

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ARROWS UP, LLC,

Petitioner,

v.

OREN TECHNOLOGIES, LLC,

Patent Owner.

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Case No. IPR2018-01230

U.S. Patent No. 9,248,772

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**PATENT OWNER'S PRELIMINARY RESPONSE**

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<b>Exhibit No.</b>	<b>Description</b>
2001	Patent Assignments for Oren Technologies
2002	“U.S. Silica to Acquire Logistics Solutions Provider Sandbox Enterprises,” U.S. Silica Holdings, Inc., August 2, 2016
2003	2018-09-17 SandBox’s Response to AU’s Partial Motion to Dismiss and/or Strike SandBox’s First Amended Answer and Counterclaims
2004	Mutual Confidentiality and Non-Disclosure Agreement
2005	Agreed Injunction and Final Judgment
2006	Final Judgment
2007	Uhryn File History Excerpts

## **I. INTRODUCTION**

Patent Owner Oren Technologies, LLC (“Patent Owner” or “Oren”) was founded by the father-and-son team of John and Josh Oren, and John Oren is the named inventor on U.S. Patent No. 9,248,772 (“the ’772 Patent”). Ex. 1001. Patent Owner has over 60 issued patents and published applications related to logistics solutions and technology, including specialized containers, for the transportation of proppant used in hydraulic fracturing in the oil and gas industry. Ex. 2001. John and Josh Oren also founded SandBox Logistics, LLC (“SandBox”), a “leading provider of innovative logistics solutions and technology for the transportation of proppant used in hydraulic fracturing in the oil and gas industry,” to commercialize their inventions. Ex. 2002.

The parties here are not strangers to one another. Back in 2014, SandBox and Petitioner Arrows Up, LLC (“Petitioner” or “Arrows Up”) were friends. SandBox retained Arrows Up to help it build a plastic version of its specialized metal containers. Ex. 2003 at 10. To do so, Arrows Up required access to detailed information about SandBox’s metal container and its logistical process. SandBox thus required Arrows Up to sign a non-disclosure agreement (“NDA”) before the project began. The NDA provided, among other things, that:

- Arrows Up was prohibited from using information SandBox provided it without SandBox’s permission;

- any Arrows Up inventions containing modifications, enhancements, derivations, or other improvements relating to SandBox's equipment design or logistical system, referred to as the "Related Inventions," were owned exclusively by SandBox; and
- Arrows Up was required to assign to SandBox all rights to any Related Inventions, including any underlying or resulting intellectual property.

Ex. 2004 ¶¶ 1-2, 8.2. Once the NDA was executed, SandBox sent Arrows Up the technical drawings and photographs of its metal containers. Ex. 2003 at 11. Arrows Up, however, secretly began copying SandBox's ideas almost immediately upon gaining access to SandBox's designs. By April 2014, Arrows Up even created advertising that falsely described SandBox's design concepts as its own inventions. *Id.* at 11. This continued until December 2014, when SandBox filed suit against Arrows Up in state court after discovering what Arrows Up had done. *Id.*; *see also id.* at n.12.

The parties quickly entered into a settlement agreement and release ("Settlement Agreement") that confirmed that Arrows Up would not use any information about SandBox's technology that had been provided under the NDA for any purpose whatsoever. *Id.* at 12. Similar restrictions were adopted into an agreed permanent injunction issued by the state court in January 2015. *Id.* at 12, n.15; Ex. 2005. Within a few weeks, however, Arrows Up continued to tell the market that

pictures of SandBox containers were Arrows Up's own products. Ex. 2003 at 12. This led SandBox to file a second state court case in January 2016. *Id.* at 12, n.16.

Arrows Up sought leverage to encourage SandBox to settle the case and avoid its own liability. For example, it used SandBox's design information to file new patent applications aimed at SandBox's own technology. *Id.* at 12. Once the first of these patent applications issued as a patent, Arrows Up promptly sued SandBox for allegedly infringing it. *Arrows Up, LLC v. U.S. Silica Holdings, Inc. and SandBox Logistics, LLC*, Case No. 4:17-cv-01945 (S.D. Tex. June 25, 2017). Arrows Up continued to file patent applications based on information SandBox had disclosed to it under their NDA. As more of its ill-gotten patents issued, Arrows Up amended its complaint to add them to the infringement action against SandBox. Ex. 2003 at 12-13.

Arrows Up continued to seek ways to force SandBox to settle its second state court case. As part of that strategy, Arrows Up filed *inter partes* review ("IPR") petitions challenging four SandBox patents, including this one, on June 11, 2018. IPR2018-01230 (challenging U.S. Patent No. 9,248,772); IPR2018-01231 (challenging U.S. Patent No. 9,617,066); IPR2018-01232 (challenging U.S. Patent No. 9,682,815); IPR2018-01233 (challenging U.S. Patent No. 9,914,602). The four challenged patents were never asserted against Arrows Up, as SandBox has never sued Arrows Up for patent infringement. Arrows Up's IPRs, including this one, are

nothing more than Arrows Up's attempt to get additional ammunition in an attempt to avoid liability for its repeated bad acts.

On July 3, 2018, however, a twelve-person jury unanimously found that Arrows Up breached multiple terms of the NDA, the Settlement Agreement, and committed fraud. Ex. 2003 at 13. The jury awarded SandBox actual and punitive damages totaling over \$43 million. *Id.* The court, in turn, declared that the “frac sand and shipping containers Arrows Up has manufactured, sold, or leased” since signing the Settlement Agreement are “Related Inventions” and “are owned solely and exclusively by Plaintiff SandBox.” Ex. 2006 at 4. The court further found that Arrows Up converted SandBox's property and awarded SandBox “title to and possession of any frac sand shipping containers” that Arrows Up has manufactured, sold, or leased since entering into the Settlement Agreement. *Id.* at 4-5.

The merits of this challenge are no better than that of the state court case Arrows Up recently lost. Petitioner has failed to meet its burden to show that there is a reasonable likelihood that Claims 1-11 of the '772 Patent (“the Challenged Claims”) are unpatentable. Petitioner does not have any prior art that discloses “a second different end wall,” as claimed in all Challenged Claims. Moreover, Petitioner's expert declaration is not entitled to any weight, and Ground 3 of its challenge must be rejected because Petitioner has failed to demonstrate a reference it relies upon is prior art to the '772 Patent.



## II. THE CLAIMED INVENTION

The '772 Patent is directed to a “method of delivering, transporting, and storing proppant for delivery and use at a well site.” Ex. 1001 at Title. Proppant is material, such as grains of sand, ceramic, or other particulates, that is used during hydraulic fracturing operations. *Id.* at 1:36-38. During fracturing operations, a wellbore is drilled into a fossil fuel reservoir rock formation. *Id.* at 1:30-31. A high pressure fracturing fluid, typically consisting of water, proppant, and chemical additives, is injected into the wellbore. The energy of the injection creates new fractures in the fossil fuel reservoir rock formation, which can increase both the rate at which the fossil fuels are extracted and the amount of fossil fuels ultimately recovered from the operation. *Id.* at 1:31-34. The high pressure fracturing fluid contains proppant to help maintain the fracture width and to prevent the fractures from closing when the injection is stopped. *Id.* at 1:34-35.

By far the most dominant form of proppant is silica sand. Ex. 1001 at 1:44-46. In a typical hydraulic fracturing operation, large amounts of proppant are required, but it is difficult to effectively transport proppant to the well site, or to effectively store the proppant once it is transported to the well site. *Id.* at 1:59-63. Prior art methods of transporting proppant using railcars and pneumatic bulk trailers added costs to the fracturing operation (*id.* at 2:29-42), and prior art methods of

storing proppant at a well site required large capital investments in the storage facilities (*id.* at 2:1-7).

The '772 Patent addresses these problems by providing a method for delivering, transporting, and storing proppant. Ex. 1001 at Title. Figure 3 of the '772 Patent is presented below.

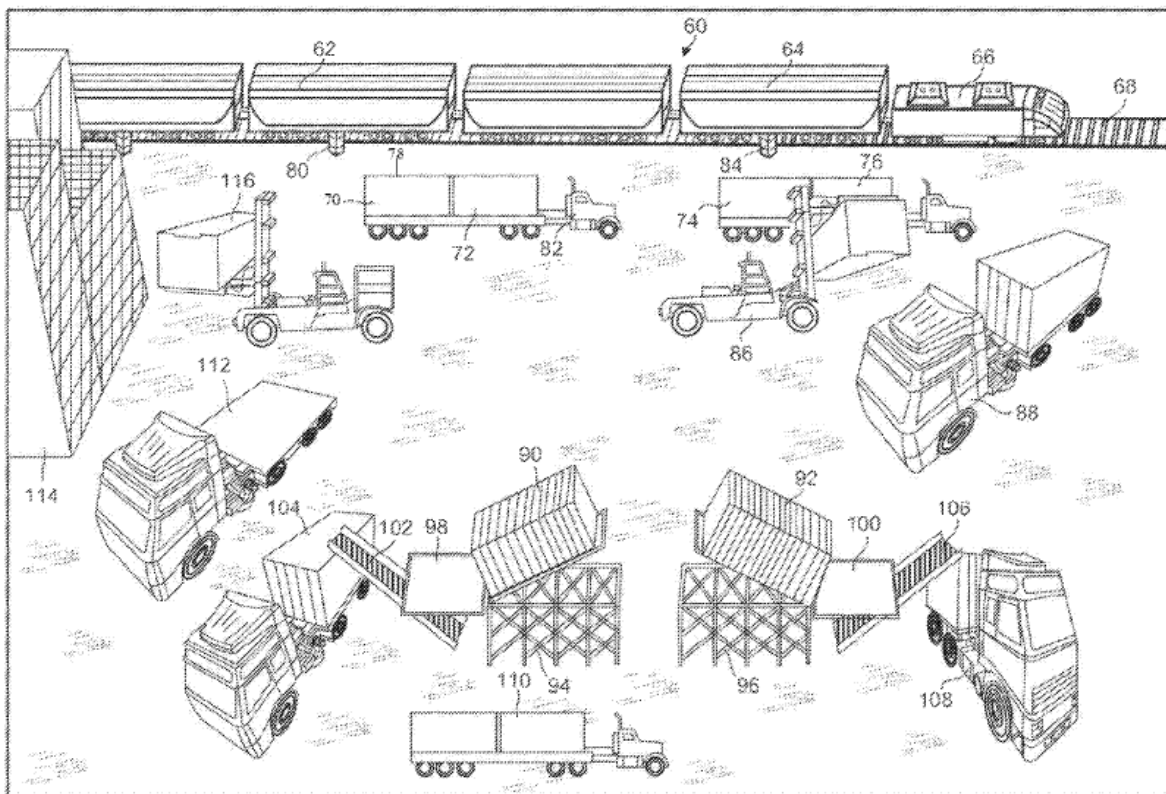
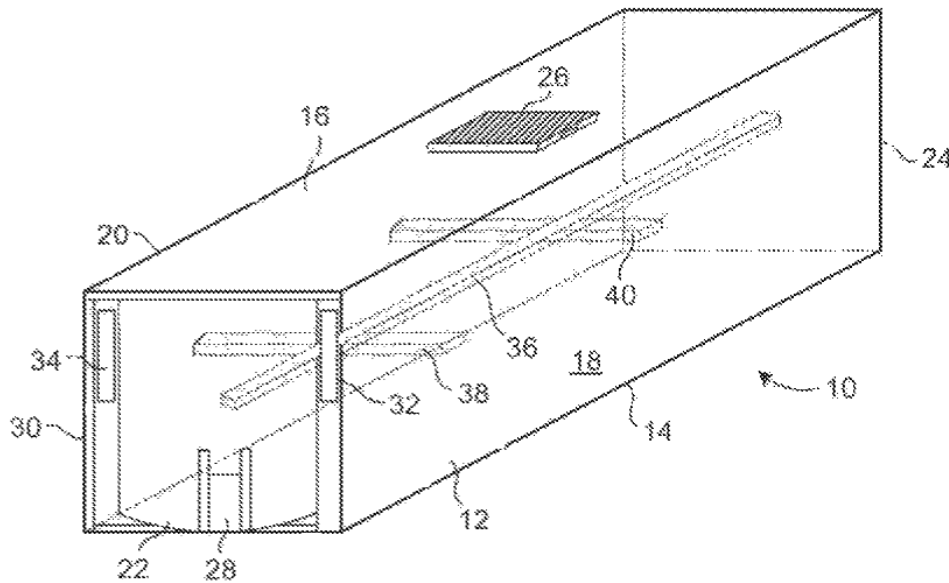


FIG. 3

“FIG. 3 shows a system 60 of the present invention.” Ex. 1001 at 7:54. In the embodiment illustrated in Figure 3, a load of proppant is transported to a desired location using vessel 62 associated with a bulk material train 64. *Id.* at 7:54-64. The proppant is unloaded into containers 70, 72, 74 and 76, which are supported on the

bed of a truck. *Id.* at 8:4-14. A container loader/unloader 86 lifts and moves the containers as needed. *Id.* at 8:19-20. Containers 114, which may be either filled with proppant or empty, are shown in a stacked configuration. *Id.* at 8:55-65.

Figure 1 of the '772 Patent illustrates a preferred embodiment of a container:



This preferred embodiment of the '772 Patent's container includes "a bottom wall 14, a top wall 16, a pair of side walls 18 and 20 and a pair of end walls 22 and 24." *Id.* at 6:26-28. "The end wall 22 extends between the bottom wall 14 and the top wall 16," whereas "end wall 24 extends between the bottom wall 14 and the top wall 16 and also between the side walls 18 and 20." *Id.* at 6:32-35. In the preferred embodiment of the '772 Patent's container, "flow gate 28 is positioned on the end

wall 22,” and “is openable so as to allow the proppant to flow outwardly of the interior volume of the container.” *Id.* at 6:38-41. End wall 22 in the preferred embodiment also includes inlet 32 (*id.* at 6:53-55) and vent 34 (*id.* at 6:65-67).

Claim 1 of the '772 Patent, set forth below, is the only independent claim:

A method of transporting proppant, the method comprising:

- a) vertically stacking a plurality of empty proppant containers in close proximity to a rail spur so that one of the plurality of empty proppant containers overlies another one of the plurality of empty containers thereby to reduce footprint of the area required adjacent to rail spur to store the plurality of empty proppant containers, each of the plurality of empty containers including at least a first end surface and at least a second different end surface and each of the first and second end surfaces having a plurality of upright structural support members thereon to enhance integrity of the container so that a large amount of weight can be stacked upon the container and so that heavy weight can be stored therein;
- b) filling the plurality of empty proppant containers with proppant from one or more proppant transporting rail vehicles thereby to produce a plurality of proppant filled containers;
- c) transferring the plurality of proppant filled containers with a loader onto one or more support platforms associated with one or more proppant transporting road vehicles.

### **III. OVERVIEW OF PETITIONER’S PRIOR ART**

#### **A. Sheesley**

Petitioner relies on U.S. Patent Application Publication No. 2013/0206415 to Sheesley (“Sheesley”), filed February 10, 2012 and published August 15, 2013. Ex. 1003. Sheesley discloses a “cargo container ... modified to carry a fracing proppant such as sand from a quarry or source to the frac site.” *Id.* at Abstract. Sheesley was before the examiner during prosecution of the ‘772 Patent. Ex. 1001 at 3.

#### **B. Mintz**

Petitioner relies on U.S. Patent No. 8,915,691 to Mintz (“Mintz”), filed January 1, 2012 and issued December 23, 2014. Ex. 1004. Petitioner argues Mintz is entitled to claim priority to a provisional patent application, filed December 31, 2010. Pet. at 11. Mintz discloses an “[a]pparatus for transporting frac sand and/or proppant for use in standard ISO intermodal containers and for delivering frac sand and/or proppant to well sites.” Ex. 1004 at Abstract.

#### **C. Uhryn**

Petitioner relies on U.S. Patent App. No. 2013/0022441 to Uhryn et al. (“Uhryn”), filed May 18, 2012 and published January 24, 2013. Ex. 1005. Uhryn discloses a “method of bulk transport of proppant.” Ex. 1005 at Abstract. Uhryn was before the examiner during prosecution of the ‘772 Patent. Ex. 1001 at 3.

#### IV. CLAIM CONSTRUCTION

A claim in IPR is given the broadest reasonable interpretation in light of the specification to one having ordinary skill in the art. 37 C.F.R. § 42.100(b).

“A second different end surface”: Patent Owner submits that the broadest reasonable construction of “a second different end surface” is “an additional end surface that is not the same as the first end surface.” This construction is consistent with the plain meaning of the term and the specification.

“Generally claim terms should be construed consistently with their ordinary and customary meanings.” *Merck & Co., Inc. v. Teva Pharma. USA, Inc.*, 395 F.3d 1364, 1370 (Fed. Cir. 2005). “A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.” *Id.* at 1372; *see also Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1119 (Fed. Cir. 2004) (“all claim terms are presumed to have meaning in a claim”). Therefore, the claim term “a second different end surface” should be construed to give meaning to **both** the word second **and** the word different. The second end wall is not different just because it is not the first end wall; that difference was already addressed by the use of the word “second.” “Different” must mean something more. And both “second” and “different” should be given their ordinary and customary meanings. Patent Owner’s proposed construction, which states that “a second different end surface” is both an additional end surface (a second, rather than the

first, end surface) **and** an end surface that is not the same as the first end surface (a different end surface).

This construction is also consistent with the description of the preferred embodiment of the claimed containers in the specification. Figure 1 depicts the preferred embodiment of the claimed container. Ex. 1001 at Fig. 1. It includes “a pair of end walls 22 and 24.” *Id.* at Fig. 1, 6:26-28. As shown in the figure and described in the specification, in the preferred embodiment, end walls 22 and 24 are not the same. “The end wall 22 extends between the bottom wall 14 and the top wall 16,” whereas end wall 24 extends between those top and bottom walls “and also between the side walls 18 and 20.” *Id.* at 6:32-35. “[E]nd wall 22 is recessed inwardly” from the pair of sidewalls and the bottom and top walls, and end wall 22 has a “generally convex surface.” *Id.* at Fig. 1, 6:42-46.

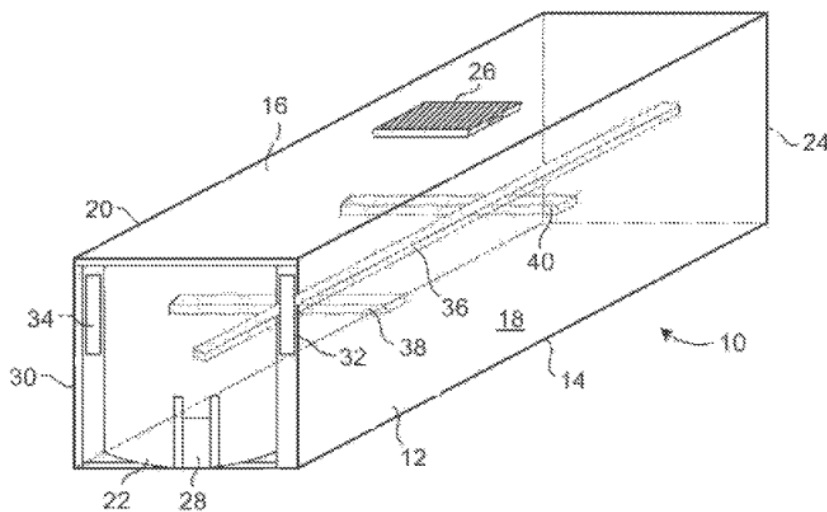


FIG. 1

Neither of those things are true for end wall 24. Additionally, in the preferred embodiment, only end wall 22 includes a flow gate 28, an inlet 32, and a vent 34. *Id.* at Fig. 1, 6:38-39, 6:53-67. These disclosures support Patent Owner’s proposed construction that “a second different end wall” is “an additional end surface that is not the same as the first end surface.”

## **V. THE CHALLENGED CLAIMS ARE PATENTABLE**

### **A. Petitioner’s Expert Declaration Is Conclusory, Not Credible, And Should Be Given Little Consideration.**

As an initial matter, Petitioner’s expert declaration should be given little to no weight because it essentially repeats Petitioner’s arguments, only replacing the phrase “[a] POSITA would understand” in the Petition with the phrase “in my opinion, a POSITA would understand.” *Compare generally* Pet. at 23-63 *with* Ex. 1002 at ¶¶ 63-136. “Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.” 37 C.F.R. § 42.65(a). “Merely repeating an argument from the Petition in the declaration of a proposed expert, does not give that argument enhanced probative value.” *Robert Bosch Tool Corp. v. SD3, LLC*, IPR2016-01755, Paper 15 at 17 (PTAB Mar. 31, 2017) (citing 37 C.F.R. § 42.65(a), giving expert declaration “no probative weight” and denying institution); *see also Securenet Techs., LLC v. Icontrol Networks, Inc.*, IPR2016-01911, -01916, Paper 9 at 11, 14-15 (PTAB Mar. 31, 2017) (denying institution and stating expert testimony is conclusory where it merely repeated



Petitioner's conclusory argument "without adequate elaboration or explanation"); *InfoBionic, Inc. v. Braemer Mfg., LLC*, IPR2015-01704, Paper 11 at 6 (PTAB Feb. 16, 2016) (denying institution where expert's testimony was not "persuasive or helpful as it repeats the Petitioner's arguments and offers little or no elaboration"); *Qualcomm Inc. v. ParkerVision Inc.*, IPR2015-01819, Paper 8 at 29 (PTAB Mar. 8, 2016) (denying institution and finding expert testimony regarding motivation to combine not credible "because it essentially repeats the arguments advanced by Qualcomm in its Petition."). Because Petitioner's expert declaration fails to describe the facts and data underlying his opinions, and instead just repeats Petitioner's arguments, it should be given no weight.

**B. Sheesley Does Not Disclose "A Second Different End Surface."**

Each Challenged Claim requires a container "including at least a first end surface and at least a second different end surface." Ex. 1001 at claim 1. Petitioner argues that Sheesley discloses these claim elements. Pet. at 26-27. Specifically, Petitioner points to the two end walls of the container illustrated by Sheesley's Figure 9, each of which it labels "End Wall," and states that this shows both a first end surface and a second different end surface. *Id.* Petitioner has failed to demonstrate Sheesley discloses "a second different end surface," however.

As explained above, "a second different end surface" is properly construed to mean "an additional end surface that is not the same as the first end surface." *Supra*

Section IV. While Petitioner has identified two end walls, which may be a first and second end surface, it has failed to make any showing that the second end surface is not the same as the first end surface. Pet. at 26-27. Indeed, Petitioner does not even state which of the two “end walls” in its annotated Figure 9 is the first end surface and which is the second end surface. *Id.* That annotated figure confirms that Petitioner only attempted to identify two “end walls,” rather than a disclosure of what is claimed: “a first end surface and at least a second different end surface.” Petitioner’s inability to map the claim to this prior art stems from the fact that Sheesley does not have the required disclosure. Only one of the alleged “end walls” in Fig. 9 of Sheesley has even been given a reference number. *Id.* The lack of a reference number for what Petitioner labels the “second end wall” confirms that there is no discussion of this aspect of the container shown in Figure 9 of Sheesley from which Petitioner could even attempt to argue that the “second end wall” was not the same as the first end wall. Petitioner’s expert does not offer any opinions about what a person of ordinary skill in the art would understand about the “second end wall,” nor does Petitioner or its expert try to establish any differences between the first and second end walls in Sheesley. Ex. 1002 at ¶¶ 70-71. Instead, all Petitioner’s expert offers is a near word-for-word repeat of Petitioner’s inadequate argument. *Compare id. with* Pet. at 26-27.

Nor can Petitioner rely on any other reference as allegedly disclosing “a second different end surface.” While Petitioner argues that claim 1 is rendered obvious by Sheesley in combination with Mintz in Ground 3, the only claim element that Petitioner states Sheesley may not teach is “each of the first and second end surfaces having a plurality of upright structural support members.” Pet. at 46-47. When arguing that Sheesley in combination with Uhryn renders some of the dependent claims obvious, Petitioner does not revisit any of the limitations of claim 1 of the ’772 Patent, and therefore does not provide any argument that Uhryn discloses “a second different end surface.” *See generally* Pet. at 51-60.

Because Petitioner has failed to show that Sheesley or any other prior art reference discloses “a second different end surface,” and because that claim element appears in all Challenged Claims, Petitioner’s challenge, on all grounds, must also fail.

**C. Ground 3 Must Be Rejected Because Uhryn Is Not Prior Art To The ’772 Patent.**

Ground 3 of Petitioner’s challenge is based upon the combination of Sheesley and Uhryn. However, Petitioner has failed to establish that Uhryn is prior art to the ’772 Patent, and thus Petitioner’s challenge on this ground must fail.

Petitioner argues that the earliest priority date the Challenged Claims are entitled to is March 22, 2012. Pet. at 5. Even accepting this date as correct for

purposes of this proceeding<sup>1</sup>, Uhryn was filed later, on May 18, 2012. Ex. 1005 at

1. It is therefore not prior art to the '772 Patent. 35 U.S.C. § 102 (pre-AIA).

Petitioner argues, however, that Uhryn is entitled to claim priority to the filing date of its provisional application (“Uhryn Provisional”), July 20, 2011. Pet. at 19. Petitioner bears the burden to prove that Uhryn is entitled to the filing date of its provisional application. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1376 (Fed. Cir. 2015). To meet that burden, Petitioner must compare “*the claims* of [Uhryn] to the disclosure in [Uhryn Provisional].” *Id.* at 1381. “A reference patent is only entitled to claim the benefit of the filing date of its provisional application if the disclosure of the provisional application provides support for the claims in the reference patent in compliance with § 112.” *Id.* “A provisional application’s effectiveness as prior art depends on its written description support for the claims of the issued patent of which it was a provisional.” *Id.* at 1382.

Notably, in each instance, the Federal Circuit in *Dynamic Drinkware* referred to claims, plural. *See id.* at 1381-82. This is because specification of the provisional

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<sup>1</sup> Patent Owner does not concede that this is the earliest priority date for the '772 Patent.

application must both provide a written description and enable a POSITA to practice “the invention *claimed*” in the non-provisional application. *Id.* at 1378. Uhryn has two independent claims and an additional 19 dependent claims. Ex. 1005 at 7-8. The “invention” claimed in Uhryn encompasses the scope of all 21 claims, yet Petitioner has only compared claim 1 of Uhryn to the Uhryn Provisional to attempt to establish that Uhryn is entitled to the earlier filing date. Pet. at 20-21. This is insufficient.

Petitioner’s contention that Uhryn and Uhryn Provisional are identical is irrelevant. *See* Pet. at 20 n.1. Uhryn is a published patent application, and there is no presumption of validity of a patent application. In fact, Uhryn was abandoned before issuing as a patent, and was published before undergoing any examination. Ex. 2007 at 2; *compare id.* at 17 with Ex. 1005 at 1. And “the PTO does not examine provisional applications as a matter of course.” *Dynamic Drinkware*, 800 F.3d at 1380. Therefore, even if the specifications of Uhryn and Uhryn Provisional are identical, there is no basis to assume that that specification provides § 112 support for the claims of Uhryn.

Because Uhryn is not entitled to claim priority to Uhryn Provisional, it is not prior to the ’772 Patent, and Ground 3 of Petitioner’s challenge relying on Uhryn must fail.

## **VI. CONCLUSION**

Petitioner has failed to meet its burden to show that there is a reasonable likelihood that the Challenged Claims are unpatentable. Therefore, this Board should deny institution of *inter partes* review.

DATED: October 17, 2018

Respectfully submitted,

/s/ Gianni Cutri

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## **CERTIFICATE OF COMPLIANCE**

This Patent Owner's Preliminary Response complies with the type-volume limitations as mandated in 37 C.F.R. § 42.24, totaling 3,738 words. Counsel has relied upon the word count feature provided by Microsoft Word.

DATED: October 17, 2018

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the above-captioned “PATENT OWNER’S PRELIMINARY RESPONSE” and Exhibits 2001-2007 were served in their entirety on October 17, 2018, via electronic service on lead counsel for Petitioner, as consented to by the parties:

Allison Lucier at allison.lucier@hklaw.com

Service was also made via electronic service on Petitioners’ back-up counsel:

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DATED: October 17, 2018

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