

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KAISER ALUMINUM,
Petitioner,

v.

CONSTELLIUM ROLLED PRODUCTS RAVENSWOOD, LLC,
Patent Owner.

Case IPR2014-01002
Patent 7,229,509 B2

Before MICHAEL P. TIERNEY, DONNA M. PRAISS, and
JO-ANNE M. KOKOSKI, *Administrative Patent Judges*.

KOKOSKI, *Administrative Patent Judge*.

DECISION
Petitioner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Kaiser Aluminum (“Petitioner”) filed an Amended Petition (Paper 4, “Pet.”) to institute an *inter partes* review of claim 10 of U.S. Patent No. 7,229,509 B2 (“the ’509 patent,” Ex. 1001). On December 29, 2014, we instituted an *inter partes* review of claim 10 on three grounds of unpatentability (Paper 11, “Dec. on Inst.”). In our Final Written Decision, we determined that Petitioner had not shown by a preponderance of the evidence that claim 10 of the ’509 patent is unpatentable. Paper 64 (“Final Dec.” or “Final Decision”). Petitioner requests rehearing of the Final Decision. Paper 67 (“Req. Reh’g” or “Request”).

For the reasons discussed below, we deny Petitioner’s Request for Rehearing.

II. THE REQUEST FOR REHEARING

Petitioner seeks reconsideration based on the following main contentions: (a) the Board overlooked that claim 10 was cancelled and Patent Owner has no remaining claim in the trial (Req. Reh’g 2–4); (b) the Board overlooked evidence establishing that claim 10 would have been obvious, under a preponderance of the evidence standard, over the combination of ’662 Balmuth¹ and ’910 Pickens² (*id.* at 4–7); (c) the Board misapprehended the standards of proof with respect to expert testimony (*id.* at 9–12); and (d) the Board misapprehended Petitioner’s argument with respect to inherency (*id.* at 12–15).

¹ Balmuth et al., U.S. Patent No. 5,234,662, issued Aug. 10, 1993 (“’662 Balmuth,” Ex. 1005).

² Pickens et al., U.S. Patent No. 5,211,910, issued May 18, 1993 (“’910 Pickens,” Ex. 1012).

We have reviewed Petitioner's Request and carefully considered Petitioner's arguments. Our decision on rehearing addresses the main arguments presented by Petitioner. We have, however, considered all of the arguments presented, including those not addressed specifically in this Decision. We are not persuaded that the Board misapprehended or overlooked Petitioner's arguments or evidence with respect to the patentability of claim 10.

III. ANALYSIS

A request for rehearing must identify specifically all matters the party believes we misapprehended or overlooked, and the place where each matter was addressed previously in a motion, an opposition, or a reply. 37 C.F.R. § 42.71(d). Additionally, Petitioner, as the party challenging the Final Decision, has the burden of showing the decision should be modified. *Id.*

When rehearing a decision on a petition, the Board will review the decision for an abuse of discretion. *See* 37 C.F.R. § 42.71(c). An abuse of discretion may be determined "if a decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if the decision represents and unreasonable judgment in weighing relevant factors." *Arnold Partnership v. Dudas*, 362 F.3d 1338, 1340 (Fed. Cir. 2004) (citing *In re Gartside*, 200 F.3d 1305, 1315–16 (Fed. Cir. 2000)).

A. *Cancellation of Claim 10*

Prior to the hearing in this proceeding, Patent Owner submitted an amendment cancelling claim 10 in the co-pending ex parte reexamination of the '509 patent styled Reexamination Control No. 96/000,071 ("the '071

reexamination”). We issued an Order to Show Cause advising that “we view Patent Owner’s cancellation of claim 10 to be tantamount to a request for adverse judgment” and that we would proceed to enter adverse judgment against it pursuant to 37 C.F.R. § 42.73(b)(2) absent a showing of good cause as to why adverse judgment should not be entered. Paper 51, 2. After reviewing briefing received from the parties, we determined that, “unless or until a reexamination certificate issues as a result of the ’071 reexamination, claim 10 has not been cancelled such that we can conclude, at this time, that Patent Owner has no remaining claim in the trial.” Paper 57, 6. Oral hearing was held on September 30, 2015, and our Final Decision was issued on November 2, 2015.

Petitioner now argues that “the Board overlooked that claim 10 was cancelled such that the party has no remaining claim at trial.” Req. Reh’g 2 (emphasis omitted). According to Petitioner, because a reexamination certificate cancelling claim 10 issued in the ’071 reexamination, “a Request for Adverse Judgment by the Patent Owner should be inferred.” *Id.* at 3; see Ex. 1036. The reexamination certificate in the ’071 reexamination issued on November 12, 2015, ten days after the Final Decision in this proceeding. See Ex. 1036. The reexamination certificate, therefore, was not evidence of record at the time of the Final Decision. We could not have overlooked evidence that was not in the record.

B. Petitioner Has Not Shown by a Preponderance of the Evidence That Claim 10 is Unpatentable

Petitioner contends that the Board “failed to provide ‘substantial evidence’ with respect to why the Petitioner has not demonstrated that claim 10 would be obvious over the combination of the ’662 Balmuth patent and

the '910 Pickens [patent].” Req. Reh’g 5. According to Petitioner, “the Board overlooked evidence that it is ‘more likely than not’ that one of skill in the art would be motivated to add Ag/Mg as taught by the ‘910 Pickens patent to the thick-plate alloy composition taught by the ‘662 Balmuth patent to arrive at the claimed invention.” *Id.* at 6. Petitioner also contends that the Board “overlooked or misapprehended” inconsistent statements made by Patent Owner’s declarant Dr. Pickens with respect to adding Ag/Mg to a thick plate composition such as that described in ‘662 Balmuth. *Id.* at 7.

As set forth in the Final Decision, we were not persuaded, based on the evidence before us, that Petitioner established sufficiently that the claimed properties would necessarily be present in the alloys described by the combination of ‘662 Balmuth and ‘910 Pickens. Final Dec. 10–12. Thus, we were not persuaded that the combination of ‘662 Balmuth and ‘910 Pickens taught or suggested an aluminum alloy at least about three inches thick exhibiting the recited ultimate tensile strength (“UTS”), tensile yield strength (“TYS”), and fracture toughness (“ K_{IC} ”) values.

Specifically, Petitioner relied on Mr. Balmuth’s testimony in support of its contention that the claimed properties would be inherent and/or predictable when Ag/Mg (as described in ‘910 Pickens) is added to the ‘662 Balmuth aluminum alloy. Pet. 38. Mr. Balmuth testified that ‘910 Pickens demonstrates that adding Ag/Mg to Al-Li alloys “was beginning to show some promising beneficial properties” with respect to “optimizing strength and fracture toughness,” and that

one of ordinary skill in the art would have predicted that changing the chemistry of the Al-Li alloys disclosed in the ‘662 Balmuth patent to include Ag/Mg, as known in the industry by Pickens’ previous discovery [as demonstrated in ‘910 Pickens],

would have resulted in an alloy with good strength and fracture toughness properties. It would have been a matter of routine testing to make the alloy composition and test for the properties, which would have been inherent in the chemistry and processing steps involved.

Ex. 1006 ¶ 20. Mr. Balmuth, however, does not provide sufficient objective evidence or analysis demonstrating that the claimed properties “would have been inherent in the chemistry and processing steps involved” and thus would necessarily be present in the alloy resulting from the combination of ’662 Balmuth and ’910 Pickens. For example, Mr. Balmuth does not expound upon the reasons why a person having ordinary skill in the art would understand that the “good strength and fracture toughness properties” that allegedly would have resulted upon the addition of Ag/Mg to the ’662 Balmuth alloy would meet the limitations set forth in claim 10. Petitioner’s contentions in its Request do not persuade us otherwise.

With respect to its contention that we overlooked evidence that a person having ordinary skill in the art would have found it obvious to try adding Ag/Mg to the ’662 Balmuth alloys, Petitioner argues:

One of skill in the art would have been motivated and found it “obvious to try” the addition of Mg and Ag to the alloy compositions of the ’662 Balmuth [patent] since Dr. Pickens, one of skill in the art, testified that “one of the things material scientists try to do, and metallurgists, is to move the strength/toughness curve in the goodness direction where everything is better, and that’s kind of a holy grail”. Petitioner’s Reply, paper 43, page 10 citing Ex. 1031, 170:14–19.

Reh’g Req. 6–7. Petitioner argues that “Dr. Pickens affirmed the motivation for such a modification by testifying that exceptional properties such as strength and fracture toughness would occur.” *Id.* at 7 (citing Reply 13

(citing Ex. 1031, 70:14–21)). Petitioner further argues that it “has also provided evidence that increasing strength and fracture toughness is a widely sought after endeavor in the production of thick plates for aerospace applications.” *Id.* at 7 (citing Reply 1 (citing Exs. 1005, 1013, and 1014)).

In our Final Decision, we credited Dr. Pickens’s testimony that designing a thick plate composition having the claimed properties would be costly and unpredictable, and that “one should have a specific service requirement in mind when attempting to design an alloy, given the sheer number of different applications in the aerospace industry.” Final Dec. 14–15 (citing Ex. 2043 ¶ 18). We considered Petitioner’s evidence that there was a commercial need in the aerospace industry for the claimed thick plate aluminum alloys, and determined “that Mr. Balmuth and Dr. Starke fail[ed] to provide sufficient reasoning as to why one of ordinary skill in the art would have attempted to manufacture thick plates having the claimed properties from the thin sheets described in the prior art.” *Id.* at 15.

We also are not convinced by Petitioner’s argument that Dr. Pickens testified that “exceptional properties such as strength and fracture toughness would occur” upon adding Ag/Mg to the ’662 Balmuth alloys, but “later appears to contradict himself by stating that ‘it is difficult to predict whether the addition [of] Ag and Mg would be effective in the complex product form of thick plate.’” Req. Reh’g 7 (citing Ex. 1031, 70:14–21; Ex. 2043 ¶¶ 57–59). In response to a question about the benefits of adding silver to an aluminum-copper-lithium alloy, Dr. Pickens stated that “[s]ilver by itself really doesn’t do very much” but that “[t]here’s a synergism between a small amount of silver and a small amount of magnesium on the order of .3, .4% of each that gives exceptional properties” such as strength and fracture

toughness. Ex. 1031, 69:4–21. Dr. Pickens’s statements, however, appear to be based on his work that “was not on very thick plate gauges” and “was mostly extrusions and some other thinner gauges,” and not specifically related to the addition of Ag/Mg to the ’662 Balmuth alloy. *Id.* at 70:3–16. As a result, we are not persuaded that Dr. Pickens offered contradictory testimony regarding the effectiveness of adding Ag/Mg to a thick plate alloy.

For these reasons, we are not persuaded that we overlooked or misapprehended any arguments or evidence in determining that Petitioner did not demonstrate, by a preponderance of the evidence, that claim 10 would have been obvious over the combination of ’662 Balmuth and ’910 Pickens.

C. Standards of Proof with Respect to Expert Testimony

Petitioner contends “that the Board abused its discretion when arbitrarily relying on Dr. Pickens’ unsupported statements as evidence.” Reh’g Req. 9. Petitioner contends that “the Board overlooked and misapprehended the experience and knowledge of Mr. Balmuth with respect to the claimed subject matter.” *Id.* at 10. Petitioner also contends that we “overlooked Dr. Starke[’s] and Mr. Balmuth’s testimony” that only routine testing is required to make an alloy composition and test for the claimed properties, in favor of “Dr. Pickens[’s] unsupported statements” that making the claimed alloy composition can be a complicated, costly, and unpredictable endeavor. *Id.* at 11–12.

We have considered Petitioner’s contentions and do not find them persuasive. It is Petitioner’s burden to establish facts supporting its challenge that claim 10 is unpatentable by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). “Failure to prove the matter as

required by the applicable standard means that the party with the burden of persuasion loses on that point—thus, if the fact trier of the issue is left uncertain, the party with the burden loses.” *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008). In our Final Decision, we determined that:

Neither Mr. Balmuth’s nor Dr. Starke’s statements regarding the inherent properties of a thick plate with the same chemistry as a thin sheet are supported by sufficient objective evidence or analysis demonstrating that the claimed properties would necessarily be present in the thick plate. Mr. Balmuth and Dr. Starke simply state that such a thick plate would inherently have the properties necessitated by the chemistry involved, without providing sufficient and credible explanations as to why that would be the case.

Final Dec. 12. Inherency requires that the claim limitation in question is necessarily present in the reference. *In re Montgomery*, 677 F.3d 1375, 1379–1380 (Fed. Cir. 2012). “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (quotation omitted). Here, Petitioner offers Mr. Balmuth’s and Dr. Starke’s unsupported statements that the claimed properties would be inherent in a thick plate having the same chemistry of a thin plate. In the Request, Petitioner does not identify sufficiently evidence regarding the underlying facts and data on which Mr. Balmuth’s and Dr. Starke’s opinions are based that we overlooked or misapprehended. We are not persuaded that we abused our discretion in finding that the opinions of Mr. Balmuth and Dr. Starke are not persuasive because they are not supported by objective evidence. *See* Final Dec. 12.

With respect to Petitioner’s contention that we overlooked Mr. Balmuth’s and Dr. Starke’s testimony regarding routine experimentation, we note that we specifically addressed these opinions in the Final Decision. *See* Final Dec. 14–16. We credited Dr. Pickens’s testimony regarding the difficulties a person having ordinary skill in the art would encounter in attempting to design a thick plate alloy with the claimed properties. *Id.* at 14–15. We did not overlook Mr. Balmuth’s or Dr. Starke’s testimony regarding routine testing. Rather, we found it unpersuasive. It is within the Board’s discretion to assign the appropriate weight to testimony offered by the witnesses. *Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding that Board has discretion to give weight to one item of evidence over another “unless no reasonable trier of fact could have done so.”). We decline to reweigh the evidence in considering a motion for rehearing. *Ex parte NTP, Inc.*, Appeal No. 2008-004594, 2010 WL 429233 at *1 (BPAI Feb. 4, 2010).

D. Petitioner’s Inherency Arguments

Petitioner contends “that ‘inherency’ as used by Dr. Starke and Mr. Balmuth is a technical statement and should not be construed in the ‘legal’ sense with respect to patentability.” Req. Reh’g 12. Petitioner further contends that it “has asserted that the **role** of the matrix strengthening precipitates, which occur based on the alloy composition, would have the same **role** in sheet as they have in thick plate for the same composition under similar thermal processing” and “[a]s misapprehended by the Board,” it “**has not asserted** that ‘thick plate would display the same mechanical properties as thin sheet’.” *Id.* at 12–13.

We are not persuaded that we misapprehended Petitioner's contentions with respect to whether a thick plate inherently would have the same mechanical properties as a thin sheet. Throughout the Petition, Petitioner repeatedly states that the claimed properties would be inherent or predictable in an alloy having a thickness of at least about three inches. For example, Petitioner "asserts that the Patent Owner is merely increasing the thickness of a known aluminum alloy composition because thick-plate aluminum alloy compositions are desirable in the aerospace industry and then claiming inherent properties that occur in such an aluminum alloy." Pet. 2 (emphasis omitted); *see also* Pet. 22 ("mechanical properties would be inherent in the thicker plate because of the addition of Ag and Mn that are known to improve strength and fracture toughness"), 26 (aluminum alloy with the claimed chemistry "would inherently and/or predictably have the claimed properties if increased to a thickness of at least 3 inches"), 37–38 ("It would have been a matter of routine testing to make the alloy composition and test for the properties, which would have been inherent in the chemistry.").

With respect to Petitioner's contention that we misapprehended Petitioner's argument regarding the role of constituents in an aluminum alloy composition, in the Final Decision we specifically addressed Mr. Balmuth's testimony as follows:

Mr. Balmuth, for example, states that "it is generally understood that the strength and fracture toughness properties of a plate are less than those of a sheet having similar chemistry," but that "one of ordinary skill in the art would predict improved properties for a plate upon a showing of improved properties in a sheet having similar chemistry," and does not expound upon the reasons why a person skilled in the

art would understand that to mean that the thick plate would display the same mechanical properties as the thin sheet.

Final Dec. 12. We determined that Mr. Balmuth's opinion was not persuasive because it was not supported by the evidence of record, *id.*, and Petitioner's contentions in its Request do not persuade us otherwise.

CONCLUSION

Petitioner has not carried its burden of demonstrating that our Final Decision determining that claim 10 of the '509 patent is not unpatentable misapprehended or overlooked any matters or that the Board abused its discretion. 37 C.F.R. § 42.71(d).

ORDER

In consideration of the foregoing, it is
ORDERED that Petitioner's Request for Rehearing is *denied*.

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