planar annulus.

VI. For the eight auxiliary request, in the oral proceedings the parties referred to their submissions in writing.

VII. The following further documents are referred in the decision:

D3: WO 2015/131058 A1

D4: CN 104382238 A

Reasons for the Decision

1. Eighth auxiliary request - Added subject-matter - Article 123(2) EPC

The subject-matter of independent claims 1, 13 and 14 does not extend beyond the content of the application as filed.

1.1 According to the appellant 1 (opponent), independent claims 1, 13 and 14 extended beyond the content of the application as originally filed for the following reasons:

1.1.1 There was no basis for the introduction of feature (d3) in independent claims 13 and 14 as the added feature (d3) came from claim 12 as granted (claim 13 as filed) that was only dependent on claim 1 and was not dependent on independent claims 14 or 15 (independent claims 19 and 21 as filed). There were also no statements of invention which corresponded to the language of claim 12.

1.1.2 Furthermore, the introduction of the feature (d2) in claim 1 in isolation from other requirements led to an unallowable intermediate generalisation.

Feature (d2) was disclosed on page 25, lines 12-15 in relation with figure 8. Figure 8 showed the heating element 310 embedded in surrounding wicking matrix (see page 19, lines 9-11 of the application). Moreover, the heating element 310 and part of the reservoir 312 were located within the drive coil 306. Indeed, the system 300 of figure 8 required a cartridge 304 (having the heating element 310 and reservoir 312) which was received in a recess of a control unit 302 (see Fig. 8 and page 19, lines 31-35). There was also a mouthpiece 308 required in the figure 8 example. All of these features were however, impermissibly absent from claim 1.

Feature (d2) was also disclosed on page 23, lines 13-18 in relation with figures 10A and 10B. The embodiment of figures 10A and 10B required first and second regions of the heating element 340 having different inclinations. However this feature was not introduced into claim 1.

The same issues existed with each of the figures of the application:

-The embodiments of figures 1-6 had homogeneous heating elements at a specific location, feature omitted in claim 1.

-The embodiments of figures 8-12A required the heating element 310 to have regions of different susceptibility, feature omitted in claim 1.

The same reasoning applied to the other independent claims.

1.2 The Board does not agree with appellant 1 (opponent). The amendments made to claims 1, 14 and 15 remain within the limits of what a skilled person would derive

directly and unambiguously, using common general knowledge, from the whole of the application as filed.

- 1.2.1 As argued by the appellant 1 (opponent), feature (d3) corresponds to claim 13 as filed, which only depends on claims 1-12 as filed and not on independent claims 19 and 21 as filed. However, as rightly pointed out by the appellant 2 (proprietor), claim 14 resulting from the combination of independent claims 20 and 13 as filed and claim 15 resulting from the combination of independent claims 21 and 13 as filed does not contravene Article 123(2) EPC in view of the patent specification as a whole. The three independent claims regard different aspect of the same invention, namely the "aerosol provision system for generating an aerosol from a source liquid", the "cartridge for use in an aerosol generating system for generating an aerosol from a source liquid" and the "method of generating an aerosol from a source liquid", respectively. The specific form of the vaporiser and/or the heating element directly and unambiguously applies for each of the above mentioned aspects of the invention.
- 1.2.2 Furthermore, feature (d2) of claim 1 does not present the skilled person with new technical information. While feature (d2) is literally disclosed on page 23, lines 5-23 in relation with figures 10B and 10A and on page 25, lines 12-15 in relation with figure 8, it is present in all of the embodiments of the figures of the application as filed. Indeed in all the figures, the position and the orientation of the induction heater coil with regard to the planar susceptor is such that *"magnetic fields generated by the induction heater coil in use in at least a region of the planar heating element are generally perpendicular to the plane of the planar heating element"*. The added feature is not

inextricably linked to the specific features of any of the embodiments of the figures cited by the appellant 1 (opponent).

2. Novelty over D3, prior art under Article 54(3) EPC

The subject-matter of claim 1 is novel over D3.

2.1 The appellant 1 (opponent) was of the opinion that the subject-matter of claim 1 lacked novelty over the embodiment of figures 10A and 10B of D3. In their view, the first layer 28a of the wick of the vaporiser visible on figure 10A had the form of a planar annulus.

2.2 The Board agrees that figure 10A discloses the first layer 28a of the wick being in the form of a planar annulus. However, neither the second layer of the wick 28b nor the susceptor 14 (heating element) forming the vaporiser has the form of a planar annulus. This embodiment does not therefore anticipate feature d3 requiring that *"the vaporiser and/or the heating element comprising the vaporiser is in the form of a planar annulus"*.

3. Inventive step starting from D4 - Article 56 EPC

The subject-matter of claim 1 involves an inventive step starting from D4.

3.1 The appellant 1 (opponent) was of the opinion that the guide 40 of figure 2 of D4 could optionally have a through hole 41 (see paragraph [0050]). Accordingly, such a guide would be in the form of a planar annulus.

3.2 The Board does not agree. While in the embodiment of figure 2 the guide 40 may have a through hole 41, the metal heating element 60 does not have a through hole.

Therefore, the subject-matter of claim 1 differs from the embodiment of figure 2 of D4 by feature (d3):
"the vaporiser and/or the heating element comprising the vaporiser is in the form of a planar annulus".

Appellant 1 (opponent) has not submitted any reason why the skilled person would change the heating element 60 in the embodiment of figure 2 to an annulus heating element.

As argued by appellant 2 (proprietor), the skilled person has no incentive to change the form of the heating element to an annulus in the embodiment of figure 2 in D4, as liquid would then leak out of the reservoir.

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 in amended form with claims 1 to 14 according to the eighth auxiliary request filed on 12 August 2021 and a description to be adapted thereto.

The Registrar:

The Chairman:



A. Voyé

G. Pricolo

Decision electronically authenticated