
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GCE GAS CONTROL EQUIPMENT INC.,

Petitioner,

v.

VBOX, INC.,

Patent Owner.

Inter Partes Review No. IPR2023-00527
Patent No. 11,357,628

PATENT OWNER'S SUR-REPLY

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I. The Removal Direction Limitations

Petitioner has misread the removal direction limitations and has failed to establish that *Deane*, or any other reference, teaches them. The teachings of *Deane* prevent Petitioner from being able to fix their fundamental mistake.

The removal direction limitations are: “a separation cartridge selectively removable from the receptacle by movement relative to the receptacle in a first direction.” As a matter of basic sentence structure, “by movement relative to the receptacle in a first direction” modifies how the separation cartridge is “selectively removable from the receptacle.” Plainly, the claims require the separation cartridge to be able to be moved relative to the receptacle in the first direction. There is no claim construction sought or needed here. Rather, *Deane* simply does not teach the removal direction limitations at least because the chassis 202 prevents movement of the alleged separation cartridge in the alleged first direction. POPR at pages 33-44.

Petitioner assumes the removal direction limitations may be met by any relative movement between a receptacle and a separation cartridge, including when the receptacle moves while the separation cartridge is stationary. But, the removal direction limitations are more specific than that. When the Board recently addressed related claims with nearly identical language, the Board noted “[o]n the record before us, therefore, the Petitioner does not provide sufficient information to demonstrate that *Deane* discloses or would have suggested that the asserted

separation cartridge is selectively removable by movement of the separation cartridge relative to the receptacle in a first (downward) direction opposite a second (upward) direction in which the asserted inlet and outlet are oriented.” *GCE Gas Control Equipment Inc., v. VBox, Inc.*, IPR2023-00326, Paper 10 at 35-36 (PTAB June 28, 2023). The Board’s reading of the removal direction limitations is the correct one. Petitioner has provided no additional evidence in this proceeding relating to the removal direction limitations. *Cf.* Petition at pages 47-57 with IPR2023-00326, Paper 1 at pages 32-46. Thus, the Petition falls short of the threshold for institution. 35 U.S.C. § 314(a).

Each of Petitioner’s arguments raised for the first time on Reply can be readily dismissed. Petitioner’s arguments stem from the incorrect assumption that the removal direction limitations can be met by any relative movement between the separation cartridge and receptacle. Reply at page 1. However, mere “relative movement” is not what the claims say. The claims require the separation cartridge to be selectively removable “by movement relative” to the receptacle, which is critically different.

While Petitioner alleges that Patent Owner’s position renders the claims superfluous (Reply at page 1), Patent Owner’s position is consistent with the specific language of the claims. It is actually Petitioner’s overly broad interpretation that

strips the words in the claims of any real meaning, and makes the removal direction limitations superfluous.

In an effort to support its overly broad interpretation of the claims, Petitioner has envisioned an unclaimed and undisclosed use of '628 Patent in which one would hold the separation cartridge inverted, and stationary, during removal. Reply at page 2 (Petitioner's Example Y). Petitioner's contrived Example Y does not modify the plain meaning of the claims, nor come within the scope of the claims, because the separation cartridge is not the moveable component.

As a fallback, and recognizing the problems with applying the proper reading of the removal direction limitations to *Deane*, Petitioner alleges that the adsorbent columns 508a, 508b (alleged separation cartridge) and manifold 512 (an alleged receptacle) of *Deane* could first be removed together from the chassis 202 prior to disconnecting these components. Reply at page 3. This theory is not discussed in the Petition. Petition at pages 47-57. What's more, this allegation is not supported by the disclosure of *Deane*. Even if one could remove the manifold 512 and columns 508a, 508b of *Deane* as a unit (which is not taught by *Deane* and is pure conjecture on the part of Petitioner's attorneys), the manner by which this sub-unit would then be disassembled is also not taught by *Deane* and is another, deeper layer of attorney conjecture. In reality, all *Deane* teaches that is even remotely relevant to Petitioner's hypothetical is that when the screws connecting its manifold 512 to its adsorbent

columns 508a, 508b are removed, the manifold 512 separates into two plates 802, 804. Ex. 1004 at ¶ [0071] and Figure 3; POPR at page 41. So, when detaching *Deane*'s manifold from the columns, there would be two unsecured plates sitting atop the columns. Even if these disjointed plates could still be considered a receptacle, one would likely desire to immediately remove those loose plates from the columns, as opposed to moving the columns relative to those plates. Therefore, there would still be no movement of the alleged separation cartridge relative to the alleged receptacle.

Petitioner next refers to an amorphous *Deane/Berntson* combination. Reply at page 4. As explained in the POPR, one would not be motivated to modify *Deane* in view of *Berntson*, and, even if there was a motivation, *Berntson* does not teach anything relating to a direction of cartridge removability. POPR at pages 43-44. Petitioner states, for the first time, that “applying *Berntson*'s basic teaching to *Deane* as Dr. Kneabel opines would result in a cartridge removable through the POC bottom.” Reply at page 4. This statement is completely unsupported. The cited portions of the Kneabel Declaration do not address whether *Berntson* teaches removal of any alleged cartridge through the bottom of its POC. Ex. 1003, ¶¶ 349-350. Thus, the statement is pure attorney conjecture.

Petitioner alleges that the prosecution history of the related '669 Patent suggests Examiner Vasat believed the removal direction limitations were taught by

Deane. Reply at pages 4-5. As explained in the POPR, Examiner Vasat made no such finding. POPR at page 15. Rather, Examiner Vasat was well aware of *Deane* and still decided to allow the '628 Patent. *Id.*

II. A Full *Fintiv* Analysis Favors Discretionary Denial

Patent Owner continues to rely on the *Fintiv* analysis set forth in its POPR. The corresponding district court case is not currently stayed, and 3B plans to oppose any motion for stay. Finally, the weak merits of the Petition continue to favor denial.

Respectfully Submitted,

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CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that the foregoing document is no more than five pages, as authorized by the Board in its June 28, 2023 email, excluding a table of contents, a table of authorities, this certificate of compliance, and a certificate of service.

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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing document was served electronically via email on July 13, 2023 in its entirety on the following:

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Petitioner has consented to electronic service.

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