Unified Patent Court Einheitliches Patentgericht Juridiction unifiée du brevet Central Division Paris Seat

DECISION of the Court of First Instance of the Unified Patent Court Central division - Paris seat issued on 22 January 2025 in the revocation action No. ACT_571730/2023 UPC_CFI_310/2023

- HEADNOTES: Defendant's alternative request to maintain the patent at suit with respect to one or more of its dependent claims is a sufficiently clear request, even if it does not specify a particular claim, and, as such, imposes on the Court the obligation to rule on the matter and decide which claims, if any, remain valid.
- KEYWORDS: common general knowledge, late filed documents, validity of the patent

CLAIMANT:

NJOY Netherlands B.V. Westerdoksdjik 423, 1013BX Amsterdam, Netherlands

Represented by Attorney-at-law Hon.-Prof. Dr. Henrik Holzapfel, McDermott Will & Emery, Stadttor 1, 40219 Düsseldorf, Germany assisted by Laura Woll, Diana Pisani, Lisa Nassi of McDermott Will & Emery co-represented by Mathias Karlhuber, Cohausz & Florack

DEFENDANT:

VMR Products LLC, 560 20th Street, California 94107, San Francisco, United States of America

Represented by Bernhard Thum, Thum & Partner | Thum, Mötsch, Weickert Patentanwälte PartG mbB, Siebertstr. 6, 81675 Munich, Germany assisted by Jonas Weickert and Andreas Mötsch, Thum & Partner co-represented by Tobias Wuttke, Bardehle Pagenberg Partnerschaft mbB

PATENT AT ISSUE

European patent **EP 3 613 453 B1**, hereafter referred to as "EP '453" or as "the Patent".

DECIDING JUDGES

Panel 2 of the Central Division (Paris Seat)

Paolo Catallozzi	Presiding judge
Tatyana Zhilova	Legally qualified judge and judge-rapporteur
Max Tilmann	Technically qualified judge

DATE OF THE ORAL HEARING

3. December 2024

LANGUAGE OF THE PROCEEDINGS

English

SUMMARY OF FACTS AND PARTIES' REQUESTS

- On 15. September 2023 NJOY Netherlands B.V. filed a revocation action against VMR Products LLC concerning the patent at issue (EP '453) before this Central Division Paris, registered as No. ACT_571730/2023, UPC_CFI_310/2023. The Defendant is the registered proprietor of the patent at issue.
- 2. The parties are competitors in the market for electronic vapour products. Claimant NJOY Netherlands B.V. is a subsidiary of a company incorporated under the laws of the State of Delaware (USA), and belongs to the Altria Group, Inc, incorporated under the laws of the State of Virginia (USA). Defendant VMR Products LLC is a subsidiary of Juul Labs, Inc, a corporation organized under the laws of the State of Delaware (USA).
- 3. EP '453 was filed on 1. October 2019 as European patent application no.19200710.2, as a divisional application of European patent application no.18201373.0, which, in turn, is a divisional application of European patent application no. 14159709.6, and claimed priority from US Provisional Patent Applications nos.61/903,344 (filed on 12 November 2013) and 61/937,851 (filed on 10 February 2014). The European Patent Office published mention of the grant of the Patent on 8. September 2021. According

to the Claimant and undisputed by the Defendant, EP '453 at the time of filing the statement of claim was in effect in the following contracting member states of the UPCA: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Latvia, Luxembourg, Netherlands, Portugal and Sweden.

No opt-out from the exclusive jurisdiction of the UPC had been declared.

Opposition proceedings are pending before the European Patent Office for the patent at suit filed by a third party.

- 4. The Claimant challenges the validity of the patent on the grounds of lack of inventive step. The Defendant contests the alleged grounds for revocation. In the alternative, if the Court finds that there is a lack of inventive step, the Defendant submits 40 auxiliary requests to amend the patent to overcome the lack of inventive step.
- 5. The written procedure was closed on 13. June 2024.
- 6. The interim conference was held on 2. July 2024.
- 7. By an application, filed in the furtherance to the interim conference, registered as App_44398/2024, the Defendant reduced the number of auxiliary requests to 8 (AR I to AR VIII). Auxiliary Request I and Auxiliary Request II are as well newly filed according to Rule 30.2 'RoP' with "Application to amend Subsequent Request to amend the patent", registered as App_44394/2024. Auxiliary Request I includes the claim set that was maintained during the opposition proceedings before the EPO in first instance. Auxiliary Request II is based on Auxiliary Request I.
- 8. The Claimant requests the following decision in merit:

(1) European patent '453 to be revoked entirely with effect for the territories of Austria, Belgium, Denmark, Finland, France, Germany, Italy, Latvia, Luxembourg, Netherlands, Portugal and Sweden.

(2) The Defendant's alternative requests to maintain the patent based on any of Defendant's proposed amendments of the claims of the patent (selected set of Auxiliary Requests I to VIII) to be dismissed.

(3) Defendant to be ordered to bear the legal costs of the proceedings.

- 9. The Defendant requests the following decision in merit.
 - (1) The revocation action be dismissed;
 - (2) The Patent be maintained:
 - a) as granted;

b) in the alternative based on one of the proposed amendments of the claims of the Patent (selected set of Auxiliary Requests I to VIII);

c) further in the alternative in parts based on the independent validity of one or more of its dependent claims in combination with independent claim 1 as granted; and

d) yet further in the alternative in parts based on the independent validity of one or more of its dependent claims as granted in combination with claim 1 of the proposed amendments of the claims of the Patent (selected set of Auxiliary Requests I to VIII);

- (3) The Claimant be ordered to bear the costs of the proceedings.
- 10. By Order of the judge-rapporteur and the technically qualified judge, issued on 9. September 2024, the value of the proceedings was set for the purpose of applying the scale of ceilings for recoverable for this case to be more than EUR 250.000 and less than EUR 500.001,00.
- 11. Finally, the oral hearing was held in present on 3. December 2024 at the Court premises.

GROUNDS FOR THE DECISION

A. Procedural issues

I. Late filed facts and evidence

- 12. In the Reply to Defence to revocation and Defence to the Application to amend the patent, lodged on 6. February 2024, the Claimant develops further arguments for the alleged lack of the inventive step based on newly filed documents (Exhibits MWE 21- MWE 48) and makes a procedural request, that the Court admit these exhibits into the proceedings.
- 13. Defendant requests documents MWE 21 to MWE 48 not be admitted into the proceedings; Claimant requests to dismiss Defendant's request.
- 14. As a rule, the parties are obliged to present their complete case as early as possible (Preamble to the 'RoP', para. 7, last sentence).
- 15. Rule 44 'RoP' states that the statement for revocation shall contain "... (e) one or more grounds for revocation, which shall as far as possible be supported by arguments of law, and where appropriate an explanation of the claimant's proposed claim construction; (f) an indication of the facts relied on; (g) the evidence relied on, where available, and an indication of any further evidence which will be offered in support ...".

or

- 16. Similar requirements are set for the content of the statement of claim in the infringement proceedings. Rule 13 'RoP' provides that this written pleading shall contain "an indication of the facts relied on" [lett. (I)], "the evidence relied on" [lett. (m)] and "the reasons why the facts relied on constitute an infringement of the patent claims, including arguments of law and where appropriate an explanation of the proposed claim interpretation" [lett. (n)].
- 17. However, those provisions must also be interpreted in the light of the principle of proportionality, as set out in the Preamble of the 'RoP', which requires that the parties should not be burdened with tasks that are unnecessary to achieve the stated objective. In this regard, it must be noted that Rule 44 'RoP' requires an "indication" of the facts relied on and this seems to support an interpretation of the relevant provisions contrary to an overly strict application of the 'front loaded' procedural system.
- 18. Furthermore, account must also be taken of the need, which is served by the principle of procedural efficiency, to avoid excessive and overly detailed allegations of fact and the production of multiple documents in relation to matters that can be presumed to be known to the opposing party and not to be disputed by them, provided that their allegation and evidence is preserved if challenged, thus considering the natural course of procedural dynamics.
- 19. Moreover, excessive and redundant allegations of facts and production of documents may also hinder the effective exercise of the effective exercise of the right of defence, imposing on the opposing party a burden of studying the appeal and the evidence presented, and hindering the efficient functioning of the judicial response, by overburdening the Court with unnecessary activities.
- 20. Additionally, it can be argued that a document may be introduced into the proceedings at a later stage if it was created or became available to the party during the proceedings, given the principle of fairness which protects a party that has acted in a diligent way.
- 21. It may therefore be concluded that, the claimant in revocation actions is required to specify in detail the grounds of invalidity that allegedly affect the contested patent, as well as the prior art documents relied upon to support any allegation of lack of novelty or inventive step. This defines the subject matter of the dispute and enables the defendant to understand the allegations made against it and to prepare an adequate defence, as well as allowing the Court to determine the scope of its jurisdiction in relation to the claim.
- 22. Consequently, the claimant cannot introduce new grounds of invalidity of the attacked patent or introduce new documents considered novelty destroying or affecting inventive step in subsequent written acts. This would result in a broadening or, in any case, a modification of the subject matter of the dispute, constituting an amendment of the case and falling within the scope of Rule 263 'RoP', which may only be permitted by the Court

upon specific request and after it has been shown that the requirements of that Rule have been met.

- 23. Similarly, the claimant must specify in the statement of claim the facts that it considers necessary to prove in order to succeed in its claim, together with the relevant evidence.
- 24. However, it should be noted that in certain situations, following the defence raised by the defendant, the claimant may need to allege new facts, insofar as they are considered capable of supporting the main facts already timely alleged and disputed by the defendant. In this case, the need to respond to the defendant's defence, the terms of which cannot be foreseen ex ante by the claimant, justifies the introduction of such new facts in the reply to defence to revocation.
- 25. Likewise, the need to produce new evidence may arise from the defendant's defence which disputes the facts alleged by the claimant or the probative value of the evidence already filed in Court.
- 26. This is consistent with the principles set by the Court of Appeal (decision issued on 21 November 2024, UPC_CoA_456/2024) according to which while the parties are required to set out their case as early as possible in the proceedings nevertheless specific new arguments may be admitted into the proceedings in consideration of specific circumstances of the case.
- 27. Applying these principles to the present case, it must be concluded that the documents introduced by the Claimant in the Reply to defence to revocation consisting of the declaration released by set to in that statement are admissible, given that it contains arguments regarding the common general knowledge and the claim construction which are intended to contrast and react to the arguments raised by the Defendant in its Defence to revocation and set these late filed documents shall also extend to arguments that, while not constituting a direct response to the Defendant's arguments, are closely related to them.

II. Admissibility of the subsequent request to amend the patent

- 28. On 30. July 2024 the Defendant lodged a subsequent request to amend the patent in view of the outcome of the first instance opposition proceedings relating to EP'453 before the EPO (No. App_44394/2024).
- 29. On the same date, in response to order of the Court of 9. July 2024, the Defendant reduced the number of the auxiliary requests based on the set of auxiliary requests filed within the application to amend (No. App_44398/2024). Auxiliary Request I and Auxiliary Request II have been included in the set of the auxiliary requests to be supported at the oral hearing scheduled for 3. December 2024, and have been pursued as highest-ranking auxiliary requests, while the auxiliary requests previously filed are pushed back.

- 30. The Claimant objected to the subsequent requests to amend the patent, arguing that this motion is inadmissible at this stage of the proceedings and their admission would not be in line with the UPC's front-loaded system.
- 31. The Convention on the Grant of European Patents ('EPC') and the Agreement on the Unified Patent Court ('UPCA') allow third parties to challenge the validity of a patent in both opposition and revocation proceedings and allow them to initiate revocation proceedings while opposition proceedings relating to the same patent are pending. The mere fact that the revocation proceedings before the UPC relate to a patent which is also the subject of opposition proceedings before the EPO is not sufficient to allow an exception to the principle for the functioning of the Court (see CoA, Order issued on 28. May 2024, UPC_CoA_22/2024).
- 32. Aligning the defence of the patentee by presenting the same auxiliary requests to amend the patent in both parallel proceedings may be considered in the interest of the legal certainty. This Court notes that Rule 30 (2) 'RoP' is a strict rule of preclusion which only admits subsequent requests to amend the patent with the permission of the Court. When assessing whether a new amendment is permitted, the Court has to take into account, on one hand, the fact that a subsequent amend of a patent may lead to a more efficient proceedings, narrowing the subject matter and simplifying the procedural activities, and to a proper safeguard of the interest of the patent proprietor in controlling the scope of protection of its exclusive rights; on the other hand, the admission of subsequent requests to amend the patent may affect the purpose of delivering an expeditious decision, forcing an extension of the time of the written procedure in relation to the right of the other parties to arrange the consequent defence, and may undermine the right of defence of these latter parties (see Paris CD, order issued on 27 February 2024, UPC CFI 255/2023). In this regard, it is important to consider whether the new amendment would have been possible and necessary at an earlier point in time in response to the invalidity claimant's arguments and whether the late request for amendment causes delays in the proceedings (see Mannheim LD, order issued on 27 June 2024, UPC CFI 210/2023).
- 33. In the present case, the justification presented by the Defendant, why the amendments filed before the EPO, which are subsequently identified by Defendant as being of high priority, is not sufficient. The Defendant for the first time in the submission of 30. July 2024 indicated that it (now) wishes to coordinate its defence in both parallel proceedings. The Defendant had not indicated in the Defence to Revocation that the auxiliary requests filed at the time were filed with the aim to coordinate its defence in both parallel proceedings. The Court considers the reason provided with the submission of 30. July 2024 as a change of the strategy of the Defendant. For these reasons, the subsequent requests are inadmissible.

B. Issues on merit

I. Legal framework

- 34. The Court of Appeal of the UPC has laid down the following legal framework for the interpretation of patent claims (Order dated 26 February 2024, UPC_CoA_335/2023, p. 26-27 of the original German language version, also see Court of Appeal, order issued on 13 May 2024, UPC_CoA_1/2024).
- 35. In accordance with Art. 69 'EPC' and the Protocol on its interpretation, a patent claim is not only the starting point, but the decisive basis for determining the scope of protection of a European patent. The interpretation of a patent claim does not depend solely on the strict, literal meaning of the wording used. Rather, the description and the drawings must always be used as explanatory aids for the interpretation of the patent claim and not only to resolve any ambiguities in the patent claim. However, this does not mean that the patent claim merely serves as a guideline and that its subject-matter also extends to what, after examination of the patent proprietor seeks protection.
- 36. A feature in a patent claim is always to be interpreted in the light of the claim as a whole (see Court of Appeal, order issued on 13 May 2024, UPC_CoA_1/2024, point 29). From the function of the individual features in the context of the patent claim as a whole, it must be deduced which technical function these features actually have individually and as a whole. The description and the drawings may show that the patent specification defines terms independently and, in this respect, may represent a patent's own lexicon. Even if terms used in the patent deviate from general usage, it may therefore be that ultimately the meaning of the terms resulting from the patent specification is authoritative. In applying these principles, the aim is to combine adequate protection for the patent proprietor with sufficient legal certainty for third parties.
- 37. The relevant point in time for interpreting a patent claim for the assessment of validity is the filing (or priority) date of the application that led to the Patent.
- 38. The patent claim is to be interpreted and assessed from the point of view of a person skilled in the art.

II. The concept of person skilled in the art and the common general knowledge

- 39. The identification of the person skilled in the art and the common general knowledge ('CGK') can conveniently be done in one go.
- 40. The person skilled in the art (skilled person) is a legal fiction which, in the interests of legal certainty, forms a standardized basis for the assessment of the legal concepts of 'prior art', 'novelty, 'inventive step' and 'enablement'. The skilled person stands for the average expert who is typically active in the technical field of the invention, has had the usual prior training and has acquired average knowledge, skills and

practical experience for routine work, but does not have inventive imagination, thinking and skills. When interpreting a patent claim, the person skilled in the art does not apply a philological understanding but determines the technical meaning of the terms used with the aid of the description and the drawings.

- 41. Parties do not agree completely on the qualification of the skilled person.
 - i. The Claimant states that the relevant person skilled in the art, would possess at least a Bachelor's degree in mechanical engineering, or alternatively in electrical engineering, or in chemistry, or in physics, or in a related field, and over three years of relevant industry experience. This statement is supported also by
 - ii. To define the person skilled in the art the Defendant has submitted the Expert opinion by **Sector Sector** An average person skill in the art would have had a B.S. in mechanical engineering, electrical engineering, or an equivalent degree, and either at least two years of experience designing electro-mechanical consumer products or an advanced degree in mechanical engineering, electrical engineering, or an equivalent degree.
- 42. With regard to the interpretation of the claims, the following must be borne in mind: electronic inhalable aerosol devices or electronic vaping devices are consumer products. General tasks in designing electronic inhalable aerosol devices or electronic vaping devices relate to the outer physical shape and mechanical properties of the device; the materials to be used for the device; the inner physical shape of the device, also as regards fluid dynamics and thermodynamics. These tasks typically fall into the competence of a mechanical engineer and not so much into the competence of an electrical engineer, a chemist or a physicist. A further task in designing electronic inhalable aerosol devices or electronic vaping devices relates to the electrical circuitry implemented in these devices. This additional design task can either be performed by a mechanical engineer with some years of experience in the technical field of vaporizers or by way of forming a team between the mechanical engineer and an electrical engineer.
- 43. The Court considers that the person skilled in the art is a mechanical engineer with either a Bachelor's degree or a Master's degree in mechanical engineering and several years of experience in the technical field of electronic inhalable aerosol devices or electronic vaping devices, who may be assisted by an electrical engineer for issues that relate to the electrical circuitry implemented in electronic inhalable aerosol devices or electronic vaping devices that he himself cannot handle.
- 44. The 'CGK', in general, is information which has been commonly known to the skilled person from written sources or from practical experience in the relevant technical field. The 'CGK' includes knowledge which is directly available from familiar sources of information relating to the specific technical field at the prior date but is not to be

confused with publicly available knowledge, which may not be general and common. A familiar source of information typically is a source to which a skilled person regularly turns for guidance on standard design solutions that are generally applicable, such as standard textbooks, encyclopaedias, manuals, handbooks, dictionaries and databases which the skilled person knows and can use as a suitable and reliable source for the respective information in the respective technical field. A familiar source of information should not be confused however with all publicly available prior art documents.

45. In any case, the 'CGK' is subject of evidence. Pursuant to Art. 54 of the UPCA, the burden of proving the existence of the 'CGK' lies with the party invoking it. Without bearing the burden of proof, the opposing party may present evidence to establish the 'CGK', including evidence to the contrary.

III. Technical field and prior art discussed in the patent at suit

- 46. The patent relates to a vaporizer. According to [0001] of EP '453, the vaporizers that the patent pertains to may also be referred to as electronic cigarettes.
- 47. Electronic cigarettes have recently emerged as a new product for providing nicotine through a smokeless inhalation process. Typically, implementations consist of a power supply (typically a battery) and an atomizing device. In reusable electronic cigarettes the two items are separated into a battery and a cartomizer, to allow the disposal and replacement of a nicotine containing fluid cartomizer while preserving the more costly battery and associated circuitry (microcontroller, switch, indicating LED, etc.) for additional use. In disposable electronic cigarettes, the two items are combined to integrate the functions into one unit that is discarded after either the battery energy or the nicotine containing liquid is exhausted. ([0002] of EP '453).
- 48. The electronic cigarette liquid used to vaporize ingredients such as nicotine is generally a solution of propylene glycol (PG), vegetable glycerine (VG), or polyethylene glycol 400 (PEG400), as well as their mixtures to which a flavour and/or nicotine has been added. The solution is often sold in a bottle (for refilling by the user) or in disposable cartridges or cartomizers. Many different flavours are incorporated into these liquids, including those that resemble the taste of regular tobacco, menthol, vanilla, coffee, cola and/or various fruits. Various nicotine concentrations are also available, and nicotine-free solutions are also common. ([0003] of EP '453).
- 49. EP '453 describes as prior art EP 2 113 178 A to disclose an electrically heated smoking system comprising a shell, a replaceable mouthpiece, a liquid storage portion, a heating element and a capillary wick.

IV. The invention

- 50. Given this background, the patented device can be referred to the closed type of cigarettes consisting of two parts: a battery segment and a cartomizer, described in the Expert opinion by **Expert opinion** By the closed type of cigarettes, the e-liquid is provided in a sealed cartridge that would be disposed of and replaced when empty. Closed systems were targeted at mass market consumers and were designed to closely resemble a traditional tobacco cigarette in size and appearance.
- 51. The patent at issue contains 11 claims in which claim 1 is an independent claim and claims 2 to 11 are dependent on claim 1.
- 52. As suggested by the Claimant claim 1 of the patent at issue may be structured as follows:
 - (1.1) A vaporizer comprising
 - (1.2) a battery portion (100) comprising:

(1.2.1) a battery housing segment (102) proximate a first end (102A) of the battery portion, the battery housing segment housing a battery (110), and

(1.2.2) a cartomizer receiving segment (104) proximate a second end (104A) of the battery portion,

(1.2.3) a chamber (108) provided within at least a portion of the cartomizer receiving segment, wherein the chamber has an insertion end distal from the battery housing segment and a base end proximate to the battery housing segment,

(1.2.4) battery electrical contacts provided at the base end of the chamber;

(1.2.5) an outer shell (106) commonly shared by the battery housing segment (102) and the cartomizer receiving segment (104); and

(1.3) a cartomizer (200) configured for insertion into the distal insertion end of the chamber of the cartomizer receiving segment of the battery portion, the cartomizer comprising:

(1.3.1) a cartomizer body (208) configured to hold a vaporizable substance;

(1.3.2) a heating element (214) within the cartomizer body configured to heat the vaporizable substance;

(1.3.3) cartomizer electrical contacts on an exterior of the cartomizer,

(1.3.4) cartomizer electrical circuitry configured to direct an electrical current between the cartomizer electrical contacts and the heating element,

(1.3.5) a mouthpiece in fluid communication with the cartomizer body,

(1.3.6) wherein the mouthpiece extends from the insertion end of the chamber when the cartomizer body is inserted in the chamber,

- (1.4) wherein the battery electrical contacts are configured to contact the cartomizer electrical contacts when the cartomizer is inserted in the chamber,
- (1.5) wherein the heating element is configured to be activated by the electrical current and to heat the vaporizable substance,
- (1.6) wherein the vaporizer further comprises charging contacts (160) at or proximate to the first end (102A).
- 53. FIG. 14 from the patent (colours and annotation added by the panel) illustrates a front sectional view of an embodiment of an electronic cigarette comprising a battery portion (blue) and a cartomizer (orange) with a charger (green) attached.



54. Claim 1 of the patent in suit requires the following interpretation of some terms regarding its features:

Fig. 14

- 'vaporizer' means the whole device including battery segment, the chamber defined by the cartomizer receiving segment, the cartomizer and the mouthpiece;
- 'distal' means situated away from the centre of a body;
- 'proximate' means closely neighbouring, immediately adjacent, next, nearest in the space.
- 55. Several features need to be carefully examined as the parties debated about their interpretation and, in any case, relate to relevant aspect of the claimed invention.
- 56. Firstly, with regard to feature (1.3.3) that specifies that the cartomizer includes cartomizer electrical contacts provided on an exterior of the cartomizer, the skilled person understands this feature in conjunction with feature (1.2.4) that specifies the battery electrical contacts to be provided between at base end of the chamber and in conjunction with feature (1.4) that specifies that the battery electrical contacts are configured to contact the cartomizer electrical contacts when the cartomizer is inserted in the chamber. From this the skilled person understands that the requirement of feature (1.3.3) is a solution to enable the contact between the battery electrical contacts and the cartomizer electrical contacts when the cartomizer electrical contacts or the battery electrical contacts, nor a particular arrangement on an exterior of the cartomizer, any design of cartomizer electrical contacts on an exterior of the battery electrical contacts may provide the contact specified in feature (1.4) falls under the design rule of feature (1.3.3).
- 57. In further support of this conclusion, it may be noted that Figs. 2 and 11 of the patent at issue show that different designs for the cartomizer electrical contacts on an exterior of the cartomizer are possible. Fig. 2 (partially represented below, left) shows the cartomizer electrical contacts flush with a downward facing surface of the cartomizer, while Fig. 11 (below, right) shows the cartomizer electrical contacts to be bulge shaped and to protrude from a downward facing surface of the cartomizer. This shows that the term 'on the exterior' is not limited to those arrangements where the cartomizer electrical contacts were to be arranged flush with an exterior surface of the cartomizer.



58. Secondly, feature (1.3.5) specifies that the cartomizer includes a mouthpiece in fluid communication with the cartomizer body. The claim language does not disclose how the mouthpiece is technically realized and does not require the mouthpiece to be detachable from the cartomizer body.

59. The Claimant argues that the mouthpiece could only be seen to be a separate element to the cartomizer body, if the mouthpiece were detachable from the cartomizer body, but this argument does not convince. Indeed, the terms 'cartomizer body' and 'mouthpiece' must be understood with regard to the functions that they provide, which are, respectively, to be able to hold a vaporizable substance and to be insertable into the mouth of the user.

V. The inventive step attack

General remarks

- 60. The Claimant argues that the patent is not valid for the lack of inventive step, citing several prior art documents:
 - U.S. Patent Application Publication No. 2005/0268911 (hereinafter referred to as 'Cross'), published on 8 December 2005 (Exhibit MWE 6);
 - International Publication No. WO 2013/093695 (hereinafter referred to as 'Weigensberg'), published on 27 June 2013 (Exhibit MWE 7);
 - International Publication No. WO 2010/145805 (hereinafter referred to as 'Trescher'), published on 23 December 2010 (Exhibit MWE 8);
 - U.S. Patent Application Publication No. 2008/0092912 (hereinafter referred to as 'Robinson'), published on 24 April 2008 (Exhibit MWE 9);
 - U.S. Patent Application Publication No. 2011/0036346 (hereinafter referred to as 'Cohen'), published on 17 February 2011 (Exhibit MWE 10);
 - U.S. Patent No. 7,658,613 (hereinafter referred to as 'Griffin'), published on 9 February 2010 (Exhibit MWE 11);
 - U.S. Patent Application Publication No. 2013/0255702 (hereinafter referred to as 'Griffith'), published on 3 October 2013 (Exhibit MWE 12);
 - U.S. Patent Application Publication No. 2013/0220315 (hereinafter referred to as 'Conley'), published on 29 August 2013 (Exhibit MWE 13);
 - U.S. Patent Application Publication No. 2010/0242974 (hereinafter referred to as 'Pan'), published on 30 September 2010 (Exhibit MWE 14).
 - Korean Patent Application Publication No. 2012-0074625 A ('Lee'), published on 6 July 2012 (Exhibit MWE 15).
 - U.S. Patent Application Publication No. 2013/0042865 A1 ('Monsees'), published on 21 February 2013 (Exhibit MWE 16).
 - U.S. Patent Application Publication No. 2013/0192617 A1 ('Thompson'), published on 1 August, 2013 (Exhibit MWE 17).
- 61. For the inventive step attack to the independent claim 1 the Claimant refers to 'Cross' and 'Pan' as two different starting points to be considered in combination with CGK and/or 'Weigensberg' and/or 'Trescher'. The Defendant considers that referring to different starting points is a not permissible approach and accepts as appropriate the problem-solution approach starting from one single prior art document defined as closest prior art.

- 62. 'Cohen', 'Griffith', 'Conley' and 'Griffin' are considered by the Claimant as disclosing the dependent claims.
- 63. The assessment of the inventive step must be carried out in accordance with Article 56 'EPC', which states that '[a]n invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art'. Hence, it is necessary to determine whether, given the state of the art, a person skilled in the art would have arrived at the technical solution claimed by the patent using its technical knowledge and carrying out simple operations. Inventive step is assessed in terms of the specific problem encountered by the person skilled in the art (see Paris LD, decision issued on 3 July 2024, UPC_CFI_230/2023).
- 64. In order to assess whether or not a claimed invention is obvious to a person skilled in the art, it is first necessary to determine one or more teachings in the prior art that would have been of interest to a person skilled in the art who, at the priority date of the patent in suit, was seeking to develop an invention or process similar to that disclosed in the prior art. Then, it must be assessed whether it would have been obvious for the skilled person to arrive at the claimed solution of the underlying technical problem on the basis of a realistic disclosure of the selected prior art documents (see, Munich CD, decision issued on 17 October 2024, UPC_CFI_252/2023; Dusseldorf LD, decision issued on 10 October 2024, UPC_CFI_363/2023). The problem-solution approach is only one possible way for assessment of the inventive step. There is no legal rule that requires its application or restricts the application of other approaches. This panel considers that an assessment based on different starting points as suggested by the Claimant is a complete and objective approach as well.

Problem to be solved

- 65. For the validity of the Patent it is important in general, what the invention actually achieves over the state of the art (also referred to below as "prior art") and what underlying problem is objectively solved.
- 66. The underlying problem determines the angle of vision that the skilled person will adopt when considering the prior art. For a fair and objective assessment of inventive step, it is important that the underlying problem is formulated neither too narrowly nor too broadly.
- 67. On the one side, the underlying problem must be so formulated as not to contain pointers to the solution. Including part of a technical solution offered by an invention in the statement of the problem will, when the state of the art is assessed in terms of that problem, necessarily result in an ex post facto view being taken of inventive step.
- 68. On the other hand, the problem must be derived from what the invention actually achieves over the state of the art (also referred to below as "prior art") and must be causally related to the technical features of the claimed invention.

- 69. EP '453 does not explicitly state, which problem is solved by the claimed solution proposed. EP '453 in [0034] generally states that a battery charger 400A, having charging contacts 402, may be attached or connected to charging contacts 160 provided on outer shell 106, or otherwise exposable to the environment. In relation to an embodiment that EP '453 explicitly states not to be covered by the claims, EP '453 in [0031] in reference to Figure 3, describes a charger 400 to be inserted into chamber 108 (FIG. 1) in order to charge battery 110 where battery 110 may be rechargeable. Regarding the latter embodiment (not covered by the claim), EP '453 in [0040] indicates that the cartomizer portion is first removed from the chamber to expose the electrical connector and thereafter a charger with compatible electrical contacts is inserted into the chamber. In the same paragraph, EP '453 refers to other types and locations of connectors on the vaporizer and charger and highlights that in some of these embodiments the cartomizer portion is not removed.
- 70. To the skilled person's understanding of these explanations, the invention achieves to provide a charger for the vaporizer that allows charging without the need to open or partially dismantle the vaporizer, especially without the need to remove the cartomizer or the batteries.
- 71. Defendant's position that the overall common problem is to provide a vaporizer with an improved user experience (mn 199 Defence to Revocation) cannot convince. A thus worded problem would be too unspecific and without a link to what the invention actually achieves over the state of the art.

VI. Starting from 'Pan'

72. The Court agrees with the Claimant that the teachings disclosed in 'Cross' and 'Pan' are different suitable starting points in the assessment of the inventive step. However, the Court is not bound by the order of the arguments put forward by the Claimant in the Statement for revocation, and, in accordance with the principle of efficiency of the proceedings, is free to decide which of the two staring points should be considered first. Indeed, the panel identifies 'Pan' to be closer to the invention, since it relates to the same product and falls within the same field as the claimed invention.

Disclosure of 'Pan'

- 73. 'Pan' relates to an electronic cigarette and discloses a vaporizer with all features of the claimed invention with the exception of the feature (1.6). Actually, the defendant does not explicitly contest that 'Pan' describes a vaporizer with the features (1.1), (1.2), (1.2.1), (1.2.2), (1.2.3), (1.2.5), (1.3), (1.3.1), (1.3.2), (1.3.4) and (1.5).
- 74. 'Pan' shows a vaporizer, which is called electronic cigarette in 'Pan' (feature 1.1).

- 75. The vaporizer of 'Pan' has a battery portion, which in 'Pan' is called the inhaler tube 10 (feature 1.2).
- 76. The battery portion (the inhaler tube 10) in 'Pan' has a battery housing segment proximate a first end of the battery portion, the battery housing segment housing a battery (feature 1.2.1). In the embodiment shown in Fig. 3, 5 and 7 and described in detail in paras. [0029], [0033], [0034], [0035], [0037] 'Pan' discloses a vaporizer that has an inhaler tube 10, which is a battery portion. The inhaler tube 10 has a part in which the electric power source 5 is arranged (see Fig. 3, 7). This part is a battery housing segment. As can be seen from Fig. 3, 7, this battery housing segment is arranged proximate a first end of the inhaler tube 10. Para. [0033] describes an electric power source 5 to be part of the electronic inhaler. As shown in Fig. 5 and 7, this electric power source 5 is housed within the battery housing segment of the electronic inhaler. Para. [0035] describes the electric power source 5 to be a battery.
- 77. The battery portion (the inhaler tube 10) comprises a cartomizer receiving segment proximate a second end of the battery portion (feature 1.2.2). The inhaler tube 10 has a part, into which the integrated electronic atomizer shown in Fig. 3 is (partially) inserted as shown in Fig. 7. This part is a cartomizer receiving segment. As can be seen in Fig. 3 it is arranged proximate a second end of the battery portion (the inhaler tube 10).
- 78. The vaporizer of 'Pan' has a chamber provided within at least a portion of the cartomizer receiving segment, wherein the chamber has an insertion end distal from the battery housing segment and a base end proximate to the battery housing segment (feature 1.2.3) A part of the inhaler tube 10 has a chamber, into which the integrated electronic atomizer shown in Fig. 3 is partially inserted (see Fig. 7). This chamber has an open end (upper end in Fig. 5). The integrated electronic atomizer is inserted via this open end, making this end an insertion end of the chamber. As seen in Fig. 5, the open end is distal from that part of inhaler tube 10, in which the electric power source 5 is arranged (the battery housing segment). The chamber by way of the upward facing surfaces of the seal piece 25 and the socket seat 28 in Fig. 5 has a base end. This base end is arranged (the battery housing segment).
- 79. In 'Pan' battery electrical contacts are provided at the base end of the chamber (feature 1.2.4). The integrated electronic atomizer of Pan has a DC plug 21 located on a plug seat 71 (para. [0029] and Fig. 3). To the skilled person, the term "a DC plug" already by its name indicates an electrical connector for supplying direct current (DC) power. Supplying direct (DC) current necessitates two conductors across which a non-alternating potential difference exists. 'Pan' shows a DC plug-socket type second electric connector 21 individually in Fig. 3 and DC plug-socket type first electric connector 17 individually in Fig. 5. Fig. 7 shows the DC plug-socket type second electric connector 21 and DC plug-socket type first electric connector 17 in interconnected state.

- 80. Para. [0037] states that the electronic inhaler (the battery portion in Pan) and the electronic atomizer (the cartomizer in 'Pan') are connected via the electric connectors of the DC plug-socket type and states that this connection achieves the electric combination of the inhaler tube and the atomizer tube. To the skilled person's understanding the indication in para. [0037] that the electric combination is achieved by the DC plug-socket type means that all that is needed to achieve the electric combination is provided within that connection, namely the electric connectors DC plug-socket type. It is without dispute between the parties, that a DC connection has a positive and a negative terminal. To the skilled person understanding, the positive terminal and the negative terminal of the DC connection that achieves the electric combination of the inhaler tube as it is their connection that achieves the electric combination of the inhaler tube.
- 81. The DC plug-socket type first electric connector 17 of the electronic inhaler as disclosed to the skilled person by way of description (paras. [0029], [0033] and [0037]) and figurative (Fig. 3, 5, 7) provides battery electrical contacts (in the plural). Defendants statement to the contrary cannot convince.
- 82. The battery portion in 'Pan' by way of the inhaler tube 10 comprises an outer shell commonly shared by the battery housing segment and the cartomizer receiving segment (feature 1.2.5).
- 83. The body of the integrated electronic atomizer of 'Pan' up to the end portion that contains the air-puffing hole is a cartomizer body that is configured for insertion into the distal insertion end of the chamber of the cartomizer receiving segment of the batter portion (feature 1.3). As shown in Fig. 7 and described in para. [0037], the integrated electronic atomizer shown in Fig. 3 is partially inserted into the chamber of the inhaler tube 10.
- 84. This cartomizer body by way of the liquid container 261 in 'Pan' is configured to hold a vaporizable substance (feature 1.3.1). The integrated electronic atomizer shown in Fig. 3 has a liquid container 261. Para. [0029] describes a liquid-storing media 264 that is filled with liquids to be inserted inside the liquid container 261.
- 85. The cartomizer of 'Pan' (integrated electronic atomizer) has a heating element within the cartomizer body configured to heat the vaporizable substance (feature 1.3.2). Para. [0029] describes the integrated electronic atomizer to have a heat equalizer 269 twined with an electric heating wire 265. Fig. 3 shows the heat equalizer to be arranged proximate the liquid container 261. Para. [0037] describes an electric current flowing through the electric heating wire, which achieves vaporization of the solution inside the liquid container.
- 86. In 'Pan' cartomizer electrical contacts are provided on an exterior of the cartomizer (feature 1.3.3). The DC plug-socket type described above for feature 1.2.4 by way of the second electric connector 21 of the integrated electronic atomizer discloses to the skilled person by way of description (paras. [0029], [0033] and [0037]) and figurative (Fig. 3, 5, 7) cartomizer electrical contacts (in the plural). Defendants statement to the contrary cannot

convince. A pin of the DC plug of the electronic atomizer (the cartomizer in 'Pan') protrudes from the bottom end of the electronic atomizer (see Fig. 3). The electric contacts 218 shown in the embodiment of Fig. 11 of the Patent also protrude from the lower part of the cartomizer. (see para. 57 above, copy of Fig. 11 of the Patent).

- 87. The above-described pin of the DC-plug of 'Pan' is as much arranged on the exterior of the cartomizer as are the electric contacts 218 in the embodiment of Fig. 11 of the Patent.
- 88. Should the Defendant consider the term "on the exterior" to be synonymous with an arrangement "flush with an outer surface of the exterior of the cartomizer", the understanding is not supported by the Patent.
- 89. The DC plug 21 in 'Pan' provides cartomizer electrical contacts that are on an exterior of the cartomizer.
- 90. The cartomizer of 'Pan' (the integrated electronic atomizer) comprises a cartomizer electrical circuitry (electric heating wire 265) configured to direct an electrical current between the cartomizer electrical contacts and the heating element (feature 1.3.4). Para. [0029] describes the integrated electronic atomizer of 'Pan' to have a DC plug 21 and a heat equalizer 269 twined with an electric heating wire 265. Para. [0037] describes an electrical combination of the inhaler tube and the atomizer tube to be done. This combination is done via a connection through the first electric connector socket 28 of the electronic inhaler and the second electric connector plug 21 (para. [0037]). The user puffs on the end of the electronic cigarette with the air-puffing hole to activate the CPU processor through detection of an airflow signal and to generate an electric current flow through the electric heating wire, which achieves vaporization of the solution inside the liquid container. To the skilled person it is clear that the source of the current is the electric power source 5. 'Pan' thereby describes a current flow from the electric power source 5 through the first electric connector 17 and the second electrical connector 21 and through the electric heating wire 265 to the heat equalizer 269.
- 91. The atomizer tube 263 of 'Pan' has an air-puffing hole in the centre of one end of the atomizer tube 263 (para. [0029] and Fig. 3). According to para. [0037] the user puffs on the end of the electronic cigarette with the air-puffing hole. That is the above mentioned one end of the atomizer tube 263. This end of the atomizer tube 263 is a mouthpiece. The sectional view of Fig. 3 shows the air-puffing hole to lead into a chamber within the atomizer tube 263. In this chamber the liquid container 261 is arranged. The mouthpiece provided by the one end of the atomizer 263 with the air-puffing holes is in fluid communication with the cartomizer body, namely the rest of the atomizer 263 that continues below the part with the air-puffing hole (the mouthpiece) (feature 1.3.5).
- 92. As can be seen from Fig. 7, the mouthpiece provided by the one end of the atomizer 263 with the air-puffing holes extends from the insertion end of the chamber when the cartomizer is inserted in the chamber (feature 1.3.6). Defendant does not show that the

mouthpiece in 'Pan' does not extend from the insertion end of the chamber when the cartomizer is inserted in the chamber.

- 93. In 'Pan' the battery electrical contacts are configured to contact the cartomizer electrical contacts when the cartomizer is inserted in the chamber (feature 1.4). Defendant's statement to the contrary solely relies on the earlier statement to feature 1.2.4 and the alleged lack of a plurality of battery electrical contacts. As stated above, para. [0029] describes the integrated electronic atomizer of 'Pan' to have a DC plug 21 and a heat equalizer 269 twined with an electric heating wire 265. Para. [0037] describes an electrical combination of the inhaler tube and the atomizer tube to be done. This combination is done via a connection through the first electric connector socket 28 of the electronic inhaler and the second electric connector plug 21 (para. [0037)], the latter providing battery electrical contacts as discussed above for feature 1.2.4.
- 94. In 'Pan' the heating element is configured to be activated by the electrical current and to heat the vaporizable substance (feature 1.5).
- 95. Both parties agree that 'Pan' does not disclose feature 1.6 as it does not describe the vaporizer to further comprise charging contacts at or proximate to the first end.

'Pan' combined with 'Weigensberg'

- 96. Starting from the teaching disclosed in 'Pan', the skilled person, in the attempt to solve the underlying problem, would have looked at 'Weigensberg' which discloses a device that has the same basic structure as the one disclosed 'Pan'.
- 97. 'Weigensberg' by way of Embodiment 1 described in relation to Fig. 1 to 13 describes a smoking device (a vaporizer) that has a barrel comprising a battery section 12 and a cartridge section 16, including an atomizer having a high resistance electrical wire, which heats a liquid or gel when the atomizer is powered (page 7, line 24 to 30). An adaptor connects the section 16 and the battery section 12 and may comprise a threaded connector.
- 98. Structurally, the device disclosed in 'Weigensberg' is essentially different from the one disclosed in 'Pan' only in that in the latter the cartomizer is partially inserted into a chamber, while in the first one the cartridge section is attached to the battery section 12 by the adaptor 30; for the remaining aspects the structural features relevant for solving the underlying problem are very similar.
- 99. As a key feature topic 'Weigensberg' seeks to provide an improved electronic cigarette, which is connectable to a battery charger without disassembly of the cigarette (page 2, lines 10 to 12). 'Weigensberg' discusses the problem that rechargeable batteries housed within the electronic cigarette are generally used to power the atomizer and that during use it becomes necessary to recharge the batteries from time to time (page 2, lines 1 to 3). 'Weigensberg' contemplates that this may require some disassembly of the electronic

cigarette in order to connect an external charging device, while it is impractical to smoke using the electronic cigarette while charging the device without actually replacing the battery. To do so, it would be necessary to repeatedly disconnect the charger, reassemble the electronic cigarette, puff, and then reverse the procedure to continue the charging process.

- 100. In Embodiment 1, 'Weigensberg' discloses the vaporiser (called smoking device 10 or electronic cigarette 94 in 'Weigensberg') to be adapted to a battery charger (page 11, lines 4 to 5). In this context, 'Weigensberg' makes reference to contacts 100, 102, which Fig. 13 shows to be arranged at the free end (the first end) of the battery section 12. To the skilled person's understanding the device of 'Weigensberg" hence comprises charging contacts (contacts 100, 102) at or proximate to the first end of the battery portion.
- 101. Given this explicit guidance in 'Weigensberg', the skilled person, in his attempt to solve the underlying problem of providing means for charging the batteries of the vaporizers that can be handled easily, would have found the claimed invention on the basis of its knowledge and skills, namely by providing the device already known from 'Pan' to include charging contacts at or proximate to the first end (102A) as an obvious modification.
- 102. The Defendant states (mn 212 Defence to Revocation) that 'Weigensberg' discloses external contacts 100, 102 at one end of the electronic cigarette 94.
- 103. The Defendant argues that this disclosure of 'Weigensberg' does not change anything about the fundamentally different structures of the electronic cigarette of 'Pan' and the electronic cigarette of 'Weigensberg'. Defendant further argues that 'Weigensberg' does not disclose the features 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.3, 1.3.2, 1.3.3, 1.4 and that this lack of disclosure overlaps with the lack of disclosure of features in 'Pan'. From this, Defendant contests that the person skilled in the art is not able to transfer any suitable teaching of 'Weigensberg' to the embodiment disclosed in 'Pan'.
- 104. This argument cannot convince. As indicated above, the only distinguishing feature between the claimed invention of claim 1 and 'Pan' is feature 1.6. This feature is disclosed in 'Weigensberg' in a manner that the skilled person would find it and would be motivated to introduce it into 'Pan'.
- 105. The Defendant further states that the general configuration of 'Pan' with the connection between the atomizer tube 263 and the inhaler 10 being done through the first electric connector socket 17, 28 of the electronic inhaler 10 and the second electric connector plug 21 of the electronic atomizer 21 (described in para. [0037]) is different to the general configuration of 'Weigensberg' with the screwed connection between the battery portion and the front affixed atomizer. This, Defendant argues, would prevent a person skilled in the art from combining the disclosure of 'Pan' with the teaching of 'Weigensberg'. This argument does not convince. The way of conducting the electrical power from the battery portion to the cartomizer to the skilled person's understanding of

the claimed invention is not intrinsically linked to arrangement of the charging contacts at or proximate to the first end.

106. The Defendant argues that 'Pan' teaches away from feature 1.6, because 'Pan' teaches an LED indicator 12 at the first end of the electronic cigarette as discussed above. The LED indicator 12 at the first end is shown in below figure 7 of 'Pan' (coloured and annotated by the Defendant). This argument cannot convince, as 'Weigensberg' also has an LED in the proximity of the charging contacts ('Weigensberg', page 10, line 28 to 33).



'Pan' combined with 'Trescher'

- 107. Similar line of arguments could be put forward considering 'Trescher'.
- 108. 'Trescher' discloses a nicotine delivery device adapted to be used with a rechargeable battery, which can be coupled for charging with an external power supply, such as the domestic power supply, for example with the aid of corresponding adapter, by means of a connection provided, for example, on the front side of the device page 1, lines 1 7, page 8, lines 6-7, and page 10, lines 20- 25).
- 109. Furthermore, 'Trescher' teaches that the electronic cigarette comprises two charging points configured for charging the battery, for example, via a suitable charging station (page 15, lines 18 22).
- 110. Therefore, the invention is obvious in view of 'Pan' combined with 'Weigensberg' and/or 'Trescher' and the patent could not be maintained as granted.
- 111. Since the claimed invention is not based on an inventive step over 'Pan' combined with 'Weigensberg' or 'Trescher', it is not necessary to evaluate whether the vaporizer described in claim 1 of the patent at issue was disclosed in the other prior art documents as well.

VI. Application to amend the patent at issue

112. In the alternative the Defendant requests that the patent be maintained in amended form based on one of the proposed amendments (selected set of Auxiliary Requests I to VIII).

Auxiliary requests I and II

113. As already stated, (see paragraph 33 above), Auxiliary requests I and II are inadmissible as not timely filed. However, for the sake of completeness, the Court considers it appropriate to point out that, even if they were admitted into the proceedings, they would have no impact on the validity of the patent, since they are including new features not related to the technical effect of the claimed invention and there is no synergetic effect to the only one distinguishing feature of claim 1 (feature 1.6).

Auxiliary request III

- 114. The amendment is that the dependent claim 4: "wherein the vaporizer further comprising magnets (124, 202) to retain the cartomizer (200) within the chamber (108)" is included in the independent claim 1.
- 115. The Claimant refers to arguments for lack of inventive step of dependent claim 4 of patent as presented in Statement for revocation (mn 230 etc.), namely obvious over 'Pan' combined with CGK (mn 233) and/or 'Griffith' (mn 234), and/or 'Conley' (mn 235).
- 116. The Court notes that the amendment is similar to the invention of EP 2 875 740 B1 which has been upheld as granted by decision of this Court issued on 29. November 2024 in the revocation action No. ACT_571537/2023, UPC_CFI_307/2023. In that case, however, the invalidity of the EP 2 875 740 B1 was challenged on the basis of other prior art documents different from the prior art documents in the present case.
- 117. 'Conley' describes in [0018] the power source 102 (the battery portion in claim 1 of EP '453) and the cartridge 104 (the cartomizer of claim 1 of EP '453) to be mechanically and electrically coupled to one another. As a (first) example, 'Conley' discloses the power source 102 to have a threaded receiver and the cartridge 104 to have the threaded fastener. In this example one end of the cartridge 104 is inserted into a receiver of the power source by way of threads. But in direct context of this first example 'Conley' further states as following: "Of course, other types of connection mechanism that can mechanically and electrically couple the power source 102 with the cartridge 104 are contemplated and are intended to fall under the scope of the hereto-appended claims. These include magnetic connection mechanism ...". In paras. [0047] and [0051] 'Conley' describes once again the magnetic connectors as an example for security means.
- 118. A "magnet connection mechanism" as explicitly stated in 'Conley' according to the CGK consist of a north-magnet and a south-magnet that interact to provide the magnet

attraction. Since claim 4 does not require two pairs of magnets with opposing polarity (like shown in original Fig. 9 of EP '453), but simply speaks of "magnets", leaving open, where the two magnets are, the embodiment sketched above for 'Conley' also shows such a design feature. It follows that the dependent claim 4 lacks of inventive step over 'Conley', hence Auxiliary request III cannot overcome the invalidity of the independent claim 1.

Auxiliary request IV

- 119. Auxiliary request IV builds on Auxiliary request III and adds the limitation that the cartomizer body (208) is configured to hold a *fluid* vaporizable substance.
- 120. A body configured to hold fluid is disclosed in claim 11 of 'Pan'. Therefore, the limitation of the vaporizable substance is not inventive and Auxiliary request IV cannot overcome the invalidity of the independent claim 1.

Auxiliary request V

- 121. Auxiliary request V combines features from the previous auxiliary requests and adds two new features:
 - a wicking element (216) provided within the cartomizer body (208),
 - an inhalation tube (222) in fluid communication with the heating element (214) and the wicking element (216), wherein the inhalation tube (222) extends from the heating element (214) and the wicking element (216) to the mouthpiece (220)
- 122. Firstly, the added features have no synergetic effect with the distinguishing feature 1.6 of claim 1. Secondly, the added features are disclosed in 'Pan'.
- 123. The Court is of the opinion that 'Pan' describes also a wicking element placed within the cartomizer body by way of the heat equalizer 269 provided within the cartomizer body. Indeed, para. [0012] in 'Pan' discloses that the electric current flows through the electric heat wire inside the atomizer tube, which then heats up the heat equalizer with absorbed liquid from the liquid-container and the heat equalizer converts the liquid into a form of a vapor mist, which is finally drawn into the mouth of the user.
- 124. The Defendant argues the heat equalizer 269 cannot be interpreted as a wick or wicking element, as it is just a structure that is heated by the electric heating wire 265 to thereby supply heat for vaporization of the liquid inside the liquid-storing media 264. Indeed, the skilled person would understand that the liquid absorbed in the liquid-storing media 264 in the liquid container is heated and converted "into a form of vapor mist" due to proximity to the high temperature of the heat equalizer 269, not that any wicking or capillary forces have acted on any liquid. In the oral hearing the defendant also explained the feature disclosed in 'Pan' recalling the "hairdryer principle", arguing that the electric heat wire and the heat equalizer heat the air that is pulled through them by the suction of

the user and for the (dry) heated air to flow through the liquid-storage media 264 to then vaporize the liquid inside the liquid-storing media 264.

- 125. The Defendant further argues that the reference to "inside the liquid chamber" in para. [0025] of 'Pan' is to be understood as a reference to the location where the vaporization is to take place and hence this would necessitate that the device disclosed in 'Pan' works with the hairdryer principle. The defendant points to a white space that is visible in Fig. 3 which separates the heat equalizer from the liquid-storing media 264 that speaks against liquid from the liquid-storing media 264 reaching the heat equalizer.
- 126. Moreover, the Defendant notes that 'Pan' requires the material of the heat equalizer to withstand a high temperature up to 2000 degrees centigrade and this is an indication that the device is to operate according to the "hairdryer principle".
- 127. The Court disagrees with the Defendant. As indicated above, 'Pan' attributes particular importance to the heat-equalizer in the generation of the vapor and explicitly states that it is the heat equalizer that converts the liquid into a form of vapor mist (see paras. [0012] and [0014]). The conversion from liquid into vapor mist hence takes place within the heat equalizer and not as suggested by the defendant downstream of the heat equalizer in the liquid-storage media 264.
- 128. The use of the term "inside the liquid-storage media" is understood by the skilled person as a reference to where the liquid that is to be vaporized is supplied from rather than a location, where the vaporization takes place. The vaporization principle implemented in 'Pan' is described in para. [0012] in which is stated that the electric heat wire heats up the heat equalizer with absorbed liquid from the liquid container. The term "absorbed liquid from the liquid container" is to be understood as to attribute the function of liquid supply to the liquid container. The heat equalizer has absorbed liquid, which is supplied to it by the liquid container. This to the skilled person's understanding this is a description of a wicking element.
- 129. This conclusion is not contradicted by Fig. 3, which is only a sectional view and, therefore, is not sufficient to demonstrate which extend the white space has in a direction perpendicular to the sectional plane. In fact, given that para. [0012] explicitly states that the heat equalizer absorbs liquid from the liquid-container, the skilled person understands that the white space in Fig. 3 does not extend through the entire cross-section, but that liquid storing media 264 and heat equalizer are in contact. This view is supported by Fig. 2 (below left; enlarged section of Fig. 2 below right) that shows the fluid-storage media 264 to reach down to the heat equalizer on the right-hand side, while a white space, that to the skilled person's understanding is part of a channel, branches off from the heat equalizer towards the left. It is also noted that para. [0013] highlights the unique technical advances achieved by an integrated atomizer technology achieved by the device of 'Pan' in distinction over prior art devices, where the liquid chamber is made as a separate piece, which must be inserted into the atomizing chamber before the electronic cigarette can be used.



- 130. Lastly, the reference to high temperatures is understood by the skilled person as an instruction for a material choice of the fibres to ensure a safe operation of the device (see, in particular, paras. [0027] and [0028]).
- 131. Regarding the features: "an inhalation tube (222) in fluid connection with the heating element and the wicking element, wherein the heating element operable to heat the vaporizable substance to the vaporizing temperature is configured to create a vaporized fluid, and wherein the inhalation tube is configured to let the vaporized fluid travel there through to the mouthpiece for inhalation by a user", Para [0012] of 'Pan' discloses a heat equalizer that converts the liquid into a form of a vapor mist, which is finally drawn into the mouth of the user and a tube that extends inwards from the mouthpiece and that is in fluid connection with the heating element and the wicking element.
- 132. Therefore, Auxiliary request V cannot overcome the invalidity of claim 1.

Auxiliary request VI

- 133. Auxiliary request VI builds on Auxiliary request V and further specifies that the fluid is a "free-standing" fluid.
- 134. The Court notes that while the meaning of the term "fluid" is clear, as it is everything that is not solid and encompasses liquids and gases, it is unclear what is to be meant by a fluid to be "free-standing".
- 135. The Defendant does not provide any definition or explanation of the meaning of this term, merely asserting that the claim language is clear, but no useful arguments are provided on this point.
- 136. Therefore, the application to amend the patent with the claim set in Auxiliary Request VI must be rejected as it contravenes Article 84 of the 'EPC', according to which the claims shall be clear.

Auxiliary requests VII and VIII

137. Auxiliary requests VII and VIII include the same unclear term "free-standing fluid" and must be rejected as they contravene Article 84 of the 'EPC' as well.

VII. Alternative request to maintain the patent at suit in part

138. As the application to amend the patent is unfounded, the Court must address the Defendant's alternative request to maintain the patent at suit in part with regard of one or more of its dependent claims in combination with independent claim 1 as granted. So phrased, the alternative request is clear in that it contains a clearly expressed will of the Defendant to maintain all dependent claims in combination with independent claim 1 as granted. It is for the Court to assess on which of them the patent could be upheld in part. This request is consistent with Article 65 (3) of the Unified Patent Court Agreement ('UPCA'), according to which "Without prejudice to Article 138(3) of the EPC, if the grounds for revocation affect the patent only in part, the patent shall be limited by a corresponding amendment of the claims and revoked in part". Therefore, the objection raised by the Claimant during the oral hearing on this point must be dismissed.

Claim 2

- 139. Claim 2 recites as follows: "The vaporizer in accordance with claim 1, further comprising a printed circuit board (112) configured to control one or more functions of the vaporizer."
- 140. 'Pan' discloses in para- [0033] an integrated circuit board with a CPU processor. Further, claim 2 of 'Pan' recites as follows: "The electronic cigarette of claim 1, further comprising an integrated circuit board that has a Single Chip Micyoco that controls atomization of a liquid solution". Hence, claim 2 of the patent at suit provides no additional distinction of 'Pan'.

Claim 3

- 141. Claim 3 recites as follows: "The vaporizer in accordance with any of the preceding claims, further comprising an accelerometer."
- 142. 'Cohen' teaches in para. [0035]: "'It is also possible to use an input device in form of an accelerometer disposed inside in the inhalation device 10, whereby shaking or tapping the inhalation device 10 activates an accelerometer, which sends a signal to the logic circuit 126." Hence, claim 3 lacks of inventive step over 'Cohen'.

Claim 4

- 143. Claim 4 recites as follows: "The vaporizer in accordance with any of the preceding claims, further comprising magnets (124, 202) to retain the cartomizer (200) within the chamber (108)".
- 144. As said in respect to Auxiliary request III, the dependent claim 4 lacks of inventive step over 'Conley'.

Claim 5

- 145. Claim 5 recites as follows: "The vaporizer in accordance with any of the preceding claims, wherein the battery portion comprises one or more indicator lights (114)."
- 146. 'Pan' discloses in Fig. 4, reproduced above, LED indicator 12 which is a kind of indicator light. Therefore, claim 5 provides no additional distinction of 'Pan' and lacks of inventive step.

Claim 6

- 147. Claim 6 recites as follows: "The vaporizer in accordance with any of the preceding claims, further comprising a magnet (162) proximate to the charging contacts (160)."
- 148. The Claimant states that 'Weigensberg' further teaches that the battery charger electrode assembly 96 comprises positive and negative terminals 111 of a conventional battery charger connected to magnets 98 via disks 124 (Statement for revocation mn 245; 'Weigensberg', page 11, lines 4-10 and page 11, line 33 page 12. Line 3) and that the magnets 98 are attracted to the charging contacts 100 and 102 on the cigarette device, such that the charger and the device are urged into firm electrical contact. Thus, according to the Claimant, when the charging assembly is connected to the device, the magnets (that are on the charging assembly) contact and are proximate to the charging contacts (that are on the cigarette device).
- 149. Fig.13 of 'Weigensberg' (coloured and annotated by the Claimant) illustrates the position of the magnets.



150. Referring to the magnets on the charger in 'Weigensberg', the Claimant argues that it did not take an inventive step to arrange the magnets next to the contacts on the battery

segment of the vaporizer.

- 151. This argument is not convincing. The magnets on the charger are on a different device. As far as the Claimant argues that the feature of claim 6 is already disclosed by the magnets on the charger, this argument cannot convince, because the magnets on the charger are not magnets on the vaporizer. Claim 6, being a subordinate claim to claim 1 that is directed to a vaporizer, is concerned about features of the vaporizer and not features of different devices that may be placed next to the vaporizer. The embodiment of 'Weigensberg' that discloses the magnets to be on the charger and to come into contact with the charging contacts of the cigarette device during charging does not disclose a vaporizer that has a magnet proximate to the charging contacts. In the referenced embodiment, the magnet is not on the vaporizer, but on the charger.
- 152. The Court notes that claim 4 of 'Weigensberg', cited by the Claimant, discloses the contacts of the electronic cigarette to be magnets. Hence, even if one considers that the skilled person may reflect upon changing the arrangement of magnets from the above-described embodiment (where the magnets are on the charger), nothing in 'Weigensberg' provides guidance to the skilled person to place magnets on the electronic cigarette by way of placing the magnets proximate to the charging contacts. For a case, where the magnets are to be arranged on the electronic cigarette, 'Weigensberg' teaches the skilled person to make the contacts be the magnets.
- 153. 'Trescher' does not speak of magnets at all and hence does not provide any guidance as to a particular arrangement of magnets.
- 154. Starting from 'Pan' in combination with 'Weigensberg' or 'Trescher' (for providing 'Pan' with feature 1.6), the skilled person would not be guided by 'Weigensberg' or 'Trescher' to additionally provide the vaporizer with a magnet proximate to the charging contacts.
- 155. The Claimant also argues that patent claim 6 lacks an inventive step over 'Cross' at least in further view of 'Weigensberg' and/or common general knowledge. The Claimant did not point to any disclosure in 'Cross' that would show feature 1.6 ("wherein the vaporizer further comprises charging contacts at or proximate to the first end") and argued that this feature would have been obvious in view of 'Weigensberg' and/or common general knowledge. As 'Weigensberg' does not provide guidance to provide the vaporizer to comprise a magnet proximate to the charging contacts, but only discloses the charging contacts of the electronic cigarette themselves to be magnets, it was not obvious starting from 'Cross' in view of 'Weigensberg' to suggest the subject matter of claim 6. Since, no charging contacts are disclosed by Cross, the person skilled in the art would not be motivated to consider magnets at all.
- 156. Regarding common general knowledge, it is unclear, if the Claimant claims that it belonged to the common general knowledge to provide a vaporizer with magnets proximate to charging contacts. In any case, the Claimant did not convince the Court that

it belonged to the common general knowledge to provide a vaporizer with magnets proximate to charging contacts.

157. In conclusion, the subject-matter of claim 6 involves an inventive step.

Claim 7

- 158. Claim 7 recites as follows: "The vaporizer in accordance with claims 1-5, wherein the battery portion (100) further comprises two magnets (162) with opposed polarities relative to each other, and wherein the two magnets (162) are positioned proximate to the charging contacts (160), wherein the two magnets (162) are configured to align the battery portion (100) with a charger (400A)".
- 159. The technical effect of this feature is to create a secure connection between the vaporizer and the charger to enable proper charging.
- 160. 'Weigensberg' does not explicitly teach that the magnets have opposite polarities. 'Trescher' does not speak of magnets at all.
- 161. The Claimant argues that the skilled person would be motivated to modify the prior art vaporizer by including charging contacts on the exterior of the device, as disclosed by 'Weigensberg', and may include two magnets with opposed polarity for engaging the cigarette with a charger, as disclosed in 'Griffin'.
- 162. This argument is not convincing.
- 163. 'Griffin' relates to a connector that includes a plug and a receptacle for connecting a power supply to a portable electronic device such as a lap top computer. (Col. 1:30-50 and 1:55-57, FIG. 1(a)). One problem arises when the connectors are inadvertently decoupled due to an accident, for example when a person trips over a cable attached to the connector or by pulling a lap top computer off a table. 'Griffin' aims to provide an improved connector where the plug is designed to be easily removed from the receptacle. The invention of 'Griffin' consists of a magnetic connector having magnets of polar orientation on the plug and on the receptacle so that the connectors will attract each other when "properly aligned." (Col. 3:55 57 and 4:50-56).



Fig. 1a of 'Griffin'

- 164. Despite the generally worded terms, 'Griffin' is a document that generally relates to accessories of laptops. Describing the background of the invention and the technical problem to be solved, 'Griffin' refers namely to a laptop (Col. 1:30-50). The technical field of accessories to laptops is not the technical field of the patent at suit, which relates to vaporizers. Hence, to find 'Griffin', the skilled person would need to look in a different technological field. Nothing in 'Pan' or 'Weigensberg' (or 'Trescher' for that matter) motivates the skilled person to look in the technical field of accessories to laptops. Turning to 'Griffin' is a step taken in hindsight by the Claimant.
- 165. Furthermore, the achieved technical effect of 'Griffin' to provide an easily removable plug in order to avoid damages of the connector is far away from the technical effect of claim 7 of the patent at suit to create a secure connection between the vaporizer and the charger.
- 166. The Claimant also argues that the subject-matter of claim 7 lacks an inventive step over 'Cross' in view of Weigensberg, 'Griffin' and/or common general knowledge. The Claimant did not point to any disclosure in 'Cross' that would show feature 1.6 ("wherein the vaporizer further comprises charging contacts at or proximate to the first end") and argues that this feature would have been obvious in view of 'Weigensberg' and/or common general knowledge. As 'Weigensberg' does not explicitly teach that the magnets have opposite polarities, in order to arrive at the subject-matter of claim 7, 'Cross' would need to be combined with 'Weigensberg' and 'Griffin', which for the reasons given above is not obvious.
- 167. Regarding common general knowledge, it is unclear, if the Claimant claims that the teaching of claim 7 it belonged to the common general knowledge. In any case, the Claimant did not convince the Court that the subject matter of claim 7 belonged to the common general knowledge of the skilled person.
- 168. In the statement for revocation in mn 37 the Claimant states that claim 7 lacks an inventive step over 'Cross' when combined with 'Weigensberg' or 'Trescher', 'Griffin', and/or common general knowledge, but in the submission in the context of the discussion of claim 7 does not follow up with any supporting arguments for this statement.
- 169. Therefore, the subject-matter of claim 7 involves an inventive step.

Claim 8

170. Claim 8 recites as follows: "The vaporizer in accordance with claims 1-5, wherein the battery portion (100) further comprises a metallic battery surface proximate to the charging contacts (160), wherein the metallic battery surface is configured to couple the battery portion (100) with a charger (400A)."

- 171. The Claimant argues that 'Weigensberg' discloses charging contacts to be of ferro metallic material and from this deducts that it is obvious to make the area proximate the charging contacts also ferro metallic.
- 172. This argument is not convincing. For the embodiment of 'Weigensberg' that discloses magnets to be on the charger and to come into contact with the charging contacts of the cigarette device, there is not guidance to additionally provide a metallic battery surface proximate to the charging contacts, because the charging contacts are already the elements that cooperate with the magnets on the charger.
- 173. Hence starting from either 'Cross' or 'Pan', that already need to be combined with 'Weigensberg' or 'Trescher' to provide the subject matter of claim 1, the subject matter of claim 8 was not obvious in further view of 'Weigensberg' (as claimed by the Claimant), because 'Weigensberg' does not provide any guidance to the skilled person to implement the teaching of claim 8. Given that 'Trescher' does not speak about magnets, 'Trescher' cannot provide guidance for the features of claim 8.
- 174. Regarding common general knowledge, it is unclear, if the Claimant claims that the teaching of claim 8 belonged to the common general knowledge. In any case, the Claimant did not convince the Court that the subject matter of claim 8 belonged to the common general knowledge of the skilled person.
- 175. Therefore, the subject-matter of claim 8 involves an inventive step.

Claim 9

- 176. Claim 9 recites as follows: "The vaporizer in accordance with any of the preceding claims, wherein the charging contacts (160) are positioned on the outer shell (106)."
- 177. To put the charging contacts on the outer shell is a basic engineering solution as otherwise they cannot be used.
- 178. 'Weigensberg' teaches as well that the charging contacts are positioned on an exterior face (outer shell). This position is clearly illustrated in Figure 13, reproduced above.
- 179. Therefore, claim 9 lacks of inventive step.

Claim 10

- 180. Claim 10 recites as follows: "The vaporizer in accordance with any of the preceding claims, wherein the charging contacts (160) are exposable to an environment."
- 181. Claim 10 lacks of inventive step for the same reasons as claim 9.

Claim 11

- 182. Claim 11 recites as follows: "The vaporizer in accordance with any of the preceding claims, wherein the battery portion (100) further comprises a switch (118A) configured to manually activate or otherwise control the vaporizer."
- 183. The technical effect of this feature is to allow a user to manually turn the device on or off. A teaching how the user can activate or otherwise control the vaporizer by manual depressing is disclosed in para. [0085] and Fig. 13 of 'Cross': "[...] includes microcontroller 152, power source 154, switch matrix 156, a hardware safety lock-out mechanism 158, a user activated switch 160 [...] Upon momentary depression of user activation switch 160, microcontroller 152 becomes operational [...] Microcontroller 152 can enter a sleep mode to conserve power until manually activated by depressing user activation switch 160 [...]"
- 184. The device of 'Pan' does not disclose an activating an on/off switch but describes an airflow electronic sensor to detect a puffing action (see paras. [0012], [0015] and [0025]).
- 185. The Claimant argues that an activation button in an electronic device is well known both in this art and in other everyday electrical devices and appliances and the skilled person would consider it to be an obvious alternative to the sensor-based activation arrangement of Pan. Therefore, modification of the 'Pan' device to include an activation button would lack an inventive step in view of common general knowledge.
- 186. 'Griffith' discloses an electronic smoking device 10 comprising a control body 80 and a cartridge 90, where the device may include a pushbutton 16 for manually activating the device located on the body 80, rather than the cartridge (see paras. [0019], [0055] and [0144] and Fig.1, coloured and annotated by the Claimant).



187. On/off switches and activation buttons are well known in every technical field as well. Therefore, the vaporizer of Patent claim 11 lacks an inventive step over 'Pan' or 'Cross' combined with 'Griffith' or with the 'CGK'.

VIII. Conclusion

- 188. The alleged lack of inventive step of claim 1 of the patent is proven, therefore the patent cannot be entirely maintained as granted.
- 189. The auxiliary requests do not overcome the invalidity of claim 1, therefore the patent cannot be maintained in amended form.
- 190. The invalidity of claim 1 justifies the invalidity of dependent claims 2, 3, 4 and 5 which alone lack of inventive step as well.
- 191. Dependent claims 6, 7 and 8 as granted involve alone an inventive step and each one acquires independent validity in combination with claim 1 as granted.
- 192. Therefore, the patent should be maintained in part based on the independent validity of claims 6, 7 and 8 in combination with claim 1 as granted.

C. Costs

193. As both parties succeed only in part, the Court decides that the parties shall bear their own costs in accordance with Art. 69 (2) of the UPCA.

DECISION:

Based on the foregoing, the Paris Central Division of the UPC, rules as follows:

European patent EP 3 613 453 B1 is maintained in part based on claims 6,
7 and 8 in combination with claim 1 as granted.

2. The rest part of EP 3 613 453 B1 is revoked with effect for the territories of Austria, Belgium, Denmark, Finland, France, Germany, Italy, Latvia, Luxembourg, Netherlands, Portugal and Sweden.

3. The parties shall bear their own costs of the proceedings.

Paolo Catallozzi Presiding judge	Paolo Catallozzi Firmato digitalmente da Paolo Catallozzi Data: 2025.01.22 16:30:36 +01'00'
Dr. Tatyana Zhilova Legally qualified judge and judge- rapporteur	TatyanaSignature numérique de Tatyana ZhilovaZhilovaDate : 2025.01.22 16:22:36 +01'00'

Issued on 22 January 2025

Max Tilmann Technically qualified judge	Max Wilhelm Digital unterschrieben von Max Wilhelm Tilmann Tilmann Distatur: 2025 10 22 1632:53 + 01'00'
Margaux Grondein Clerk	Unified Patent Court Einhadtliches Patentgericht Juridiction unifiée du brevet +01'00'

Information about appeal

An appeal against the present Decision may be lodged at the Court of Appeal, by the unsuccessful party within two months of the date of its notification (Art. 73(1) 'UPCA', R. 220.1(a), 224.1(a) 'RoP').

ORDER DETAILS

Order no. ORD_598526/2023 in ACTION NUMBER: ACT_571730/2023 UPC number: UPC_CFI_310/2023 Action type: Revocation Action