

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PROPPANT EXPRESS INVESTMENTS, LLC,
PROPPANT EXPRESS SOLUTIONS, LLC,
Petitioner,

v.

OREN TECHNOLOGIES, LLC,
Patent Owner.

IPR2017-02103
Patent 9,511,929 B2

Before MITCHELL G. WEATHERLY, KEVIN W. CHERRY, and
MICHAEL L. WOODS, *Administrative Patent Judges*.

CHERRY, *Administrative Patent Judge*.

DECISION

Granting in Part Petitioner's Request for Rehearing of the
Final Written Decision
37 C.F.R. § 42.71(d)

I. INTRODUCTION

a. Background

Proppant Express Investments, LLC, and Proppant Express Solutions, LLC, (collectively, “Petitioner”), filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–7, 10, and 12–19 of U.S. Patent No. 9,511,929 B2 (Ex. 1001, “the ’929 patent”). Pet. 1. We issued a Decision to Institute an *inter partes* review of the challenged claims. Paper 19, 43 (“Inst. Dec.”). In the Petition, Petitioner contended that claims 1–7, 10, and 12–19 of the ’929 patent were unpatentable under the following grounds:

Claim(s)	35 U.S.C. §	References
7, 10, 12	103	Smith ¹ , Krenek and/or Uhryn, Hedrick, and Racy
13, 16, 17	103	Smith, Krenek and/or Uhryn
14	103	Smith, Krenek and/or Uhryn, Racy
1, 2, 4, 15	103	Smith, Krenek and/or Uhryn, and Hedrick
3, 5, 6, 18, 19	103	Smith, Krenek and/or Uhryn, Hedrick, and Claussen

Pet. 5.

After institution of trial, Oren Technologies, LLC (“Patent Owner”), filed a Patent Owner Response (Paper 34, “PO Resp.”) and a Supplemental Patent Owner Response (Paper 43, “Supp. PO Resp.”), to which Petitioner replied (Paper 50, “Pet. Reply”). With our authorization, Patent Owner also

¹ A full description of the references is contained in our Final Written Decision. Paper 100, 8.

filed a Sur-Reply (Paper 67, “PO Sur-Reply”). Oral argument was conducted on November 30, 2018, and the transcript of the hearing has been entered as Paper 83.

We entered our Final Written Decision on March 13, 2019, in which we determined that Petitioner had shown that claims 1–3, 6, 13, 14, 16, and 17 of the ’929 patent were unpatentable. Paper 100, 59 (“Final Written Decision” or “Final Dec.”). In the Final Written Decision, we also determined that Petitioner *did not* show that claims 4, 7, 10, 12, 15, 18, and 19 are unpatentable. *Id.* at 50. With respect to claims 7, 10, 12, 15, 18, and 19, we based our finding on the determination that Petitioner failed to meet its burden to show that the cited references accounted for the requirement in all these claims that the containers hold volumes of “at least 30,000 pounds” of proppant. *Id.* at 33–35. With respect to claim 4, in addition to the “at least 30,000 pounds” of proppant limitation, we also found that the combination asserted against claim 4 did not include the Claussen reference and thus did not adequately account for the limitations of claim 3, from which claim 4 depends. *Id.* at 45–46.

Petitioner filed a timely Request for Rehearing in which it asks that we modify the Final Written Decision to find challenged claims 4, 7, 10, 12, 15, 18, and 19 unpatentable. Paper 104, 1 (“Reh’g Req.,” “Request,” or “Request for Rehearing”).

For the reasons that follow, we *grant-in-part* Petitioner’s Request to modify our Final Written Decision to find claims 7, 10, 12, 15, 18, and 19 have been shown to be unpatentable. We *deny-in-part* Petitioner’s request for rehearing to the extent it seeks to modify our Final Written Decision with respect to claim 4.

b. Standard for Reconsideration

The party filing a request for rehearing of a final written decision has the burden of showing a decision should be modified, and the 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 its papers. 37 C.F.R. § 42.71(d). Therefore, Petitioner bears the burden of establishing that we misapprehended or overlooked the matters that it requests that we review.

II. ANALYSIS

Petitioner argues that we erred in finding claims 4, 7, 10, 12, 15, 18, and 19 not unpatentable, but finding identical or narrower claims of related U.S. Patent No. 9,403,626 B2 (“the ’626 patent”) unpatentable in IPR2017-01918 (“-01918 Proceeding”). Req. Reh’g 1. We agree. As we mentioned above, all of claims 4, 7, 10, 12, 15, 18, and 19 require that the volumes of proppant be “at least 30,000 pounds.” We agree with Petitioner that we erred in our analysis of this limitation given our prior analysis in the -01918 Proceeding. In the Final Written Decision in the -01918 Proceeding, we concluded, on a similar record, that Petitioner had shown sufficiently that Smith, as modified, accounted for the requirement that the volumes of proppant held by the container be “at least 30,000 pounds.” IPR2017-01918, Paper 83, at 34–35 (February 14, 2019) (“-01918 FWD”). In particular, with respect to claim 9 of the ’626 patent, we explained:

Although we agree with Patent Owner that Smith does not disclose anything about a safety factor, such safety factor is not needed to meet the claimed invention.

As discussed above, *even if* Smith's 20-foot container is only capable of carrying 52,500 pounds, or 26,250 pounds per compartment, the claimed limitation is satisfied through the proposed modification of Smith, in which Petitioner proposes to modify and reinforce Smith's container to carry more proppant, possibly above 80,000 pounds, or about 40,000 pounds per compartment. *See supra* Part II.F.5.a.1. Indeed, Patent Owner acknowledges as much. *See* PO Resp. 37–38 (“[T]he weight of the proppant that would fill [Smith's full volume] would be between 79,751.7 and 84,182.32 pounds.”).

-01918 FWD, 34–35.

Petitioner submits that the same analysis of Smith's modified container that we relied on in the -01918 FWD in the paragraph above is also present in the Petition in this proceeding. Reh'g Req. 3. Petitioner further submits that the Patent Owner Response in this proceeding contains an identical discussion to pages 37 and 38 of the Patent Owner Response in the -01918 Proceeding, which we also cited in the -01918 FWD discussed above. *Id.*; *see* PO Resp. 36–37 (discussing Petitioner's contentions regarding how much proppant the modified container would hold). Thus, Petitioner concludes that the determinations in the -01918 FWD and our Final Decision are in conflict with respect to the “at least 30,000 pounds” limitation. Reh'g Req. 1–3.

Patent Owner does not dispute that our determination in the -01918 Proceeding conflicts with our holding in this proceeding. Opp. 1–4. Instead, Patent Owner raises three arguments why our determination in the -01918 FWD is incorrect. First, Patent Owner argues that our conclusion in the -01918 FWD was based on an incorrect premise—Patent Owner did not “acknowledge” that Smith's container, as modified, could hold 40,000 pounds per container. Opp. 2. Rather, Patent Owner contends its Patent

Owner Response was merely quoting Petitioner's expert, Dr. Wooley. *Id.* Patent Owner argues it never agreed that Smith's container, reinforced or not, could hold that much proppant, and, in fact, argued that a person of ordinary skill would never be motivated to create and use a container filled with proppant weighing that much. *Id.* Second, Patent Owner asserts that Petitioner never made the argument we relied upon in the -01918 Proceeding. *Id.* at 3. Finally, Patent Owner contends that the conclusion in the -01918 Proceeding is incorrect because Petitioner's argument that a person of ordinary skill would have reinforced Smith's container was based on hindsight, and there is no evidence quantifying how much additional weight Smith's container could hold if reinforced as Petitioner proposed. *Id.* None of these arguments is persuasive.

Patent Owner's first argument, that we erred in concluding that Patent Owner "acknowledge[d]" that Smith's container, as modified, could hold 40,000 pounds per compartment, is not persuasive for several reasons. As an initial matter, we did not determine in the -01918 Proceeding that Patent Owner admitted that the modified container would contain 80,000 pounds. *See* -01918 FWD 34–35. Instead, we simply noted that Patent Owner acknowledged that this was Petitioner's contention. *Id.* Indeed, Patent Owner relied on the contention by Petitioner that the container could hold nearly 80,000 pounds of proppant to argue that a person of ordinary skill would not have modified the container because Petitioner's filled container would be too heavy to carry on most roads. *See* PO Resp. 36–41 (providing similar analysis to -01918 Proceeding regarding weight of the container). In the -01918 FWD, we noted Patent Owner's statement as evidence that Patent Owner knew of and responded to Petitioner's contention, not to determine

that Patent Owner admitted that the container would carry that much. *See* - 01918 FWD, 34–35 (noting that Patent Owner acknowledged what Petitioner was proposing, not that Patent Owner admitted that the container would necessarily hold that much proppant). Moreover, even if Patent Owner did not make such an acknowledgement, as we explain below, we find that the analysis of Dr. Wooley about how much proppant the modified container would hold to be persuasive. Ex. 1001 ¶¶ 140, 141.

Patent Owner’s arguments why we should disregard Dr. Wooley’s testimony (which Patent Owner refers to in its first argument and third argument referenced above)—i.e., that Dr. Wooley’s reasoning is allegedly based on hindsight and is unsupported (Opp. 3)—are also unpersuasive. In our Final Decision in this proceeding, we rejected Patent Owner’s hindsight argument and explained that Dr. Wooley and Petitioner provided sufficient articulated reasoning with rational underpinning to explain the combinations and modifications that they proposed. Final Dec. 27–30. Thus, Patent Owner’s hindsight argument—which merely rehashes an argument we previously rejected—is not persuasive.

As for Patent Owner’s contention that “Petitioners did not offer any evidence quantifying how much additional weight Smith’s container could hold if reinforced as Petitioners proposed,” Opp. 3, we also find it unpersuasive. We determine that Dr. Wooley’s testimony, by itself, supports our conclusion that Smith’s container, as Petitioner proposes to modify and combine it with the other pieces of prior art, would meet the “at least 30,000 pounds” limitation. Ex. 1001 ¶¶ 132–141. In this testimony, Dr. Wooley provided a detailed explanation of how much proppant the modified Smith container could hold. *See id.* We have reviewed that

testimony and agree with Dr. Wooley’s conclusion and reasoning. Thus, we disagree with Patent Owner’s argument that Petitioner has failed to provide “any” evidence to support our conclusion that Smith’s modified container can hold “at least 30,000 pounds” as required by claims 4, 7, 10, 12, 15, 18, and 19.

Patent Owner’s only remaining assertion for why we should disregard our determination in the -01918 FWD is that Petitioner failed to argue that the modified container would meet the limitation and we are forbidden from departing from the arguments that Petitioner made. Opp. 2–3. We disagree that Petitioner never presented this position. Petitioner and its expert proposed combining and modifying Smith’s container such that it could carry more than the 26,250 pounds of proppant per compartment. *See, e.g.*, Pet. 46–48 (discussing with respect to claim 7, that a person of ordinary skill would modify Smith to carry more than 26,250 pounds per compartment). The obviousness analysis turns on what the combined teachings of the asserted prior art would have suggested to a person of ordinary skill, not what the references teach individually. *In re Mouttet*, 686 F.3d 1322, 1333 (Fed. Cir. 2012) (“[T]he test for obviousness is what the combined teachings of the references would have suggested to [a PHOSITA].”); *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985) (“On the issue of obviousness, the combined teachings of the prior art as a whole must be considered.”). Here, the combined teachings of the references in view of the reasoning articulated by Dr. Wooley, and provided in the Petition, would, as Dr. Wooley testified, result in a container that can hold “at least 30,000 pounds” of proppant. *See* Ex. 1001 ¶¶ 132–141; *E.g.*, Pet. 46–48. Accordingly, we modify our Final Decision and find that Petitioner has

shown by a preponderance of the evidence that the combination of prior art teaches or suggests the “at least 30,000 pounds” limitation.

As for claim 4, we had two independent bases for finding claim 4 had not been shown to be unpatentable. *See* Final Dec. 45–46. First, we found that Petitioner had failed to account for all the limitations in the specific combination it proposed of Smith, Krenek, and Hedrick—in particular, the limitation of claim 3, from which claim 4 depends. *Id.* at 46. Second, we found that Petitioner had failed to show sufficiently the “at least 30,000 pounds” limitation discussed above. *Id.* Petitioner does not challenge in its Request our first basis for finding claim 4 had not been shown to be unpatentable. Therefore, we decline to disturb our finding that claim 4 has not been shown to be unpatentable.

With respect to the remaining claims at issue in this Request, however, the failure to show the “at least 30,000 pounds” limitation was the sole basis for our finding that Petitioner had failed to prove that claims 7, 10, 12, 15, 18, and 19 were unpatentable. *See* Final Dec. 33–36, 42–43, 59. We find that the Petitioner has shown all of the limitations of these claims are accounted for in the proposed combinations and that Petitioner has provided an adequate rationale for why a person of ordinary skill would have been motivated to combine the references in the manner proposed with a reasonable expectation of success. *See generally* Final Dec. (addressing all of Patent Owner’s remaining arguments); Pet. 34–58 (providing mapping for claims 7, 10, 12), 69–70 (claim 15), 79–82 (claims 18 and 19). Accordingly, we modify our Final Decision and find that claims 7, 10, 12, 15, 18, 19 have been shown to be unpatentable.

III. CONCLUSION

a. Outcome of Decision on Rehearing

Claims	35 U.S.C. §	References	Denied	Granted
7, 10, 12	103	Smith, Krenek and/or Uhryn, Hedrick, and Racy		7, 10, 12
4, 15	103	Smith, Krenek and/or Uhryn, and Hedrick	4	15
18, 19	103	Smith, Krenek and/or Uhryn, Hedrick, and Claussen		18, 19
Overall Outcome			4	7, 10, 12, 15, 18, 19

b. Final Outcome of Final Written Decision

Claims	35 U.S.C. §	References	Claims Shown Unpatentable	Claims Not Shown Unpatentable
7, 10, 12	103	Smith, Krennek and/or Uhryn, Hedrick, and Racy	7, 10, 12	
13, 16, 17	103	Smith, Krennek and/or Uhryn	13, 16, 17	
14	103	Smith, Krennek and/or Uhryn, Racy	14	
1, 2, 4, 15	103	Smith, Krennek and/or Uhryn, and Hedrick	1, 2, 15	4
3, 5, 6, 18, 19	103	Smith, Krennek and/or Uhryn, Hedrick, and Claussen	3, 5, 6, 18, 19	
Overall Outcome			1–3, 5–7, 10, 12–19	4

IV. ORDER

For the reasons given, it is

ORDERED that Petitioner's Request for Rehearing is *granted-in-part* to the extent our Final Written Decision is modified to conclude that claims 7, 10, 12, 15, 18, and 19 have been shown to be unpatentable; and

FURTHER ORDERED that Petitioner's Request for Rehearing is *denied-in-part* to the extent that we maintain our finding that claim 4 has not been shown to be unpatentable.

PETITIONER:

Mark Garrett
mark.garrett@nortonrosefulbright.com
W. Andrew Liddell
andrew.liddell@nortonrosefulbright.com
Jeffrey Kitchen
jeff.kitchen@nortonrosefulbright.com
Jeremy Albright
jeremy.albright@nortonrosefulbright.com
Charles Walker
charles.walker@nortonrosefulbright.com
Catherine Garza
cat.garza@nortonrosefulbright.com

PATENT OWNER:

Gianni Cutri
gianni.cutri@kirkland.com
Adam Kaufmann
adam.kaufmann@kirkland.com
Kyle Kantarek
kyle.kantarek@kirkland.com