Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 6 October 2025

Case Number: T 0726/23 - 3.2.04

Application Number: 17714516.6

Publication Number: 3432958

IPC: A24F40/40, A61M11/04, A61M15/06

Language of the proceedings: EN

Title of invention:
MECHANICAL CONNECTOR FOR ELECTRONIC VAPOUR PROVISION SYSTEM

Patent Proprietor:
Nicoventures Trading Limited

Opponent:
Philip Morris Products S.A.

Headword:

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

Keyword:
Novelty - main request (yes)
Inventive step - main request (yes)
Amendments - extension beyond the content of the application as filed (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 0726/23 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 6 October 2025

Appellant: (Opponent)	Philip Morris Products S.A. Quai Jeanrenaud 3 2000 Neuchâtel (CH)
Representative:	Grünecker Patent- und Rechtsanwälte PartG mbB Leopoldstraße 4 80802 München (DE)
Respondent: (Patent Proprietor)	Nicoventures Trading Limited Globe House 1 Water Street London WC2R 3LA (GB)
Representative:	D Young & Co LLP 3 Noble Street London EC2V 7BQ (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 22 February 2023 concerning maintenance of the European Patent No. 3432958 in amended form.**

Composition of the Board:

Chairman	C. Heath
Members:	S. Hillebrand
	J. Wright

Summary of Facts and Submissions

I. The appeal was filed by the opponent against the interlocutory decision of the Opposition Division finding that the patent in suit in an amended form according to the main request met the requirements of the EPC.

In particular, the Opposition Division held that the subject-matter of independent claim 13 did not extend beyond the content of the application as filed, was new and involved an inventive step.

II. In a communication pursuant to Rule 15(1) RPBA, the Board preliminarily agreed with the findings of the Opposition Division except that it put into question the presence of an inventive step.

III. Oral proceedings were held before the Board in the form of a videoconference with both parties attending remotely.

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

The respondent (proprietor) requests that the appeal be dismissed, in the alternative that the decision under appeal be set aside and the patent be maintained in amended form according to one of auxiliary requests 1 - 6 of which auxiliary requests 1 - 5 correspond to auxiliary requests 2 - 6 filed in opposition proceedings and new auxiliary request 6 has been filed for the first time with the reply to the appeal.

V. Independent claim 1 of the main request reads as follows (designation of features added by the Board):

1A An electronic vapour provision system (100)
1B comprising a cartridge (200) for storing material heatable to generate an aerosol and
1C a control unit (300)
1D housing a battery (31) to provide electrical power for heating,
1E the cartridge and the control unit separably connectable together by at least one latching element (40),
1F the latching element comprising a foot (41), and
1G a leg (42) joined at a first end to the foot
1H by a flexible resilient joint (43) and
1I having a first latch member (44),
1J the foot anchored within one of the cartridge and the control unit, and
1K the latching element configured such that the flexible resilient joint joins the leg and the foot in a rest position at an angle of between 70 and 110 degrees,
1L and the other of the cartridge and the control unit having a second latch member (25) on a surface, and
1M positioned and configured to engage with the first latch member when the cartridge and the control unit are brought together with a substantially linear motion, and
1N disengage with the first latch member when the cartridge and the control unit are pulled apart,
1O the engagement and disengagement enabled by movement of the leg of the latching element about the flexible resilient joint,
1P characterized by the movement being a hinged movement that increases or decreases the angle of the flexible resilient joint from the rest position.

Independent claim 13 of the main request is directed to
13C A control unit (300) for an electronic vapour provision system (100),
13Ea the control unit separably connectable to a cartridge (200) and
13D' housing a battery (31) for providing electrical power to generate an aerosol from material stored in a connected cartridge,
13Eb the control unit comprising: at least one latching element (40) for connecting the control unit to the cartridge,
13F the latching element comprising a foot (41), and
13G a leg (42) joined at a first end to the foot
13H by a flexible resilient joint (43) and
13I having a first latch member (44),
13J' the foot anchored within the control unit, and
13K the latching element configured such that the flexible resilient joint joins the leg and the foot in a rest position at an angle of between 70 and 110 degrees,
13L and the other of the cartridge and the control unit having a second latch member (25) on a surface, and
13M positioned and configured to engage with the first latch member when the cartridge and the control unit are brought together with a substantially linear motion, and
13N disengage with the first latch member when the cartridge and the control unit are pulled apart,
13O the engagement and disengagement enabled by movement of the leg of the latching element about the flexible resilient joint,
13P characterized by the movement being a hinged movement that increases or decreases the angle of the flexible resilient joint from the rest position.

VI. In the present decision, reference is made to the following documents:
D8: CN 204070569 U
D8a: machine translation of D8
D9: CN 203388269 U
D9a: machine translation of D9.

VII. The appellant's arguments can be summarised as follows:
Feature 13K has not been originally disclosed for a control unit, only for a system.
The system of claim 1 is not new with regard to the disclosure of D8 and D9 or does at least not involve an inventive step when starting from D9. The same applies for the control unit of claim 13 for corresponding reasons.

The respondent's arguments can be summarised as follows:
Feature 1K/13K is disclosed for both the system and the control unit.
The system of D8 does not comprise feature 1P and that of D9 not features 1N, 1O, 1P. There is no motivation for isolating a certain shape of the latch member according to D8 and employ it in the system of D9 in order to solve the problem of facilitating disengagement.

Reasons for the Decision

1. The appeal is admissible.

2. **The patent and its technical background**

2.1 The patent deals with coupling and decoupling the two main components of a vapour provision system, namely a cartridge for storing consumable aerosol generating material and a control unit which houses a battery for providing power for electrical heating.

2.2 The coupling device is of the snap-fit type and comprises a first latch member on one of the cartridge and the control unit engaging and disengaging with a second latch member (e.g. groove or protrusion) on the respective other one when cartridge and control unit are pushed together and pulled apart. The first latch member (44 in figures 7 - 9 of the patent, kind of hook-shaped) is part of a leg 42 being in turn part of a latching element 40. Engagement and disengagement is enabled by hinged movement of the leg 42 about a flexible resilient joint 43 of the latching element 40.

3. **Main request - added subject-matter**

3.1 In point 1 of its communication pursuant Article 15(1) RPBA, the Board expressed the following preliminary opinion with regard to this objection against claim 13:

"*1.1 Independent claim 13 is based on original independent claim 17 directed to a control unit for an electronic vapour provision system having a latching element and includes features 13K disclosed in original claim 10 which, however, relates to the system as such*

comprising a cartridge and a control unit. In a purely formalistic approach features 13K could be considered as not being originally disclosed since original claim 10 does not refer to original claim 17. This line of argumentation appears, however, not to hold when considering the actual content of the original disclosure.

1.2 Features 1K/13K define the latching element which can be part of either the cartridge or the control element according to feature 1J of original claim 1. Accordingly, the skilled reader seems to attribute features 1K/13K to the latching element as such, independently of its location on the control unit or on the cartridge of the system and therefore to be disclosed for both alternatives.

1.3 In the embodiments of figures 1 - 9 of the original application, the latching element 40 with the first latch member 44 is actually part of the control unit 300 which can be separated from the cartridge 200 comprising the matching second latch member 25, 27. The description of figure 8 on page 11 of the original application includes basic definitions of "rest position", and discloses possible configurations of the latching element in this rest position, in particular the claimed features 13K, and the conditions under which these can be realised. This passage, i.e. the third paragraph on page 11, seems to represent a general, self-contained disclosure of the latching element's characteristics which, in the specific example of figure 8, is placed in the control unit. Therefore, adding features 13K seems also to be supported by page 11, line 19 of the original specification. Any direct functional or structural link with other features of figure 8 does not seem to have

been demonstrated by the appellant. There is no need to include further features arbitrarily picked from the figure 8 embodiment, such as the depth of foot part, in order to comply with the provisions of Article 123(2) EPC."

3.2 Since the appellant did not comment on this opinion, neither in writing, nor in oral proceedings, the Board confirms after further consideration that the subject-matter of claim 13 according to the main request does not extend beyond the content of the application as filed for the reasons indicated, above.

4. **Main request - novelty**

4.1 In sections 2.3 and 2.4 of its communication pursuant Article 15(1) RPBA, the Board considered the subject-matter of claim 1 to differ from the system according to D8 in feature 1P for the following reasons:

"*2.3 ... A hinged movement of the leg is a pivoting or rotational movement of the leg about an axis of rotation defined by the flexible resilient joint between the leg and the foot and having one degree of freedom.*

2.4 Looking at figure 6 of D8 alone, such a hinged movement of the leg 2121 with regard to the foot 2123 seems basically to be possible. But in the mounted state shown in figure 3, the lower end section of the leg appears to be clamped between and thus fixed by walls of the (radially outer) support 2111 and the (radially inner) electrode fixing seat 2113, see figures 3 - 5, paragraph [0029], whereby hinged movement of this end section about the joint is prevented. It appears to be a matter of speculation how

exactly the leg 2112 will flex out of and into the depicted position at an angle of about 90° with regard to the foot. The point is, however, that such movement, even if it occurred as proposed by the appellant on page 12 of the appeal brief, would be a deformation of the flexible, resilient leg, not a hinged movement of the leg about the flexible, resilient joint, as claimed."

As the appellant referred during oral proceedings merely to their written submissions prior to the issue of the communication, the Board confirmed after deliberation that the subject-matter of claim 1 is new with regard to the disclosure of D8. The same applies for corresponding reasons for the the subject-matter of claim 13.

4.2 It is undisputed that D9 discloses an electronic vapour provision system and a control unit comprising features 1A/13A to 1M/13M of claims 1 and 13, respectively. When a cartridge 1 is pushed into a control unit 2, a first latch member 311 eventually snaps into a groove 41 of corresponding shape which represents thus the second latch member, figures 1, 4, paragraph [0038]. The first latch member 311 forms part of a leg 312, which, together with a foot 313, builds a latching element, paragraphs [0039], [0044] of D9a.

4.2.1 The first latch member 311 cannot be removed inadvertently from its engaged position, but is secured therein. If a user just grabs the cartridge 1 with one hand and the control unit 2 with the other one and tries to pull them apart, the shoulder of the first latch member 311 abuts against a corresponding flange built by the groove 41 as well as against a border of a hole 315 in the wall of a so-called "release member"

32.
The second latch member, which is the groove 41, is therefore not positioned and configured to disengage with the first latch member 311 when the cartridge and the control unit are pulled apart, i.e. by or upon a relative linear movement of cartridge and control unit as required by feature 1N.

4.2.2 Disengagement can only be initiated by first moving the release member 32 linearly with regard to the latching element 313, 314, both being part of the cartridge, thereby closing the gap 38 and pushing the first latch member 311 radially inwardly out of the groove 41, figures 2, 5, paragraphs [0045], [0046]. Only after disengagement having been completed in this way, is relative movement of the cartridge 1 and the control unit in the sense of pulling them apart from each other enabled. Even if the relative movement of the release member 32 was considered to be carried out by some sort of pulling action as in the case of a garden hose coupling, it would be the release member 32, which was configured to disengage the first and second latch members from each other, not specifically the second (or first) latch member configured to disengage from the first (or second) latch member upon pulling as claimed in claim 1 (or claim 13).

4.2.3 In the embodiment of figure 2, the relatively thin leg 312 extends from the more massive foot 313 at a joint. When a radially inwardly directed force is applied on the first latch member 311 located at the opposite end of the leg 312, the leg will in response pivot radially inwardly about the joint acting as a hinge, because in this position the maximum bending moment and leverage concurs with a transition to greater structural stiffness of the foot portion.

The embodiment of figure 2 comprises thus also features 1O and 1P.

4.2.4 In contrast to the embodiment of figure 3, there is no obstacle in the form of a second electrode 34 impeding such hinged movement. To the contrary, the free space allowing inward displacement of the leg 312 is explicitly described and depicted as being different in the two embodiments. Although the kind of wedge-shaped "third" space 37 (probably 35 in figure 3) might not unambiguously be seen as reaching up to the joint for enabling a hinged movement of the leg, this is clearly the case for the large tube-shaped "second" space 35 in figure 2 (paragraphs [0058] and [0053], respectively). From the fact that the release member 32 and the latching mechanism 31 cooperate in the same manner in both embodiments according to paragraph [0056], i.e. at the radially outer side of the legs 312, it cannot be concluded that the spaces at the radially inner side of the legs allowing the radially inward movement of the latter are also the same.

4.2.5 For the above reasons, the subject-matter of claim 1 and correspondingly that of claim 13 is new with regard to the disclosure of D9.

5. **Main request - inventive step**

5.1 As stated above in points 4.2.1 and 4.2.2, the subject-matter of claims 1 and 13 differs from the system and the control unit according to D9 in feature 1N and 13N, respectively, i.e. in that the second (first) latch is configured to disengage (already) with the first (second) member when the cartridge and the control unit are pulled apart.

5.2 The technical effect of the differing feature is that the cartridge and the control unit can be disconnected from one another simply by a linear motion to pull them apart. Consequently, the objective problem to be solved can be considered as rendering the disconnection more comfortable and straight-forward.
That the release member 32 can be omitted in D9 seems already to form part of a solution of this problem. This is why the problem cannot be defined as reducing the number of parts in the device of D9. Moreover, such a more general problem would have a lot more possible solutions so that the idea of leaving apart specifically the release member appears to be motivated by hindsight only.

5.3 However, in order to solve the objective problem, it seems to be an obvious prerequisite to get rid of the release member 32 that needs to be separately operated to achieve disengagement of the latch member, before the pulling action.
The question is then, how the latching element itself would have to be configured in this case for allowing easier disconnection of control unit and cartridge whilst still ensuring a connection, which is less secure but still sufficiently strong to keep both parts together.

5.4 D9a itself seems to teach in paragraphs [0046], [0007] that an inclined or curved surface 316 of the latch member converts part of an axial force applied to the latch member 311 to a radial force driving the leg 311 radially inward and thereby unlocking the latch member 311 from the groove 41. The skilled person would recognise that this principle would work in both directions, not only for connection, but also for

disconnection. However, this would rather discourage the skilled person from its analogous application for unlocking by providing a further, oppositely inclined surface on the first latch member 311. This is because the easy engagement obtained by the shape of the latch member 311 in combination with the flexibility of the relatively long leg 312 would be mirrored in an easy disengagement, which might even occur inadvertently.

5.5 D8 offers an alternative, but structurally similar latching element 212 as a solution meeting both requirements of a simple yet strong enough connection without the need of an additional release member. As with the latching element of D9 (see paragraph [0044] of D9a), it has a ring-shaped foot portion 2123 from which four legs 2121 extend, see figure 6. The legs are, however, shorter levers compared to those of D9 and require thus the application of a higher force to the first latch members 2122 in order to move them in and out of their seats 112, especially as the legs 2121 and feet 2123 are firmly held at their respective joints in a support preventing a hinged movement, see point 4.1, above. Furthermore, the "bulge" or bowl shaped latch member 2122 is received in a recess 112 of corresponding shape, whereas the groove 41 contacts the latch member 311 of D9 only along its outer, mostly inclined surface 316. Due to this configuration, "it needs to take a certain amount of strength to separate" the first and second latch members of D8 from each other (paragraph [0026] of D8a), which in turn ensures a safe fixation of the control unit to the cartridge.

5.6 For the above reasons, the skilled person would not transfer only a single aspect of D8's latching element, such as the corresponding bowl shape of the latch members, to the device of D9 in order to solve the problem, but the complete teaching including the more "sturdy" legs and the clamping at the joint.
Such obvious modification of D9 would, however, not lead to the subject-matter of claims 1 and 13, because feature 1P would not be present.
Therefore, the subject-matter of claims 1 and 13 involves an inventive step in the light of the disclosure of D8 and D9.

6. **Result**

Since the Board agrees with the findings of the Opposition Division, according to which the patent in amended form of the main request meets the requirements of the EPC, in particular those of Articles 54, 56 and 123(2), the opponent's appeal against the corresponding interlocutory decision of the Opposition Division to maintain the patent in this amended form has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Magouliotis C. Heath

Decision electronically authenticated