

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AVX CORPORATION,
Petitioner,

v.

GREATBATCH LTD.,
Patent Owner.

Case IPR2015-00710
Patent 7,327,553 B2

Before MICHAEL P. TIERNEY, JON B. TORNQUIST, and
ELIZABETH M. ROESEL, *Administrative Patent Judges*.

TORNQUIST, *Administrative Patent Judge*.

DECISION

Granting Petitioner's Request for Rehearing
and Instituting *Inter Partes* Review
37 C.F.R. § 42.71 and 37 C.F.R. § 42.108

I. INTRODUCTION

AVX Corporation (“Petitioner”) filed a Petition (Paper 3, “Pet.”) to institute an *inter partes* review of claims 1–20 of U.S. Patent No. 7,327,553 B2 (Ex. 1001, “the ’553 patent”), to which Greatbatch, Ltd. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”). In a Decision on Institution (Paper 9, “Dec.”), we denied institution of *inter partes* review as to all challenged claims of the ’553 patent.

Pursuant to 37 C.F.R. § 42.71(d), Petitioner filed a Request for Rehearing (Paper 10, “Req. Reh’g”) seeking reconsideration of our Decision on Institution. For the reasons that follow, Petitioner’s Request for Rehearing is *granted-in-part* and *denied-in-part*.

II. REQUEST FOR REHEARING

A. Legal Standard

A request for rehearing “must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.” 37 C.F.R. § 42.71(d). “The burden of showing a decision should be modified lies with the party challenging the decision.” *Id.* “When rehearing a decision on petition, a panel will review the decision for an abuse of discretion.” 37 C.F.R. § 42.71(c).

B. Claim Construction

Each challenged claim of the ’553 patent requires, either directly or indirectly, a “laminar delamination gap” defined by an insulator and a washer. *See* Ex. 1001, 9:34–36. In the Decision on Institution, we rejected both Petitioner’s and Patent Owner’s proposed constructions of the term “laminar delamination gap,” and construed the term to mean “a very thin

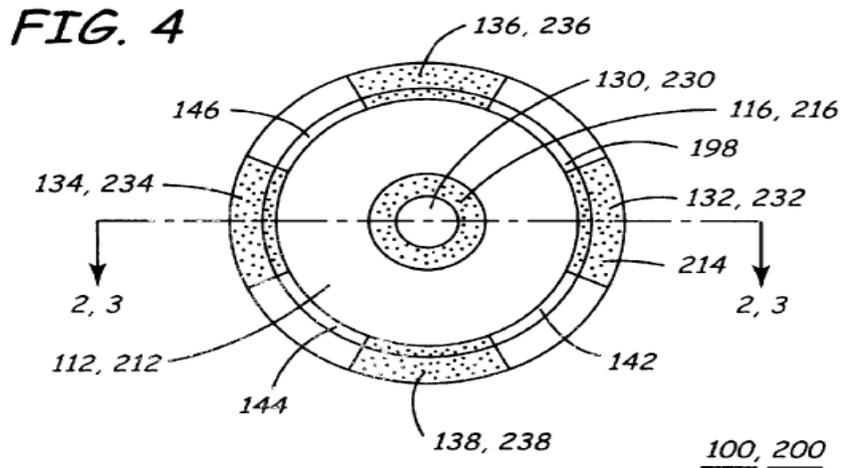


Figure 2 is a side cross-section view taken along line 2–2 of Figure 4 of Fraley.

Figure 4 is a top plan view of the filtered feedthrough of Figure 2. The Petition identifies space 140 in Figure 2—cooperatively defined by insulator 122 and washer 124—as a “laminar delamination gap.” Pet. 34–35 (citing Ex. 1002 ¶ 52 (pp. 43–44)). With respect to the size of the gap, the Petition asserts that Fraley discloses that gaps provided in the feedthrough “can be minute in cross-section and not visible to the eye,” and Dr. Irazoqui testifies that “[i]t would be apparent to one of ordinary skill in the art that a minute gap as in Fraley discloses a very thin space.” *Id.* at 37 (citing Ex. 1003, 7:31–32); Ex. 1002 ¶ 52 (p. 45) (citing Ex. 1003, 7:31–32 (noting with respect to Figure 4 that the gap(s) “can be minute in cross-section and not visible to the eye”)).

In the Decision on Institution, we concluded that “Petitioner and its declarant present no argument or evidence sufficient to persuade us that Fraley’s disclosure that the gaps ‘can be minute in cross-section and not visible to the eye’ pertains to a gap between the insulator and a washer or to any of spaces 140, 240, 340, 440 . . . that Petitioner identifies as a ‘laminar

delamination gap.” Dec. 19. And, because the Petition relied solely on Fraley as disclosing the claimed “laminar delamination gap,” we declined to institute *inter partes* review with respect to all challenged claims. *Id.*

In its Request for Rehearing, Petitioner contends that the Board overlooked evidence presented in the Petition, as well as in the supporting declaration testimony of Dr. Irazoqui, that Fraley’s disclosure of “minute” gaps includes the spaces “located between the insulator 122/222 and the washer 124/224.” Req. Reh’g. 9. For example, with reference to annotated Figure 2, reproduced below,² Petitioner contends it argued in the Petition that gaps 142 . . . 148 of Fraley define “a gas flow passage” that “extends from the upper, inner surface of insulator 122” and passes through and encompasses space 140 and “the gap between insulator 122 and spacer (i.e., washer) 124.” *Id.* at 4–5 (citing Ex. 1003, 7:18–21, 7:27–29; Pet. 35; Ex. 1002 ¶ 52 (p. 44)).

² Annotated Figure 2 was not submitted in the Petition or with Dr. Irazoqui’s declaration testimony. We are persuaded, however, that annotated Figure 2 depicts the structure described and cited by Petitioner in the Petition. *See* Pet. 35–37 (citing Ex. 1003 (7:18–21, 7:21–29, 7:31–32); Ex. 1002 ¶ 52 pp. 44–45).

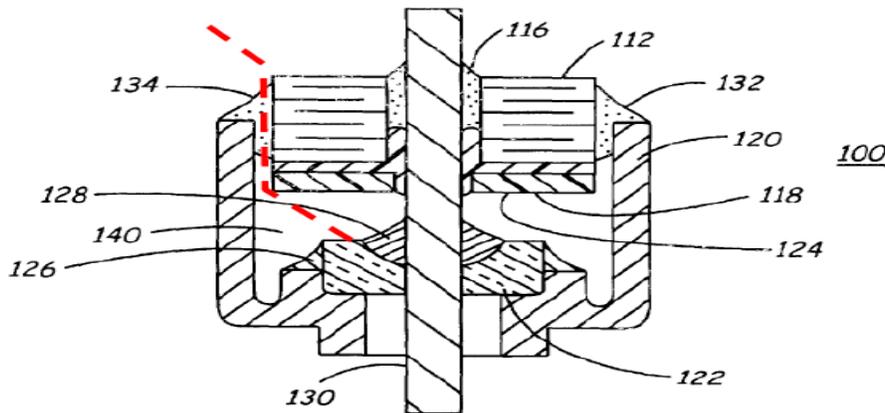


FIG. 2

Figure 2 is a side cross-section view taken along line 2–2 of Figure 4 of Fraley as annotated by Petitioner.

According to Petitioner, because “the gas passageway defined by the gaps 142 . . . 148 passes through and encompasses space 140, and . . . the gap between insulator 122 and spacer (*i.e.*, washer) 124,” one of ordinary skill in the art would understand that space 140 is a “very thin space.” *Id.* at 4, 11.

When the Petition and Dr. Irazoqui’s testimony are considered in view of the Request for Rehearing, we agree that we overlooked Petitioner’s argument that the “gas flow passage” of Figure 2 extends from the upper surface of insulator 122 to the upper exterior of feedthrough 100, *i.e.*, traverses the space between insulator 122 and washer 124. Pet. 35 (citing Ex. 1003, 7:18–21, 7:27–29). Given this evidence associating the “minute” gaps with the space between insulator 122 and washer 124, and in light of our current construction of “laminar delamination gap” requiring no specific dimensions for a “very thin gap,” we are persuaded that the evidence of record sufficiently supports Dr. Irazoqui’s testimony that one of ordinary skill in the art would understand that Fraley discloses a “laminar

delamination gap,” under a construction requiring a “very thin space.”³ Pet. 37–38; Ex. 1002 ¶ 52 (p. 45).

Accordingly, for the reasons discussed below, we grant-in-part and deny-in-part Petitioner’s Request for Rehearing and institute *inter partes* review on the grounds set forth below.

III. INSTITUTION OF *INTER PARTES* REVIEW

A. *Anticipation by Fraley — Claims 1–20*

Petitioner contends that claims 1–20 of the ’553 patent are anticipated by Fraley. Pet. 19–46. In support of its argument, Petitioner relies upon the testimony of Dr. Irazoqui. Ex. 1002 ¶ 52. Patent Owner contests Petitioner’s arguments. Prelim. Resp. 19–28.

1. *Claims 1 and 16*

Petitioner argues that each limitation of claims 1 and 16, including a “laminar delamination gap,” is disclosed in Figures 2 and 4 of Fraley. Pet. 19–39. Although the majority of Patent Owner’s arguments with respect to the “laminar delamination gap” in Fraley are directed to a claim construction we do not adopt, Patent Owner does assert that the size of the gap between insulator 122 and washer 124 in Fraley would be “substantial.” Prelim. Resp. 23–26. Patent Owner asserts that, as depicted in Figure 2 of Fraley, brazing preform 128 is disposed between insulator 122 and washer 124. Patent Owner further asserts that Exhibit 2008 teaches that the specific size of the “braze-fillet (meniscus)” upon heating the preform “is NOT a

³ To be sure, Petitioner’s arguments were not presented in the Petition or the Declaration with great clarity or precision. We acknowledge, however, that Petitioner’s arguments were presented in the alternative and directed to a claim construction neither party requested in this proceeding.

controllable part of the brazing process.” *Id.* at 23–24. Thus, Patent Owner contends there “must be a substantial distance between the top of braze preform 128 and the bottom surface of washer 124, at least to allow for variation in the height of the meniscus resulting from heating the braze preform 128.” *Id.* at 24 (citing Ex. 2008, 1).

We are not persuaded by Patent Owner’s argument because Exhibit 2008, relied upon by Patent Owner to support its argument, instructs that “[a] braze fillet should ideally be very small.” Ex. 2008, 1; *see also id.* at 2 (“Keep the fillet small. Remember, all the good things about a braze joint are happening INSIDE the joint, not in the outside fillets.”). Thus, on this record, regardless of any variation in the size of the braze-fillet, Patent Owner’s evidence and attorney argument do not demonstrate that the space between insulator 122 and washer 124 would be “substantial.”

Based on the foregoing, and upon review of Petitioner’s and Patent Owner’s arguments, the evidence of record, and the supporting testimony of Dr. Irazoqui, we are persuaded that Petitioner demonstrates a reasonable likelihood that claims 1 and 16 of the ’553 patent are anticipated by Fraley.

2. Claims 2, 7, and 17

Claims 2, 7, and 17 require an adhesive layer “formed from a liquid polymer, an adhesive washer, or a thermal plastic adhesive coated material.” Ex. 1001, 9:39–42, 9:62–10:10, 11:10–13. Petitioner, supported by the testimony of Dr. Irazoqui, contends the claim term “formed from a liquid polymer” is a product-by-process limitation that does not add structure to the claimed apparatus. Pet. 18, 40; Ex. 1002 ¶ 43. Petitioner contends, therefore, that claims 2, 7, and 17 are properly read as requiring only a “polymer adhesive layer,” which Petitioner contends is disclosed in Fraley.

Pet. 39–40 (citing Ex. 1003, 10:2–8 (“non-conductive adhesive 118, 218, 318 may be . . . [a] polymeric non-conductive adhesive”). Patent Owner contends that Fraley does not anticipate claims 2, 7, and 17 because it does not disclose a “laminar delamination gap.” Prelim. Resp. 28–29.

“A product-by-process claim is ‘one in which the product is defined at least in part in terms of the method or process by which it is made.’”

SmithKline Beecham Corp. v. Apotex Corp., 439 F.3d 1312, 1315 (Fed. Cir. 2006) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 158 n. (1989)). In general, “[i]f the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985). There is an exception to this general rule, however, when “the process by which a product is made imparts ‘structural and functional differences’ distinguishing the claimed product from the prior art.” *Greenliant Sys., Inc. v. Xicor LLC*, 692 F.3d 1261, 1268 (Fed. Cir. 2012) (quoting *Amgen Inc. v. F. Hoffman-La Roche Ltd.*, 580 F.3d 1340, 1369 (Fed. Cir. 2009)).

Here, Patent Owner does not dispute (on this record) that the term “formed from a liquid polymer” is a product-by-process limitation, nor does Patent Owner present persuasive evidence to counter Petitioner’s assertion that forming an adhesive layer from a “liquid” polymer does not impart structural differences to the resulting adhesive layer. Thus, on this record, we do not understand the term “formed from a liquid polymer” to structurally or functionally distinguish the “adhesive layer” of claims 2, 7, and 17 from the cited art. Given this understanding, and upon review of Petitioner’s and Patent Owner’s arguments, we are persuaded that Petitioner

presents sufficient evidence to demonstrate a reasonable likelihood that claims 2, 7, and 17 of the '553 patent are anticipated by Fraley.

3. Claims 5, 10, and 20

Claims 5, 10, and 20 require a washer “formed from a nonconductive polyimide sheet or a thin sheet of alumina.” Pet. 44–45. Petitioner contends the term “formed from . . . a sheet” is a product-by-process limitation that does not impart any structural characteristics to the claimed washer. *Id.* at 19, 44–46. Petitioner contends, therefore, that claims 5, 10, and 20 are properly construed to require only that “the washer comprises nonconductive polyimide or alumina,” which Petitioner contends is expressly disclosed in Fraley. *Id.* at 44–45 (citing Ex. 1003, 10:24–25 (“The spacer 124, 224, 324 may be fabricated of polymeric materials, e.g., polyimide.”)); Ex. 1002 ¶ 45.

Patent Owner does not address Petitioner’s product-by-process arguments, or present evidence that forming a washer from a “sheet” of polyimide or alumina imparts structural and functional differences to the resulting washer. Thus, on this record, we understand the term “formed from a . . . sheet” to be a product-by-process limitation that does not structurally or functionally distinguish the challenged claims from the cited art. Given this understanding, and upon review of Petitioner’s and Patent Owner’s arguments, we are persuaded that Petitioner presents sufficient evidence to demonstrate a reasonable likelihood that claims 5, 10, and 20 are anticipated by Fraley.

4. Claims 6 and 11

Claims 6 and 11 depend from independent claims 1 and 7, respectively, and require that “the AIMD (active implantable medical device) is a cardiac pacemaker, a cardiac sensing system, a neurostimulator,

a cochlear implant . . . or a prosthetic device.” *See* Ex. 1001, 6:54–61. Petitioner contends that Fraley explicitly discloses feedthrough capacitors for use with “cardiac pacemakers” and brain “stimulators,” as recited in claims 6 and 11. Pet. 46 (citing Ex. 1003, 1:20–24; Ex. 1002 ¶ 54 (pp. 53, 56, 59, 60)). Patent Owner does not address Petitioner’s arguments with respect to claims 6 and 11.

Upon review of Petitioner’s arguments, evidence, and supporting testimony, we are persuaded that Petitioner demonstrates a reasonable likelihood that claims 6 and 11 are anticipated by Fraley.

5. Claims 3, 4, 8, 9, 18, and 19

Petitioner asserts that the embodiment depicted in Figures 7 and 9 of Fraley discloses the limitations of dependent claims 3, 4, 8, 9, 18, and 19 of the ’553 patent. Pet. 41–44; Ex. 1002 ¶ 52 (pp. 48–52). In the Decision on Institution, we concluded that Petitioner did not identify a “laminar delamination gap” in Figures 7 or 9 of Fraley that is cooperatively defined by an insulator and a washer. Dec. 20. The Request for Rehearing does not identify any arguments or evidence in the Petition that Petitioner contends we misapprehended or overlooked with respect to the laminar delamination gap in Figures 7 or 9, or otherwise explain where the “laminar delamination gap” is disclosed in Figures 7 or 9 of Fraley. Accordingly, we deny the Request for Rehearing with respect to anticipation of claims 3, 4, 8, 9, 18, and 19 by Fraley.

6. Claims 12–15

Petitioner does not request rehearing with respect to our decision denying institution of claim 12 as anticipated by Fraley. As claims 13, 14,

and 15 depend, directly or indirectly, from claim 12, we likewise do not revisit our decision denying institution with respect to these claims.

7. Conclusion

Based on the foregoing, we are persuaded that Petitioner has demonstrated a reasonable likelihood that claims 1, 2, 5–7, 10, 11, 16, 17, and 20 of the '553 patent are anticipated by Fraley; we are not persuaded that claims 3, 4, 8, 9, 12–15, 18, and 19 of the '553 patent are anticipated by Fraley.

B. Obviousness of Claims 2, 7, and 17 over Fraley and Brendel⁴

As noted above, claims 2, 7, and 17 each recite that “the adhesive layer is formed from a liquid polymer, an adhesive washer, or a thermal plastic adhesive coated material.” Pet. 47. To the extent that the term “formed from a liquid polymer” imparts structural characteristics to the claimed “adhesive layer,” Petitioner contends claims 2, 7, and 17 would have been obvious in view of Fraley and Brendel. *Id.*

1. Brendel

Brendel discloses feedthrough capacitor terminal pin subassemblies for use in implantable medical devices, such as cardiac pacemakers. Ex. 1004, 1:12–15. Brendel explains that a “unique design constraint affecting filtered hermetic terminals for implantable medical devices is that these devices . . . are subjected to a great deal of heat and thermal stress.” *Id.* at 16:6–11. Thus, any insulative material within the capacitor assembly “has to withstand very high temperatures.” *Id.* at 16:11–13. According to Brendel,

⁴ Brendel et al., US 6,765,780 B2, issued July 20, 2004, Ex. 1004.

one insulative material that is capable of withstanding these high temperatures “is a unique thermal plastic polyimide supportive tape (coated with thermalsetting adhesive) manufactured by Ablestik Electronic Materials and Adhesives . . . known as Ableloc 5500.” *Id.* at 16:13–18.

2. *Analysis*

Petitioner asserts that one of ordinary skill in the art would have found it obvious to substitute Brendel’s “thermal polyimide supportive tape coated with thermal setting adhesive” for Fraley’s epoxy layer, because such a substitution would constitute replacing one known element for another known element, for the same purpose, to achieve a predictable result. Pet. 48–49 (citing Ex. 1004, 16:3–19), 50 (asserting that replacing Fraley’s epoxy layer with Brendel’s polyimide supportive tape would result “in the predictable use of prior art elements according to their established functions”). Patent Owner contends that Brendel’s disclosure of a “thermal plastic adhesive coated material” does not remedy Fraley’s failure to disclose the claimed “laminar delamination gap.” Prelim. Resp. 28–29.

For the reasons discussed above, on this record we are persuaded that Fraley discloses a “laminar delamination gap.” In addition, upon review of Petitioner’s remaining arguments, we are persuaded that Petitioner demonstrates a reasonable likelihood that claims 2, 7, and 17 of the ’553 patent would have been obvious over Fraley and Brendel.

C. Obviousness of Claims 3, 8, 13, and 18 over Fraley and Applicant Admitted Prior Art

Claims 3, 8, 13, and 18 require that “the conductive terminal pin comprises a corresponding plurality of conductive terminal pins extending respectively through the insulator and the capacitor in conductive relation with the first set of electrode plates.” Pet. 51; Ex. 1001, 9:43–47. Petitioner

argues this limitation, to the extent it is not disclosed explicitly in Fraley, is disclosed in the Applicant Admitted Prior Art. *Id.* at 52–53. Petitioner further contends that it would have been obvious to incorporate this disclosed structure into the Figure 9 embodiment of Fraley. *Id.*

Petitioner does not present persuasive evidence, however, to show that the Applicant Admitted Prior Art discloses a “laminar delamination gap.” Thus, for the reasons discussed above, we are not persuaded that the combination of Fraley and the Applicant Admitted Prior Art discloses or suggests every limitation of challenged claims 3, 8, 13, and 18.

*D. Obviousness of Claims 5, 10, and 20 over Fraley and Snow*⁵

Claims 5, 10, and 20 each recite “the washer is formed from a nonconductive polyimide sheet or a thin sheet of alumina.” Pet. 57. To the extent that the term “formed from a . . . sheet” imparts unique structural or functional characteristics to the claimed washer, Petitioner contends that claims 5, 10, and 20 would have been obvious over Fraley and Snow. *Id.*

1. Snow

Snow is directed to packaging and mounting beam-lead diodes in a stripline, coaxial, or waveguide assembly. Ex. 1005, 1:6–8. Snow discloses surrounding a diode with a polyimide insulating washer “which has been punched from a sheet of . . . polyimide material.” *Id.* at 2:42–43, 2:62–64. Snow further discloses that such polyimides “are polymers with excellent thermal capability and resistance to temperature as high as 600 F.” *Id.* at 2:43–47.

⁵ Snow, US 4,246,556, issued Jan. 20, 1981, Ex. 1005.

2. Analysis

Petitioner contends that Fraley discloses the use of non-conductive washers made from polyimide, but does not disclose explicitly that the polyimide washer is formed from a “polyimide sheet.” Pet. 57. Petitioner contends, however, that forming the washer from a “non-conductive polyimide sheet” would have been obvious in light of Snow. *Id.* Petitioner reasons that manufacturing washers from a sheet of polyimide was known in the art—as evidenced by Snow’s express disclosure—and the combination of Fraley and Snow would amount to merely the predictable use of prior art elements according to their established functions. *Id.* at 58; Ex. 1002 ¶¶ 90–91 (citing Ex. 1005, 2:62–64). Patent Owner asserts that claims 5, 10, and 20 would not have been obvious over Fraley and Snow because Snow does not “cure the fact that Fraley does not disclose the claimed ‘laminar delamination gap.’” Prelim. Resp. 29–30.

For the reasons discussed above with respect to a “laminar delamination gap” and Fraley, and upon review of Petitioner’s and Patent Owner’s arguments, on this record we are persuaded that Petitioner demonstrates a reasonable likelihood that claims 5, 10, and 15 would have been obvious in view of Fraley and Snow.

IV. ORDER

In light of the foregoing, it is

ORDERED that Petitioner’s Request for Rehearing is *granted-in-part* and *denied-in-part*;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314 an *inter partes* review of the ’553 patent is hereby instituted on the following grounds:

Whether claims 1, 2, 5–7, 10, 11, 16, 17, and 20 of the '553 patent are unpatentable under 35 U.S.C. § 102 as anticipated by Fraley;

Whether claims 2, 7, and 17 of the '553 patent are unpatentable under 35 U.S.C. § 103 as obvious over Fraley and Brendel; and

Whether claims 5, 10, and 20 of the '553 patent are unpatentable under 35 U.S.C. § 103 as obvious over Fraley and Snow;

FURTHER ORDERED that the trial is limited to the grounds identified above and no other grounds are authorized; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '553 patent is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of trial.

ROESEL, *Administrative Patent Judge, dissenting.*

I respectfully dissent from the grant of rehearing and the institution of *inter partes* review. In my view, the majority errs by relying upon argument and evidence that are not presented in the Petition, contrary to the requirements of 35 U.S.C. § 314(a) and 37 C.F.R. § 42.108(c), and that are not sufficient to institute review in any event.

The Petition attempts to show a reasonable likelihood that Fraley⁶ anticipates claims 1–20 of the ’553 patent⁷ based upon a construction for “laminar delamination gap” proposed by Petitioner for purposes of seeking *inter partes* review. Pet. 7–13, 33–37. Petitioner’s proposed construction omits any requirement for a “very thin” space. *Id.* at 9; *see also* Req. Reh’g 14 (“Petitioner believed that a claim construction that did not include the term ‘very thin’ was more appropriate.”).

The Petition gives short shrift to showing anticipation under a claim construction requiring a “laminar delamination gap” that is “very thin.” Pet. 37–38. The Petition does so even though this requirement is common to the claim constructions proposed by both parties before the district court. Ex. 1009, 42 (Patent Owner’s proposed construction: “A very thin space between layers of material allowing passage of helium gas to the outer edges of the capacitor”); Ex. 1011, 41 (Petitioner’s proposed construction: “a very thin gap on the order of 50 angstroms or so”).

⁶ Fraley et al., US 6,349,025 B1, issued Feb. 19, 2002, Ex. 1003.

⁷ U.S. Patent No. 7,327,553 B2, Ex. 1001.

In the Request for Rehearing, Petitioner does not challenge the Board’s claim construction requiring a “very thin” space, but instead presents a new argument that Fraley discloses a “laminar delamination gap” under that construction. Req. Reh’g 1–13. Petitioner has no legitimate excuse for omitting this argument from the Petition, particularly because it addresses anticipation under a claim construction proposed by both parties prior to submission of the Petition.

Central to the Request for Rehearing is Petitioner’s argument that gaps 142 . . . 148 and 242 . . . 248 of Fraley *encompass* or *include* spaces 140 and 240, respectively, and consequently that Fraley’s description of gaps 142 . . . 148 and 242 . . . 248 as “minute,” Ex. 1003, 7:31–32, 8:13–14, pertains to spaces 140 and 240. Req. Reh’g 2, 3, 4, 5, 7, 8, 9, 10, 12. That argument could not have been misapprehended or overlooked by the panel because it is presented for the first time in the Request for Rehearing.

Gaps 142 . . . 148 and 242 . . . 248 are nowhere discussed in the Petition or Declaration.⁸ These gaps are shown in Fraley Figure 4, which neither the Petition nor Declaration asserts discloses a “laminar delamination gap.” The Petition and Declaration are devoid of any argument or evidence that Fraley’s description of “minute” gaps, Ex. 1003, 7:31–32, 8:13–14, pertains or relates to spaces 140 and 240, which the Petition identifies as a “laminar delamination gap.”

In the Request for Rehearing, Petitioner directs us to page 35 of the Petition and page 44 of the Declaration. Req. Reh’g 4–5, 11–12. Petitioner

⁸ Declaration of Pedro Irazoqui, Ex. 1002.

contends that, by citing column 7, lines 27–29 of Fraley, the Petition and Declaration “establish that the gaps 142 . . . 148 (which define a ‘gas flow passage that extends from the upper-inner surface of insulator 122’) include space 140.” *Id.* at 4–5 (citing Pet. 35; Ex. 1002, 44). I am not persuaded by that argument.

The cited portion of the Petition and the identical text from the Declaration are reproduced below:

Fraley also describes a “space 140” where “helium gas [can] pass through if the insulator 122 or its braze . . . is not hermetic,” and that a “gas flow passage [] extends from the upper, inner surface of insulator 122.” Column 7, lines 18-21 and 27-29. Accordingly, it would be apparent to one of ordinary skill in the art that the spaces 140 and 240 of Fraley are the same as a the [*sic*] claimed “laminar delamination gap,” insofar as both the spaces 140 and 240 of Fraley and the “laminar delamination gap” as claimed provide a layer of space between materials through which helium may pass to an outside edge of the capacitor that is cooperatively defined by a washer and insulator.

Pet. 35; Ex. 1002, 44. This passage addresses whether space 140 is a space through which helium may pass to an outside edge of the capacitor, as set forth in Petitioner’s proposed claim construction. The passage does not address whether spaces 140 or 240 are “very thin,” as required under the claim constructions proposed by the parties before the district court. Dec. 8–12; Ex. 2002, 37. Nor does this passage contend that gaps 142 . . . 148 and 242 . . . 248 include spaces 140 and 240, respectively, as argued for the first time in the Request for Rehearing. Req. Reh’g 2, 3, 4, 5, 7, 8, 9, 10, 12. This passage was not overlooked or misapprehended by the panel, Dec. 18–19, but it does not address the relationship, if any, between spaces 140 and 240 and Fraley’s description of “minute” gaps.

In granting rehearing and instituting *inter partes* review, the majority relies upon an annotated version of Fraley Figure 2 that is presented for the first time in the request for rehearing. Req. Reh'g 4; Maj. Dec. 5. The majority concedes that “[a]nnotated Figure 2 was not submitted in the Petition or with Dr. Irazoqui’s declaration testimony.” Maj. Dec. 5 n.2. Contrary to the majority’s conclusion, annotated Figure 2 does not depict a structure “described and cited by Petitioner in the Petition,” *id.*, at least not for purposes of showing a “laminar delamination gap” that is “very thin.”

Even if Petitioner’s new argument had been presented in the Petition, I am not persuaded that it shows an abuse of discretion or error in the Decision denying review. Petitioner’s new argument and annotation of Fraley Figure 2 are based upon the following passage from Fraley:

The gaps 142, 144, 146, 148, between the outer surface of capacitor 112 and the inner surface of ferrule 120 define a gas flow passage that extends from the upper, inner surface of insulator 122 to the upper exterior of the feedthrough 100. Of course, at least one gap would be sufficient, but any number of gaps can be provided, and the gap(s) can be minute in cross-section and not visible to the eye.

Ex. 1003, 7:25–32. This passage describes gaps 142, 144, 146, 148 as “minute in cross-section and not visible to the eye” (*id.* at 7:31–32), but says nothing about whether space 140 between insulator 122 and washer 124 is minute. Although Fraley states that “gaps 142, 144, 146, 148 . . . define a gas flow passage that extends from the upper, inner surface of insulator 122,” only the gaps, and not the gas flow passage, are described as “minute.” *Id.* at 7:25–32. The Request for Rehearing does not persuade me that the Decision errs in concluding that Fraley’s description of gaps that are “minute in cross-section and not visible to the eye” does not refer to interior spaces

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140 or 240, which Petitioner identifies as a “laminar delamination gap,” but which are nowhere shown or described in Fraley as being minute.

Accordingly, I would deny the Request for Rehearing.

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