

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HUNTING TITAN, INC.

Petitioner

v.

DYNAENERGETICS GMBH & CO. KG

Patent Owner

Case IPR2018-00600
Patent No. 9,581,422

**PATENT OWNER'S REQUEST FOR REHEARING
PURSUANT TO 37 C.F.R. § 42.71(d)**

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I. INTRODUCTION

Pursuant to 37 C.F.R. § 42.71(d), Patent Owner DynaEnergetics GmbH & Co. KG (“DynaEnergetics”) submits this Request for Rehearing in response to the Final Written Decision (“Decision”) entered August 20, 2019 (Paper 42) by the Patent Trial and Appeal Board regarding U.S. Patent 9,581,422 (“the ’422 Patent”). The Board’s determination that proposed substitute claims 16–22 are not patentable, and the resulting denial of Patent Owner’s Motion to Amend, was in error and should be modified. This Request is timely filed within 30 days of the entry of the Board’s Decision, and Patent Owner respectfully requests that an Order be entered finding proposed substitute claims 16–22 patentable over the prior art of record. In addition, Patent Owner has contemporaneously submitted a request for Precedential Opinion Panel review, as this case presents questions of significant import regarding a Patent Owner’s ability to amend claims, PTAB rules and procedures, and due process.

As set forth below, the Board decided upon institution that the claims of the ’422 Patent were more likely than not unpatentable, and thereafter failed to fairly consider the overwhelming evidence to the contrary presented by the Patent Owner during the course of the trial. The Board also failed to fully and fairly consider the Patent Owner’s Motion to Amend that narrowed the challenged claims in a manner that should have prevented a finding of unpatentability. Moreover, rather than

weighing the parties' competing arguments and evidence neutrally, the Board became an advocate for Petitioner by supplementing Petitioner's deficient unpatentability positions. Most egregiously, the Board *sua sponte* found the proposed substitute claims unpatentable as anticipated, even though that argument was never put forward by Petitioner.

II. LEGAL STANDARD

“A party dissatisfied with a decision may file a single request for rehearing” that “specifically identif[ies] 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).

III. ARGUMENT

A. The Board's Decision on DynaEnergetics' Motion to Amend Overlooked or Improperly Disregarded Key Elements of the Amended Claims and Misapprehended Prevailing Law.

The Board's decision to deny DynaEnergetics' Motion to Amend (Paper 21) is flawed for two primary reasons. First, the Board's misapprehension of the claim language led to an erroneous determination that Schacherer disclosed the elements of the proposed substitute claims. Second, the Board improperly raised a new ground of rejection not advanced by Petitioner and deprived DynaEnergetics of the right to address that ground in the trial. The Decision thus violates the Administrative Procedures Act (“APA”) and should be modified.

1. The Board’s Misapprehension of “Received Within” and Overlooking of “Entirely” Resulted in an Erroneous Finding with Respect to the Proposed Substitute Claims.

In a section of the Decision titled “Uncontested Limitations” (Paper 42 at 9–10), the Board asserts that “DynaEnergetics neither refutes nor responds to Hunting Titan’s showing that Schacherer teaches a ‘detonator assembly’ for ‘being . . . received within a perforating gun assembly,’ as recited in the preamble of claim 1.”¹ This finding is incorrect and overlooks the evidence of record, as the cited portions of the Patent Owner Response (at 19–20, 24–29) make clear. Putting aside the fact that Petitioner never asserted that any prior art reference discloses or suggests a “detonator assembly . . . received within a perforating gun assembly,” the entire thrust of DynaEnergetics’ argument against application of Schacherer to the original claims was its failure to show a wireless detonator assembly that is received within (*i.e.*, “plugged into”) a perforating gun assembly (rather, Schacherer described a transfer sub for connecting successive perforating guns). This argument was made repeatedly throughout the record—for the Board to have found that this limitation was “uncontested” required it to ignore or

¹ While this discussion in the Decision is directed to the original challenged claims 1–15, this misapprehension also fatally affected the analysis of the proposed substitute claims 16–22. While DynaEnergetics believes the decision with respect to the original claims is erroneous, it is not requesting rehearing on those claims.

misapprehend extensive evidence, including, without limitation:

- Patent Owner’s Response (Paper 18) at 6 (“Specifically, the claims of the ’422 Patent are directed to an improved detonator assembly for use within a perforating gun assembly. Ex. 2003 ¶ 18; Ex. 2004 ¶ 14.”) (emphasis added); *see also id.* at 10, 11, and 27–28.
- Patent Owner’s Sur-Reply (Paper 27) at 17–18 (“Hunting Titan ignores that the ‘shell’ must be ‘received within a perforating gun assembly’ and thus mistakenly identifies subs and other prior art components as a ‘shell.’ . . . The claimed detonator assembly in the ’422 Patent is plugged into a perforating gun assembly, or in other words, the detonator assembly is received within a perforating gun assembly, as recited in the claims. . . . This arrangement, as DynaEnergetics explained in its Response, clearly distinguishes the perforating gun assembly of the challenged patent from a device such as a ‘tandem sub’ for connecting perforating gun assemblies, as identified by Hunting Titan. Response at 26-29.”) (emphasis added).

This important distinction was again emphasized at the hearing. DynaEnergetics’ counsel noted that Schacherer was “not configured in the way, along with the other elements, to be received by the perforating gun.” Paper 41 at 45–46 (emphasis added); *see also id.* at 36–37. The Board acknowledged the significance of the “received within” language: “So is this received within a perforating gun

assembly? I mean, we do have to make a distinction between a detonator assembly and a perforating gun assembly, correct?” *Id.* at 15–16. Nevertheless, the Board’s decision fails to reckon with or acknowledge these arguments and supporting evidence, simply deeming the limitation “effectively admitted.” Paper 42 at 9.

To the extent this critical limitation was not already clear in the original claims, DynaEnergetics’ Motion to Amend included proposed substitute claims 16–22 to more clearly recite the novel and non-obvious arrangement of the inventive perforating gun assembly described in the ’422 Patent as having a detonator assembly received and contained entirely within the perforating gun housing. *See* Paper 21 at 2, 12. In contrast, as noted in reply in support of the motion, “Schacherer requires the connector (30) containing the selective firing module (32) and detonator (38) be connected to—not contained within—its outer housing (26). Ex. 2027 ¶¶ 16-17.” Paper 28 at 6. Accordingly, the detonator assembly of Schacherer is not received and “contained entirely within the perforating gun housing.” This critical distinction was made abundantly clear using the physical models (Exhibit 2028) of the claimed detonator assembly and of the device described in Schacherer at the oral hearing, because Schacherer indisputably does not have a wholly contained detonator assembly that is

configured to be plugged in, or “received . . . within,” the perforating gun housing.² Petitioner acknowledged as much at the hearing, stating “[n]othing in the [original] claim says it has to be received within a perforating gun housing. . . . They had to add the housing limitation in their amended claims.” Paper 41 at 67. Accordingly, the Board misapprehended or overlooked this distinction, as well as DynaEnergetics’ compelling evidence and arguments in this regard, and therefore the Decision should be modified to find the proposed substitute claims patentable.

2. The Board’s Reliance on New Theories of Invalidity in Its Decision Fails to Adhere to the Procedural Requirements of the APA.

“Despite repeated recognition of the importance of the patent owner’s right to amend during IPR proceedings—by Congress, courts, and the PTO alike—patent owners largely have been prevented from amending claims in the context of IPRs.” *Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1299 (Fed. Cir. 2017) (*en banc*). This was, in part, caused by the PTAB improperly placing the burden of persuasion on the patentee with respect to amended claims, a practice overturned in *Aqua Products*. *Id.* at 1327. Nevertheless, the tide seemingly remained unturned, leading Director Iancu to recently propose a new procedure for claim amendment in the context of IPR proceedings, aimed to “provide valuable insight to both parties [earlier in the proceeding] regarding the merits of the motion to amend.”

² The physical model exhibits (Ex. 2028) are not mentioned in the Decision.

Director Andrei Iancu, Remarks at AIPLA Annual Meeting (Oct. 25, 2018), *available at* <https://www.uspto.gov/about-us/news-updates/remarks-director-iancu-american-intellectual-property-law-association-annual> (referring to pilot program for motions to amend, *see* 84 Fed. Reg. 9497, which began on March 15, 2019).

Rather than heeding the Federal Circuit’s warning and adhering to the spirit of the Director’s remarks, the Board devised its own basis for unpatentability not previously asserted by Petitioner, depriving DynaEnergetics of its right to meaningfully respond. The deficiencies in the Board’s denial of the Motion to Amend are three-fold: (1) Petitioner admits Schacherer fails to disclose certain limitations of the proposed amended claims; (2) DynaEnergetics was afforded no opportunity to respond to the Board’s new theory of unpatentability raised in the Decision; and (3) the Board, not Petitioner, crafted these anticipation arguments. The Board thus failed to adhere to the procedural requirements of the APA.

i. The Board Asserts that Schacherer Anticipates Proposed Substitute Claims 16–22.

It is undisputed that Petitioner lodged only obviousness challenges to the proposed substitute claims 16–22 in opposition to Patent Owner’s Motion to Amend. Paper 28 at 1. This makes sense, because as described above—and as Petitioner recognized—Schacherer does not disclose a wireless detonator assembly configured to be received and contained entirely within a perforating gun housing.

At the hearing, DynaEnergetics correctly pointed out that the obviousness

challenges to the amended claims could not stand because they were unsupported by the record. Paper 41 at 30–32, 59–60. At the hearing, the Board did not dispute that obviousness was the only assertion against the amended claims—instead, the Board argued that there was evidence of obviousness consisting of the references themselves, and that one could find the motivation to combine and “then we weigh it against what your expert said.” *Id.* at 60–61.³ Notably, as in its previous papers, the only arguments Petitioner made at the hearing with respect to the Motion to Amend related to obviousness. *Id.* at 28 (“These new limitations can’t save the amended claims because they’re common in the art and they’re common to a person of ordinary skill in the art. So they can’t render otherwise invalid claims non-obvious.”); *see also id.* at 69–70 (on rebuttal, the only issue raised was secondary considerations, which is relevant only to obviousness, not anticipation).

Because DynaEnergetics compellingly demonstrated that the evidence could

³ DynaEnergetics respectfully disagrees. *See In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) (“Because such conclusory statements cannot satisfy the petitioner’s burden of demonstrating obviousness, the Board did not have sufficient evidence on which to base its legal conclusion of obviousness.”). The Board conceded that the testimony of Petitioner’s expert was “troubling as far as looking to that for a reason to combine.” Paper 41 at 32.

not support a finding of obviousness of the proposed amended claims, the Board *sua sponte* found the claims unpatentable as anticipated, even though Petitioner never asserted this argument. Indeed, the Board’s anticipation analysis is conclusory and vague: “DynaEnergetics’ proposed amendments do not overcome the anticipatory nature of Schacherer’s disclosure.” Paper 42 at 29 (emphasis added); *see also id.* at 28 (reciting “anticipatory nature”). However, the Board elsewhere states that “both of these proposed additions were commonly known to skilled artisans at the time.” *Id.* at 26. The Board also asserts that “none of those additional limitations renders the proposed substitute claims novel or non-obvious over the prior art of record.” *Id.* To be sure, the Board did not find the proposed claims obvious—the decision does not discuss motivation to combine or secondary considerations (despite extensive testimony from Patent Owner that there is none of the former and plenty of the latter) as would be required for such a finding.⁴

⁴ To the extent the Board intended to adopt Petitioner’s obviousness challenges, those must fail because a claim “is not proved obvious merely by demonstrating that each element was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). A patent challenger (and the Board) must also identify “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements.” *Id.*

Having found anticipation, the Board relied upon a theory of unpatentability not proposed or presented by Petitioner. The Decision thus violates the procedural requirements of the APA.

ii. DynaEnergetics Had No Opportunity to Respond to Arguments First Raised in the Decision.

To fulfill the basic obligation of reasoned decision-making set forth in the APA, “[n]ot only must an agency’s decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational.” *Michigan v. EPA*, 135 S. Ct. 2699, 2706 (2015) (emphasis added) (quoting *Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 374 (1998)). Among the procedural protections provided to patent holders by the APA are the right to be timely informed and the right to respond to facts and arguments forming the basis for a finding of invalidity. *See* 5 U.S.C. §§ 554(b–c), 556(d); *see also Dell Inc. v. Accelaron, LLC*, 818 F.3d 1293, 1301 (Fed. Cir. 2016).

For this reason, the Federal Circuit very recently made clear that application of the APA to *inter partes* review proceedings dictates that:

[A]n agency may not change theories in mid-stream without giving respondents reasonable notice of the change and the opportunity to present argument under the new theory. Nor may the Board craft new grounds of unpatentability not advanced by the petitioner.

Arthrex, Inc. v. Smith & Nephew, Inc., No. 2018-1584, 2019 WL 3938271, at *3

(Fed. Cir. Aug. 21, 2019) (quotation marks and citations omitted). Thus, a patent owner in DynaEnergetics’ position is “undoubtedly entitled to notice of and a fair opportunity to meet the grounds of rejection, based on due-process and APA guarantees.” *In re NuVasive, Inc.*, 841 F.3d 966, 971-72 (Fed. Cir. 2016) (quotation marks omitted) (setting aside an argument first raised at the hearing as untimely).

Despite this clear mandate, the Board relied on its own crafted theory—articulated for the first time in the Decision—that the proposed amended claims were anticipated by Schacherer. By doing so, the Board deprived DynaEnergetics of any opportunity to respond, in violation of the APA. To be clear, the Board did not change theories mid-stream, as expressly prohibited by *Arthrex*. It did so much later, after the trial concluded and after the hearing.

iii. The Board Is Not Permitted to Raise its Own Arguments in Support of Denial of a Motion to Amend.

The legislative history of the America Invents Act makes clear that for purposes of *inter partes* review, unlike in the previously existing *inter partes* reexamination proceedings, the PTAB was to be an adjudicator that “simply decides whether the challenger has met his burden.” 157 CONG. REC. S1034, 1041 (Mar. 1, 2011) (statement of Sen. Kyl). As noted above, this role of adjudicator (not advocate) is consistent with Federal Circuit law.

Aqua Products, read together with *Arthrex*, makes clear that here, the Board

overstepped its bounds in finding Schacherer anticipates the proposed amended claims when such argument was never advanced by Petitioner. *Aqua Products* explains that once the threshold requirements for inserting the amended claims into the proceeding are met, “the very unpatentability challenges by the petitioner are the same unpatentability challenges to which any proposed amendment must respond and which continue throughout the proceeding. These are not different ‘classes’ of claims.” 872 F.3d at 1308. This was the basis for the Federal Circuit’s holding that, as with existing claims, the burden to prove unpatentability of proposed amended claims lies with petitioner. *Id.* at 1303. For the same reason, the Federal Circuit’s subsequent decision in *Arthrex* that the Board may not “craft new grounds of unpatentability not advanced by the petitioner” applies with equal force to proposed amended claims. *See* 2019 WL 3938271, at *3.

Here, the Board impermissibly crafted its own arguments for unpatentability. Presumably—though not expressly—it did so based on *Lectrosonics*’ interpretation of language in *Aqua Products* as permitting the Board to rely on the “entirety of the record” in considering a Motion to Amend. *See Lectrosonics, Inc. v. Zaxcom, Inc.*, Case IPR2018-01129, 01130, Paper 15 at 4, 2019 WL 1118864, at *1–2 (P.T.A.B. Feb. 25, 2019) (addressing AIA § 316(d), requirements, and burden).⁵

⁵ To the extent *Aqua Products* suggested the Board can go outside the parties’

However, the Federal Circuit in *Aqua Products* made clear that the question of “whether the Board may sua sponte raise patentability challenges to a proposed amended claim” was not at issue and “should be reserved for another day.” 872 F.3d at 1325. At best, *Aqua Products* permits the Board to cite to portions of the prior art not specifically drawn to its attention, but even then it is still inappropriate to make a finding of fact based on such evidence without permitting the patent owner a chance to respond. See *NuVasive*, 841 F.3d at 971. Of course here, looking elsewhere in the record would be unhelpful, because the record contains no evidence that Schacherer anticipates any of the proposed substitute claims.

B. Due Process Violations Are Inherent in the Administrative Regulations Governing the *Inter Partes* Review Process, as Shown Here.

It is imperative that in evaluating challenged claims, and any proposed substitute claims, the PTAB consistently act as an impartial arbiter of patentability in the IPR proceedings it administers. A “fair trial in a fair tribunal is a basic submissions, it did so in stating the Board committed reversible error by refusing to do so in potential aid of patentee’s arguments when denying a motion to amend. *Id.* at 1326. *Aqua Products* also permits the Board to do so in the limited context of an IPR following withdrawal by the petitioner. *Id.* at 1311–12; see also *Bosch Auto. Serv. Sols., LLC v. Matal*, 878 F.3d 1027, 1040 (Fed. Cir. 2017), *as amended on reh’g in part* (Mar. 15, 2018). Neither of these scenarios applies here.

requirement of due process,” and a “necessary component of a fair trial is an impartial judge.” *Weiss v. U.S.*, 510 U.S. 163, 178 (1994) (quoting *In re Murchison*, 349 U.S. 133, 136 (1955)). While the procedural infirmities that unfairly undermine a patentee’s rights before the Board are many,⁶ a clear,

⁶ The Board was so anchored to its Institution Decision that it failed to consider or to give appropriate weight to the full record, erroneously crediting an undermined expert opinion while overlooking or misapprehending extensive unrebutted fact and expert testimony submitted by DynaEnergetics. The Board never even acknowledges the Declaration of DynaEnergetics’ President Ian Grieves (Ex. 2005), highlighting the Board’s disregard for compelling secondary considerations that overwhelmingly overcome Petitioner’s obviousness positions, and the Board’s further disregard for the time, effort, and resources real industry contributors dedicate to innovation, competition, and improving the economy.

The Decision credits Petitioner’s expert, Robert Parrott, despite that his testimony was undermined both through deposition (which was blamed on DynaEnergetics’ counsel and not the ineffectiveness of the expert) and by rebuttal experts. Dr. John Rodgers submitted two extensive declarations directly rebutting Mr. Parrott, but the Board cites to Dr. Rodgers’ declaration only three times and to the supplemental declaration not at all. Ultimately, the Board ignored Dr.

fundamental requirement of due process remains missing from *inter partes* review: decision-making by an “adjudicator who is not in a situation which would offer a possible temptation to the average man as a judge which might lead him not to hold the balance nice, clear and true.” *Concrete Pipe & Prods. of Cal., Inc. v. Constr. Laborers Pens. Trust for S. Cal.*, 508 U.S. 602, 617–18 (1993) (quotation marks omitted). Indeed, it offends the Constitution for the same judge who has charged a person with perjury or contempt to preside over the trial of those offenses. *In re Murchison*, 349 U.S. 133, 136 (1955). Current procedures require the same panel to render both the institution decision and the final written decision, raising similar due process concerns.⁷

IV. CONCLUSION

For the foregoing reasons, DynaEnergetics respectfully requests this Request for Rehearing be granted and that a new Order be entered granting Patent Owner’s Motion to Amend and finding proposed substitute claims 16–22 not unpatentable. Rodgers’ testimony and instead assumed the role of “perforating industry expert.”

⁷ The Supreme Court’s recent decision in *Oil States Energy Services, LLC v. Greene’s Energy Group, LLC* did not consider due process infirmities of the IPR system. 138 S. Ct. 1365, 1379 (2018) (“We emphasize the narrowness of our holding. . . . [W]e address only the precise constitutional challenges that Oil States raised here. . . . Nor has Oil States raised a due process challenge.”).

Respectfully submitted,

Dated: September 18, 2019

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I hereby certify that a true and correct copy of the foregoing Patent Owner's Opposition to Petitioner's Motion to Exclude was served on Petitioner via electronic mail at the following:

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Dated: September 18, 2019

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