

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DBR, FINANCE, INC.,

Petitioner

v.

RUGGED CROSS HUNTING
BLINDS, LLC,

Patent Owner

Case IPR2024-00291

U.S. Patent No. 11,399,535 B2

PETITIONER'S NOTICE OF APPEAL

By Electronic Filing

Patent Trial and Appeal Board
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By Hand Delivery

Office of the General Counsel
U.S. Patent & Trademark Office
Madison Building East, 10B20
600 Dulany Street
Alexandria, VA 22314-5793

By Electronic Filing

Circuit Executive and Clerk of Court
United States Court of Appeals for the Federal Circuit
717 Madison Place, NW
Washington, DC 20439

Pursuant to 35 U.S.C. §§ 141(c), 142 and 319 and 37 C.F.R. §§ 90.2(a), and 90.3(a), DBR, Finance, Inc. (“Petitioner”) hereby appeals to the United States Court of Appeals for the Federal Circuit from the Patent Trial and Appeal Board’s (“Board”) the Final Written Decision entered on May 29, 2025 (Paper No. 43) (“Final Written Decision”), and from all underlying findings, determinations, rulings, opinions, orders, issues, and decisions regarding the *inter partes* review of U.S. Patent No. 11,399,535 B2 (“the ’535 Patent”). A copy of the Final Written Decision is attached as Exhibit 1.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Petitioner identifies that the issues on appeal include, but are not limited to: (1) whether the Board erred in

determining that Petitioner had not shown by a preponderance of the evidence that claims 1-5, 8-13 and 15-18 were unpatentable over the combined teachings of Whybrew in view of Strength;¹ (2) whether the Board erred in determining that Petitioner had not shown by a preponderance of the evidence that claims 6-7 and 19 were unpatentable over the combined teachings of Whybrew, Strength and Ransom;² (3) whether the Board erred in determining that Petitioner had not shown by a preponderance of the evidence that claim 14 was unpatentable over the combined teachings of Whybrew, Strength and Hazinski;³ and (4) any Board finding determination, judgment or order related to the foregoing issues, as well as all other issues decided adversely to Petitioner, including, without limitation, the Board's construction and application of the claim language, the Board's interpretation of the prior art, the Board's interpretation of expert evidence, and the Board's application of the law.

¹ Whybrew refers to U.S. Patent No. 8,375,968 B1, issued February 19, 2013 (Ex. 1002); Strength refers to U.S. Patent No. 6,709,993 B1, issued March 23, 2004 (Ex. 1003).

² Ransom refers to U.S. Patent No. 7,137,399 B1, issued November 21, 2006 (Ex. 1004).

³ Hazinski refers to U.S. Patent No. 5,385,165 B1, issued January 31, 1995 (Ex. 1005).

The Board issued its Final Written Decision on May 29, 2025. This notice is therefore timely filed within sixty-three (63) days of the Board's decision, as prescribed by 35 U.S.C. § 142 and 37 C.F.R. § 90.3(a)(1).

Petitioner is concurrently filing this Notice of Appeal with the Director of the United States Patent and Trademark Office and the Clerk of the United States Court of Appeals for the Federal Circuit, along with the required fees.

Dated: July 1, 2025

Respectfully submitted,

/s/ Dennis J. Abdelnour

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DBR, Finance, Inc.

CERTIFICATE OF SERVICE

The undersigned certifies that the original of this PETITIONER’S NOTICE OF APPEAL was filed via hand delivery on July 1, 2025 with the Director of the United States Patent and Trademark Office at the address below:

Office of the General Counsel
U.S. Patent & Trademark Office
Madison Building East, 10B20
600 Dulany Street
Alexandria, Virginia 22314-5793

A copy of this Notice of Appeal is also being filed and served on July 1, 2025 as follows:

USPTO Patent Trial and Appeal Board:

Patent Trial and Appeal Board
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

(via PTAB P-TACTS)

U.S. Court of Appeals for the Federal Circuit:

Clerk of Court
U.S. Court of Appeals for the Federal Circuit
717 Madison Place, N.W.
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(via CM/ECF with filing fee)

Counsel for Patent Owner Rugged Cross
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(via email pursuant to 37 C.F.R. § 42.6(e))

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Exhibit 1

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DBR FINANCE, INC.,
Petitioner,

v.

RUGGED CROSS HUNTING BLINDS, LLC,
Patent Owner.

IPR2024-00291
Patent 11,399,535 B2

Before KEVIN W. CHERRY, CYNTHIA L. MURPHY, and
JASON W. MELVIN, *Administrative Patent Judges*.

MURPHY, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

Denying Patent Owner's Motion to Exclude

I. INTRODUCTION

The parties in this proceeding are DBR Finance, Inc., (“Petitioner”) and Rugged Cross Hunting Blinds, LLC, (“Patent Owner”), and the challenged patent is U.S. Patent No. 11,399,535 B2 (Ex. 1001, “the ’535 Patent”).

Petitioner filed a Petition to institute *inter partes* review of claims 1–19 of the ’535 Patent (Paper 1, “Pet”); we instituted review (Paper 13);¹ Patent Owner filed a Response (Paper 17, “PO Resp.”), Petitioner filed a Reply (Paper 28, “Pet. Reply”), Patent Owner filed a SurReply (Paper 36, “PO SurReply”),² and an oral hearing was held on January 18, 2025 (Paper 42, “Tr.”). Patent Owner filed a Motion to Exclude (Paper 38), Petitioner filed an Opposition (Paper 39), and Patent Owner filed a Reply (Paper 40).

II. OVERVIEW OF DECISION

We determine that Petitioner has not proven that the challenged claims are unpatentable. Our determination is the same with or without excluding exhibit evidence, and, therefore, we deny Patent Owner’s motion to exclude.

¹ Prior to institution, Patent Owner filed a preliminary response (Paper 10), Petitioner filed a reply (Paper 11), and Patent Owner filed a sur-reply thereto (Paper 12). These papers addressed discretionary denial issues.

² Patent Owner filed a SurReply on January 24, 2025 (Paper 30) which was withdrawn (Paper 37), and a redacted version of the SurReply was filed on February 10, 2025 (Paper 36). Our citations to Patent Owner’s SurReply correspond to the paper filed on February 10, 2025 (Paper 36).

III. REAL PARTIES IN INTEREST

Petitioner identifies itself as the real party in interest, and Patent Owner identifies itself as the real party in interest. *See* Pet. 5, Paper 5, 1.

IV. RELATED MATTERS

Petitioner and Patent Owner identify the following civil actions as involving the '535 Patent:

Rugged Cross Hunting Blinds LLC v. DBR Finance, Inc., 1-23-cv-01944 (N.D. Ohio);

Rugged Cross Hunting Blinds LLC v. FeraDyne Outdoors LLC, 3:22-cv-00690 (W.D. Wisc.);

Rugged Cross Hunting Blinds LLC v. Tru-View LLC et al., 8:23-cv-02289 (M.D. Florida); and

Good Sportsman Marketing LLC v. Rugged Cross Hunting Blinds LLC, 4:23-cv-03243 (S.D. Texas).

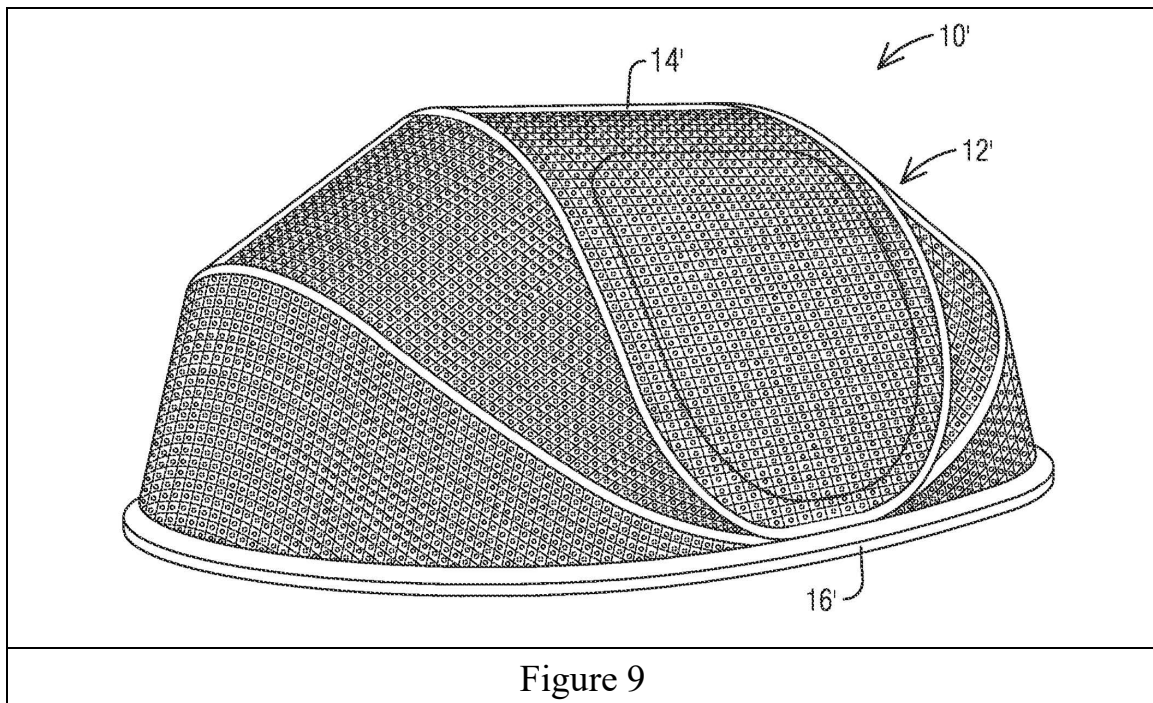
See Pet. 6–7, Paper 5.

V. THE '535 PATENT

The '535 Patent matured from an application filed on June 11, 2021, which was continuation of an application filed August 20, 2020, which was a continuation of an application filed on February 28, 2017. *See* Ex. 1001, codes (22), (63). The '535 Patent lists a provisional patent application, filed on February 29, 2016. Ex. 1001, code (60).

The '535 Patent discusses, by way of background that “hunting blinds are used to conceal a hunter’s location as game approaches.” Ex. 1001, 1:6–7. Per the '535 Patent, the inventors “designed an improved hunting blind.” *Id.* at 28–29.

The hunting blinds disclosed by the '535 Patent comprise a frame and panels of material. *See* Ex. 1001, 9:30–42. One such hunting blind is depicted in Figure 9, reproduced below.



The above drawing (Figure 9) “is a side view of a hunting blind in accordance with aspects of embodiments of the invention.” *Id.* at 2:15–16. The depicted hunting blind has a frame that “is formed of interconnected flexible frame members” and “has a structure that is similar to a pop-up tent.” *Id.* at 9:32–35.

Per the '535 Patent, conventional hunting blinds have “drawbacks” which the inventors’ improved hunting blind “overcomes.” Ex. 1001 2:28–30. The noted drawbacks are concerned with: structural integrity (*see id.* at 2:33); ventilation (*see id.* at 1:14); durability (*see id.* at 2:65); and camouflage (*see id.* at 2:62).

As for structural integrity, the inventors “recognized” that conventional hunting blinds “have limited structural integrity and thus are not capable of withstanding elements of the outdoors.” Ex. 1001, 2:32–34. To “overcome” this noted drawback, the inventors “designed a hunting blind with a frame that features interconnected extruded aluminum members that provide structural integrity to withstand elements of the outdoors.” *Id.* at 2:34–38.

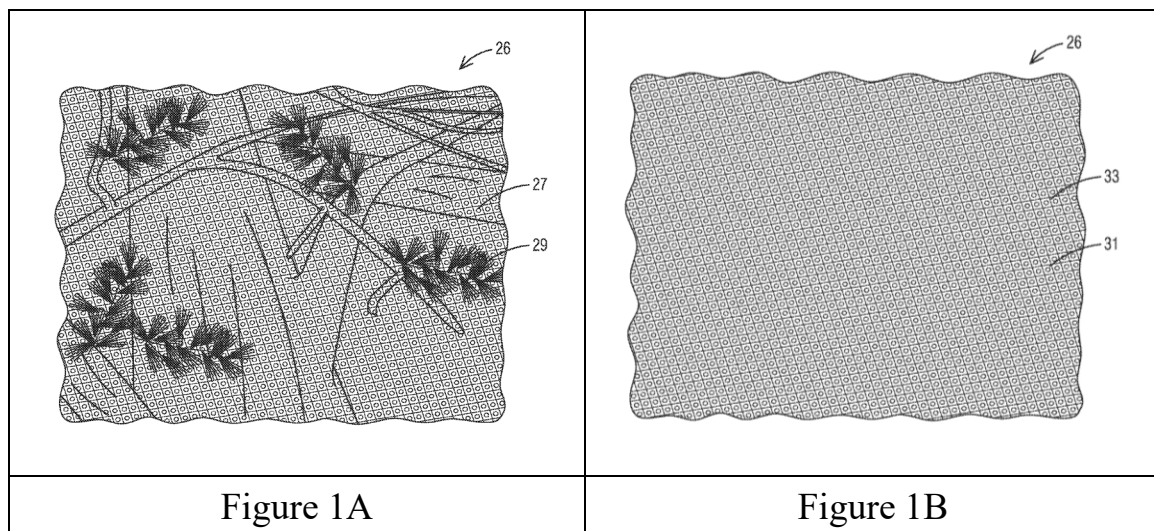
As for ventilation, the inventors “recognized” that conventional hunting blinds “are formed with closed panels that provide limited ventilation and thus have limited use in high humidity hunting climates.” Ex. 1001, 2:44–47. To “overcome” this drawback, the inventors “designed a hunting blind with panels of mesh material” that “provide ventilation to an interior of the hunting blind.” *Id.* at 2:47–52. In an “example embodiment,” the mesh material “allows airflow in a range of 30-40%,” such as 37%. *Id.* at 7:16–18.

As for durability, the inventors “recognized” that conventional mesh material “easily catches and tears on branches” in “dense woods.” Ex. 1001 2:56–60. To “overcome” this noted drawback, the inventors “selected a mesh material that is heavier and/or more durable than the conventional mesh material used in connection with hunting.” *Id.* at 2:63–67. In an “example embodiment,” the mesh material “has a tensile strength of approximately 160x160 pounds/inch and/or a tear strength of approximately 34x34 pounds/inch.” *Id.* at 7:20–23.

As for camouflage, the inventors “recognized” that conventional mesh material “is relatively light and transparent and thus would not effectively

camouflage the interior of the hunting blind.” Ex. 1001, 2:60–63. The ’535 Patent says that this drawback is also addressed by selecting “a mesh material that is heavier and/or more durable than the conventional mesh material used in connection with hunting.” *Id.* at 2:63–67. Per the ’535 Patent, the mesh material “advantageously provides an effective camouflage to the interior of the hunting blind and is more durable thereby extending a projected lifetime of the hunting blind.” *Id.* at 2:67–3:3. Thus, per the ’535 Patent, the inventors “designed a hunting blind with panels of mesh material that simultaneously provide ventilation to an interior of the hunting blind and camouflage the interior of the hunting blind.” *Id.* at 2:48–52.

The ’535 Patent describes a mesh material 26 which is depicted in Figures 1A and 1B, reproduced below.



One of the above drawings (Figure 1A) is “a first side 27 of mesh material 26” and the other drawing (Figure 1B) “is a perspective view of a second side 31 of mesh material 26.” Ex. 1001, 3:18–22; *see also id.* at 1:52–54. “[T]he first side 27 of the mesh material 26 features a

camouflage pattern 29.” *Id.* at 3:24–25. “[T]he second side 31 of the mesh material 26 includes a dark color coating, such as dark colored ink 33.” *Id.* at 3:31–33.

The mesh material 26 can be “made from a textile or cloth material that is a flexible material and includes a network of natural or artificial fibers (e.g. yarn or thread).” Ex. 1001, 6:60–63. More specifically, the mesh material 26 can be “formed by textiles that are formed by weaving.” *Id.* at 6:67–68. The mesh material 26, when part of a hunting blind, is “partially transmissive” during daylight conditions. *Id.* at 9:21–22.

“Different types of ink and printing techniques can be used to print the camouflage pattern 29 on the first side 27 and the dark colored ink 33 on the second side 31.” Ex. 1001, 5:35–37. “Each ink includes a colorant (e.g. dye or pigment) and a carrier liquid (e.g. solvent).” *Id.* at 5:37–39. The ’535 Patent describes different types of ink (i.e., a solvent based ink, an eco-solvent based ink, a latex based ink, an ultra-violet based ink), along with the corresponding process used to adhere the colorant to the material. *See id.* at 5:39–6:26.³

In the hunting blind shown in Figure 9, “panels of the mesh material 26” are “secured between the flexible frame members.” Ex. 1001, 9:36–37. The ’535 Patent also describes a hunting blind having, in addition to panels of the mesh material 26, a “roof 28” that includes “roof panels 30.” Ex. 1001, 8:16. “In an example embodiment, the roof panels 30 have a high

³ “In other embodiments, dark colored mesh material 26 is used and thus the second side 31 does not need to be coated with dark colored ink.” Ex. 1001, 3:40–42.

The above drawings (Figures 1C and 1D) are “side cutaway view[s]” of a hunting blind (Ex. 1001, 1:56–63) having “an exterior 48” and “an interior 50” (*id.* at 4:3–6). “A hunter 102 is positioned in the interior 50 of the hunting blind 10 and game 104 (e.g. deer) is positioned in [the] exterior 48 of the hunting blind 10.” *Id.* at 4:4–6. “[T]he hunting blind 10 is used during daylight conditions, when the sun 106 emits radiation 116.” *Id.* at 4:7–8. “During daylight conditions, the exterior of the hunting blind is visible from the interior of the hunting blind but the interior of the hunting blind is not visible from the exterior of the hunting blind.” *Id.* at 3:65–4:1.

The second side 31 of the mesh material 26 is directed towards the interior 50 of the hunting blind and so “incident radiation 110a from the hunter 102 is incident on the second side 31 of the mesh material 26.” Ex. 1001, 4:10–12, *see also* Fig. 1C. “A first portion 111a of the incident radiation 110a is absorbed by the coating of the second side 31,” “[a] second portion 112a of the incident radiation 110a is reflected off the second side 31 back into the hunting blind interior 50,” and “[a] third portion 114a of the incident radiation 110a is transmitted through the mesh material 26 to the game 104.” *Id.* at 4:10–24.

The first side 29 of the mesh material is directed toward the exterior 48 on the hunting blind and so “radiation 116 from the sun 106 is incident on the camouflage pattern 29 on the first side 27 of the mesh material 26.” Ex. 1001, 4:25–27. “A portion 118 of the incident radiation 116 is reflected off the camouflage pattern 29 to the game 104.” *Id.* at 4:27–28. “Since the intensity of the light from the camouflage pattern 29 is much greater than the intensity of the light from the interior 50 (e.g.

hunter 102), the interior 50 of the hunting blind 10 is not visible from the exterior 48 of the hunting blind 10.” *Id.* at 4:32–36.

“In some embodiments, the dark colored ink of the second side 31 is selected to maximize [an] absorbed portion 111a of the incident radiation 110a.” Ex. 1001, 4:14–16. “In other embodiments, an intensity ratio of the absorbed portion 111a to the incident radiation 110a for the second side 31 is greater than an intensity ratio of the absorbed portion 111b to the incident radiation 110b for the first side 27. *Id.* at 4:16–20. The “ratio of intensity” can be “approximately equal to 1,” “in a range from 0.9-1.1,” “in a range from 0.8-1.2,” “in a range from 0.5-2,” “in a range from 0.2-5,” or “in a range from 0.1-10.” *Id.* at 5:28–34.

VI. ILLUSTRATIVE CHALLENGED CLAIM⁴

1. [1A] A camouflage structure comprising:

[1B] a pop-up frame including a plurality of flexible frame members, said plurality of flexible frame members comprising at least two spaced apart frame members along a side of the camouflage structure and at least two spaced apart frame members along a roof of the camouflage structure; and

[1C] one or more panels of mesh material of interwoven fabric configured to be attached between the at least two spaced apart frame members that are along the side of the camouflage structure, said one or more panels comprising:

[1D] a first side with a camouflage pattern; and

⁴ The ‘535 Patent contains claims 1–19 (*see* Ex. 1001, 9:64–12:49) all of which Petitioner challenges (*see* Pet. 24). Claims 1 and 19 are independent; and claims 2–18 depend directly or ultimately from independent claim 1. Ex. 1001, 9:64–12:49.

[1E] a second side with a dark color coating, said second side opposite to the first side; and

[1F] one or more panels of non-mesh material provided along the roof of the camouflage structure and configured to be attached to the at least two spaced apart frame members that are along the roof of the camouflage structure to cover an area between the at least two spaced apart frame members;

[1G] wherein the one or more panels of the mesh material define an outer surface of the camouflage structure; and

[1H] wherein the one or more panels of non-mesh material are non-transmissive such that incident radiation from an exterior of the camouflage structure is not transmitted through the non-mesh material.

Ex. 1001, 9:64–10:23 (bracketing added).

VII. LEVEL OF SKILL

In the Petition, Petitioner contends that a person having ordinary skill in the art (“POSITA”) “would have a bachelor’s degree in physics, mechanical engineering, textile engineering, or a similar discipline, or at least two years of design experience in the field of hunting blinds.” Pet. 28.

Thus, Petitioner sets forth a wide range of skill levels in the Petition. For example, per Petitioner, someone with two years of design and experience in the field of hunting blinds, but absolutely no education in textiles or light transmission, would be an appropriate POSITA. Likewise, per Petitioner, someone having a bachelor’s degree in textile engineering or physics, and no experience in the field of hunting blinds, would be an appropriate POSITA.

As will soon become apparent, the arguments and evidence presented in this proceeding with respect to obviousness resulted in heavy concentration on textile tendencies and light transmissiveness. But as discussed above, the '535 Patent's overall objective is to enhance a hunter's experience when he/she is using a hunting blind in a hunting climate. *See e.g.*, Ex. 1001, 2:28–3:3. Not all of the enhancements offered by the '535 Patent to achieve this objective are tied to textile tendencies and light transmissiveness. *See id.* at 7:29–9:54. And the challenged claims contain limitations that are unrelated to the light-transmitting textile portions of a hunting blind. *Id.* at 9:65–10:3, 10:28–32, 10:50–57, 11:23–24, 11:28–40, 11:47–50, 12:1–7, 12:18–22, 12:25–38. As explained by Petitioner's expert, "[t]extiles, broadly defined, is one of the technologies at issue," and "coating, printing, and structural frameworks are relevant." Ex. 1007, 15.

We question, therefore, whether someone having an education in textile engineering or physics, but no experience in the field of hunting blinds, would be consistent with the level of skill portrayed by the '535 Patent. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We note that Petitioner's expert's experience, education, and qualifications are rooted in textiles, fibers and physics, and sophisticated subjects related thereto. *See* Ex. 1007 ¶¶ 14–20. But his deposition revealed that he has little or no experience in the field of hunting blinds. *See* Ex. 2038, 8–14.⁵

⁵ The same might be said of Patent Owner's expert. *See* Ex. 2031, ¶¶ 6–7; Ex. 1023, 16. However, our obviousness analysis leaned lightly, if at all, on her declarations and testimony.

We note that Petitioner’s priority arguments are based solely on whether a POSITA would appreciate that an alleged priority application disclosed a pop-up frame with a plurality of flexible frame members. *See* Pet. Reply 14–17. Although we do not address these arguments in this decision, they underscore that someone having a bachelor’s degree in textile engineering or physics, but no experience in the field of hunting blinds, might not be an appropriate POSITA.

That being said, our determination that the challenged claims have not been proven unpatentable would be the same regardless of where a POSITA’s resume landed within the wide level-of-skill range forth in the Petition. Thus, for the purposes of this proceeding, we consider someone having a bachelor’s degree in textile engineering or physics, but no experience in the field of hunting blinds, as an appropriate POSITA, and we accept Petitioner’s expert’s status as a POSITA.

VIII. CLAIM CONSTRUCTION

When interpreting the challenged claims of the ’535 Patent, we use “the same claim construction standard that would be used to construe the claim[s] in a civil action under 35 U.S.C. [§] 282(b).” *See* 37 C.F.R. § 42.100(b) (2020); *see also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). This standard (the “*Phillips* standard”) requires claims be given their ordinary and customary meaning, from the perspective of a POSITA taking into consideration the claims, specification, and prosecution history. *See Phillips* 415 F.3d at 1312–14.

A. Claim Terms in Controversy

“Only claims terms in controversy need to be construed” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Here, the claims terms in controversy reside in the independent claims’ recital of “one or more panels of mesh material of interwoven fabric . . . said one or more panels” comprising “a first side with a camouflage pattern” and “a second side with a dark color coating.” Ex. 1001, 10:4–11, 12:8–15.

B. Our Construction of the Claim Terms in Controversy

We construe the challenged claims as requiring the claimed panel(s) of mesh material (which include a camouflage pattern and a dark color coating) to have spaced holes/openings (i.e., a screen-like or net-like structure).

1. Mesh Material

In the Petition, Petitioner asks that “the term ‘mesh material’” be interpreted in accordance with “a plain and ordinary usage.” Pet. 25. Per Petitioner, the “plain and ordinary” meaning of the term “mesh material” is “a woven material of open texture with spaced holes therein.” *Id.* Per Petitioner, “[o]ther typical terms used to describe a mesh-like material” are “a screen material, or a netting material, which are believed to be synonyms.” *Id.* Patent Owner does not dispute that a mesh material would have an open texture with spaced holes therein. *See* PO Resp. 18.

We find that Petitioner’s proposed construction aligns with the ’535 Patent’s specification. *See* Ex. 1001. The drawings in the ’535 Patent depict

the mesh material 26 as having an array of uniformly spaced circular holes forming a net-like structure (*see id.*, Fig. 1A, 1B, 4, 9) or an array of uniformly spaced rectangular openings (*see id.* Fig. 8) forming a screen-like structure. The embodiments of the mesh material 26 listed in the '535 Patent (e.g., a mesh banner material, scrims, a network of fibers, etc.) are materials having net-like or screen-like structures. *See id.* at 6:47–7:28.⁶

Interpreting “mesh material” as a woven material having spaced holes/openings aligns with the '535 Patent’s prosecution history. *See* Ex. 1006. Throughout prosecution of the '535 Patent, the same prior art material was mapped to the claimed panel(s) of mesh material. *See id.* at 64–72, 122–106. The mapped-to material was described in the prior art reference as having a “net-like structure” with spaced “net holes” that are “not closed.” Ex. 2021, 4:1–5, *see also id.* at 2:58–3:6, 4:34–45, Figs. 1, 2a.

Petitioner provides a dictionary dedicated to fiber and textile technology. *See* Ex. 1008. This dictionary’s definitions of mesh fabrics (*id.* at 52), net (*id.* at 55), and screen (*id.* at 70), implicate a woven material having spaced holes and openings. Petitioner’s proposed construction and additional clarifications are consistent with these definitions.

Thus, we construe the claimed “mesh material” as “a woven material of open texture with spaced holes therein.” We also agree with Petitioner’s

⁶ As Petitioner points out (*see* Pet. 25), the '535 Patent says that the inventors “selected a mesh material that is heavier and/or more durable than the conventional mesh material used in connection with hunting.” Ex. 1001, 2:64–67. Petitioner does not contend, however, that making a mesh material heavier and/or more durable would prevent it from having a screen-like or net-like structure.

further clarification that “[o]ther typical terms used to describe a mesh-like material” are “a screen material, or a netting material, which are believed to be synonyms.”⁷

2. “Panels of Mesh Material”

In the Reply, Petitioner proposes a new interpretation of the claimed *panels* of mesh material. *See* Pet. Reply 12–13. Petitioner contends that “[t]he claim language does not state that the panels are mesh,” but rather require the panel of mesh material to comprise “(1) mesh material of interwoven fabric, (2) having a camouflage pattern on first side, and (3) having a dark color coating on the second side.” *Id.* at 12. Patent Owner disputes this interpretation. *See* PO SurReply 7–8.

Under Petitioner’s proposed construction, the panel merely needs to be made of a mesh material, not remain a mesh once incorporated into the completed panel. Thus, Petitioner essentially contends that, even if a base mesh material sacrifices its mesh-ness during dark-color coating, a panel of this now-non-mesh material would still be “one or more panels of mesh material” as required by the challenged claims. Pet. Reply 12–13. We

⁷ During the hearing, Petitioner argued that a “mesh” is “anything that has holes.” Tr. 15:19–24. Under this argued construction, a material having a few randomly spaced holes (due to, for example, defects or irregularities during the material’s manufacturing process) would qualify as a mesh. In essence, Petitioner is asking us to ignore the modifier “mesh” in the phrase “mesh material,” despite this word being treated as a meaningful modifier throughout the ’535 Patent’s specification (*see e.g.*, Ex. 1001, 6:47–7:28) and prosecution (*see e.g.*, Ex. 1006, 64–72, 122–106). Thus, even if we allowed Petitioner to raise this late construction, the interpretation argued during the hearing is not correct.

disagree. With our construction, such a non-mesh material could not be “one or more panels of mesh material” as required by the challenged claims.

Our construction aligns with the claim language; Petitioner’s proposed construction does not. *See* Ex. 1001, 10:4–19. The independent challenged claims set forth “one or more panels of mesh material” and then set forth “said one or more panels comprising: a first side with a camouflage pattern; and a second side with a dark color coating.” *Id.* at 10:4–11. The recited “said one or more panels” corresponds to the previously recited “one or more panels of mesh material,” not panels comprising a material that was only a “mesh” prior to printing/coating. *See id.* Also, the independent challenged claims set forth that “the one or more panels of **the** mesh material define an outer surface of the camouflage structure.” *See id.* at 10:18–19, 1:23–24 (emphasis added). And the panel(s) defining a hunting blind’s outer surface would include the dark color coating.

Our construction aligns with the ’535 Patent’s specification; Petitioner’s proposed construction does not. *See* Ex. 1001. The ’535 Patent repeatedly describes the relevant panel material in the hunting blind (i.e., post printing/coating) as a mesh material. *See id.*, Abst., 1:19–5:34, 6:47–7:28, 9:16–54, Figs. 1A, 1B, 9. The ’535 Patent expressly describes and depicts the mesh material 26 as including the camouflage pattern and the dark-color coating. *See id.* at 1:52–56, 3:24–25, 3:31–33, Figs. 1A, 1B. The ’535 Patent says that “panels” of this coated mesh material 26 “are used to form” a hunting blind. *Id.* at 3:22–26. The ’535 Patent says that “[m]esh material is presented for a hunting blind with a camouflage pattern printed on a first side and a second side with a color coating.” *Id.* at Abst. The ’535

Patent says that “mesh material of interwoven fabric is provided for a hunting blind including a camouflage pattern printed on a first side and a second side with a dark color coating.” *Id.* at 1:19–22; *see also id.* at 1:44–49.

Our construction aligns with the ’535 Patent’s prosecution history; Petitioner’s proposed construction does not. *See* Ex. 1006. As mentioned above, throughout prosecution of the ’535 Patent, the same prior art material was mapped to the claimed panel(s) of mesh material. *See* Ex. 1006, 64–72, 122–106. The mapped-to prior art mesh material was described during prosecution as an “interwoven fabric” with “a pattern” printed on a first side and “a dark color coating” on a second side. Ex. 1006, 64; *see also id.* at 122. And the mapped-to prior art mesh material (i.e., which included not only the interwoven fabric but also the printed pattern and the dark color coating) had a “net-like structure” with an array of uniformly spaced “net holes” that are “not closed.” Ex. 2021, 4:1–5, *see also id.* at 2:58–3:6, 4:34–45, Figs. 1, 2a.

Thus, we understand that claimed panel(s) of mesh material must have “a woven material of open texture with spaced holes therein,” even after the camouflage pattern is applied to one side and the dark color coating is applied to the other.

3. Ventilation

The ’535 Patent discloses a hunting blind “with panels of mesh material” that “provide ventilation to an interior of the hunting blind” (Ex. 1001, 2:48–51), and “[i]n an example embodiment, the mesh material 26 allows airflow in a range of 30–40% (*id.* at 7:16–18.).

Patent Owner asserts that, “[i]n the context of the ‘535 Patent, mesh material has holes that allow air and water to pass through.” PO Resp. 19. Petitioner disagrees. *See* Pet. Reply 10–11. However, we need only construe claims terms “to the extent necessary to resolve the controversy.” *Nidec Motor* 868 F.3d at 1017. And to resolve this controversy, we need not (and do not) address the degree to which the claimed panel(s) of mesh material must allow air and/or water to pass therethrough.

4. One-Way Visibility

The ‘535 Patent discloses a hunting blind having a one-way visibility such that “[d]uring daylight conditions, the exterior of the hunting blind is visible from the interior of the hunting blind but the interior of the hunting blind is not visible from the exterior of the hunting blind.” Ex. 1001, 3:65–4:1. Some of the challenged claims (i.e. claims 5, 11, 17, and 19) recite limitations corresponding to this one-way visibility, but many of the challenged claims (i.e., claims 1–4, 6–10, 12–16) do not. *See id.* at 9:63–12:47. We do not, therefore, construe the claim language in controversy as requiring one-way visibility.

IX. ASSERTED GROUNDS

Petitioner asserts claims 1–5, 8–13, and 15–18 are unpatentable under 35 U.S.C. § 103⁸ over Whybrew⁹ in view of Strength.¹⁰ Pet. 24.

Petitioner asserts claims 6, 7, and 9 are unpatentable under 35 U.S.C. § 103 over Whybrew in view of Strength and Ransom.¹¹ Pet. 24.

Petitioner asserts claim 14 is unpatentable under 35 U.S.C. § 103 over Whybrew in view of Strength and Hazinski.¹² Pet. 24.

X. OBVIOUSNESS

35 U.S.C. § 103 is the statutory basis for all of Petitioner’s asserted grounds of unpatentability. A claim is unpatentable under § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3)

⁸ The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. We apply the Post-AIA version of § 103 here, because the earliest application date listed in the ’535 Patent (February 29, 2016) is after the effective date of the AIA. *See* Ex. 1001, code (63); Prelim. Resp. 2.

⁹ US 8,375,968 B2, issued February 29, 2013. Ex. 1002.

¹⁰ US 6,709,993 B2, issued March 23, 2004. Ex. 1003.

¹¹ US 7,137,399 B1, issued November 21, 2006. Ex. 1004.

¹² US 5,385,165, issued January 31, 1995. Ex. 1005.

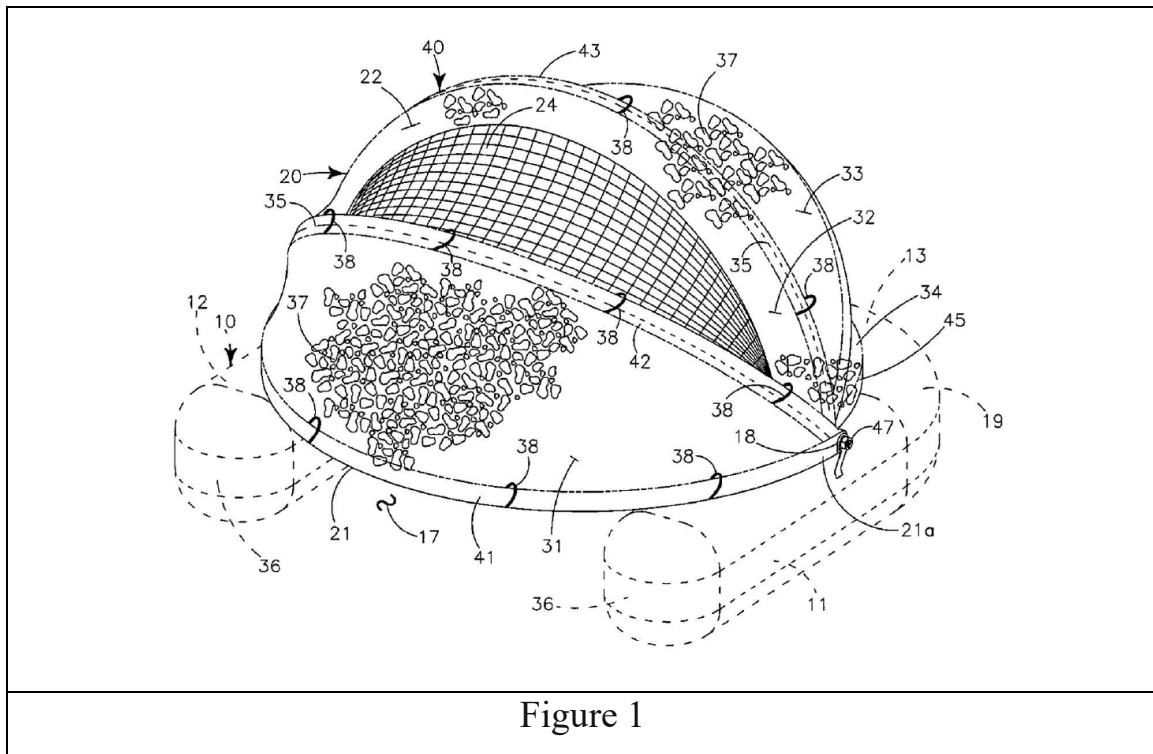
the level of skill in the art; and (4) objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

A. Overview of Asserted Prior Art

Independent claims 1 and 19 set forth “[a] camouflage structure” (Ex. 1001, 9:64, 12:1) comprising a “frame” (*id.* at 9:65, 12:2), “one or more panels of non-mesh material” (*id.* at 10:12, 12:17), and “one or more panels of mesh material of interwoven fabric” comprising “a first side with a camouflage pattern” and “a second side with a dark color coating” (*id.* at 10:4–11, 12:8–15). Petitioner’s asserted grounds for unpatentability rely upon Whybrew and Strength to teach these limitations. *See* Pet. 24, 38–47, 83, 84.

1. Whybrew

Whybrew discloses a “blind for hunting and wildlife observing activities” (Ex. 1002, 1:13–14) which is depicted in Figure 1, reproduced below.



The above drawing (Figure 1) “is an isometric front, top and left side view of [Whybrew’s] blind.” *Id.* at 1:65–67. The blind comprises “a flexible body 20” (*id.* at 4:40–41), “a mesh fabric window 26” (*id.* at 5:3), and “a frame 40” (*id.* at 4:41). The frame 40 is formed of flexibly resilient stays 41–45 that are “pivotally interconnected with one another.” *Id.* at 4:41–43; *see also* Fig. 8. “The pivotal interconnection of the stays allows the blind to be quickly and easily retracted” (*id.* at 3:14–17) from an “occupant concealment” position (*id.* at 1:66, *see also* Fig. 4) to an “occupant exposed” position (*id.* at 2:20–21, *see also* Fig. 10).

“The flexible body 20” (which does include the mesh fabric window 24) is “imprinted with a camouflage pattern 37.” Ex. 1002, 4:47–48. The camouflage pattern 37 is imprinted “at least on” its outer surface 22 and “preferably on both” its outer surface 22 and its inner surface 23. *Id.*

at 4:48–50. “The camouflage pattern 37 is formed by known means,” such as “dyed splotches” of color making the blind “difficult to distinguish from the surrounding environment.” *Id.* at 4:50–53.

The flexible body 20 is formed from sector-shaped sections 31–34 (i.e., a first section 31, a second section 32, a third section 33, a fourth section 34) having their adjacent edge portions fastened together with stitching 35. *See* Ex. 1002, 4:63–66. The mesh fabric window 24 “has a shape similar to a sector” (*id.* at 5:28–29), “is carried by the flexible body 20” (*id.* at 5:3), and is fastened “over an opening” in the second section 32 (*id.* at 5:4–5). When the blind is extended to the occupant concealment position, the mesh fabric window 24 “is stretched into a shape similar to that of the spacedly adjacent first section 31 of the body 20 and the spacedly adjacent third section 33 of the body 20.” *Id.* at 5:32–34.

The mesh fabric window 24 is preferably formed of a flexible mesh-type material having a weave that is less dense than the weave of the fabric material forming the flexible body 20.” Ex. 1002, 5:9–12. In a “preferred embodiment,” the mesh fabric window “is formed polyester porthole mesh.” Ex. 1002, 5:26–27. In the drawings, the mesh fabric window 24 resembles a grid of rectangular openings. *See id.* Figs. 1–7, 9. In either case, the mesh fabric window 24 has an array of uniformly spaced holes/openings (i.e., a screen-like or net-like structure).

“The material of the mesh fabric window 24 allows an occupant within the blind may see outwardly therethrough, but observers, including animals, outside the blind cannot see into the blind or distinguish human activity inside the blind.” Ex. 1002, 5:12–15. Whybrew calls this a

“‘one-way’ vision characteristic of the mesh fabric window 24.” *Id.* at 5:16. Whybrew describes this one-way vision characteristic as requiring the transmissiveness of a hunting-blind material to be considered in two directions: 1) “outside to inside” (which affects whether an animal can discern a hunter inside the blind); and 2) “inside to outside” (which affects whether the hunter inside the blind can see the animal). *Id.* 5:22–26.

“The ‘one-way’ vision characteristic of the mesh fabric window 24 results from, among other things, light differential between the exterior of the blind and the interior of the blind.” Ex. 1002, 5:16–18. “[S]ections 31, 32, 33, 34 of the body 20 are formed of a material that is not as translucent, or light permeable as the mesh fabric window 24” (*id.* at 5:19–21) so that “the interior of the blind is darker and less illuminated than the exterior of the blind.” *Id.* at 5:21–22.

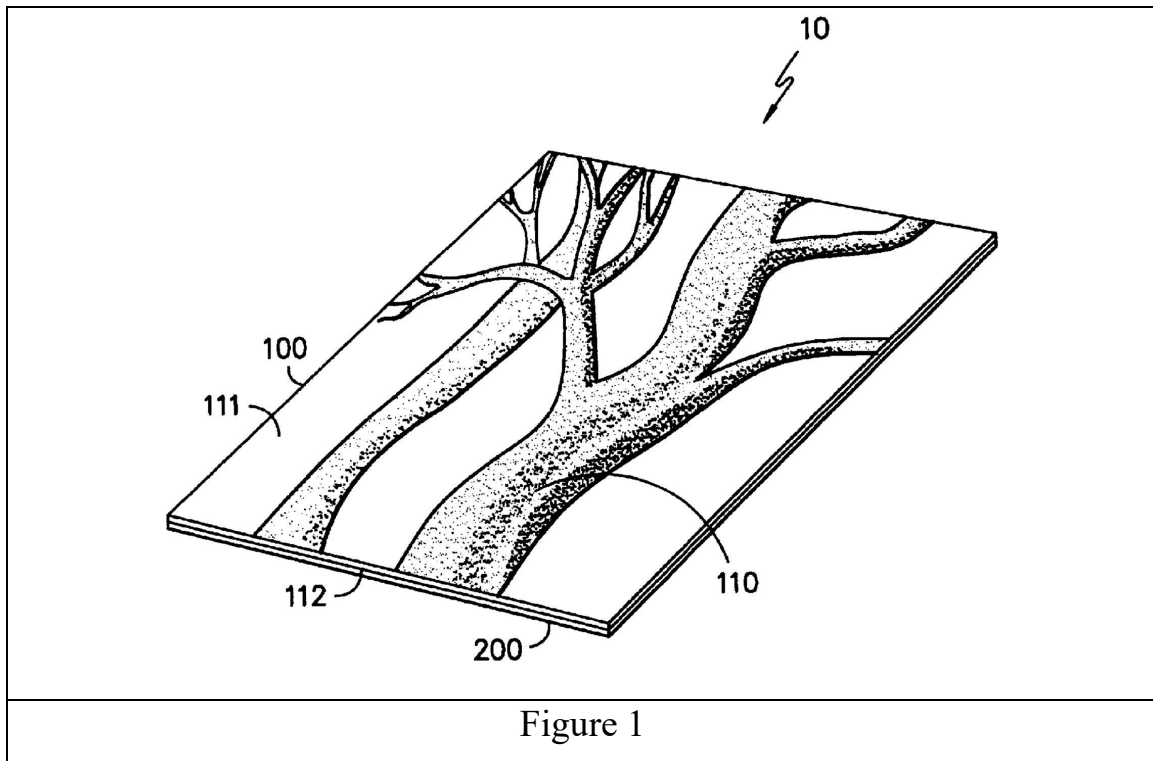
Thus, Whybrew ‘s light differential is due to the darkness provided by its non-window sections 31–34. *See* Ex. 1002, 5:3–27. And this darkness is provided by them being the light-blocking sections of Whybrew’s hunting blind.

2. Strength

Strength discloses a “camouflage material” (Ex. 1003, 1:37–38), but does not disclose a hunting blind (or any other structure) comprising a frame and panels of this material. Strength does discuss, by way of background, that camouflage is “used for applications such as blinds” (*id.* at 1:14) and that a “hunter” can be “inside [a] blind” (*id.* at 1:18). Thus, Strength discloses, implicitly if not explicitly, that its camouflage material can be used in a hunting blind (i.e., it can be used as a hunting-blind material).

Strength is concerned with a problem that occurs with “a blind having a translucent camouflage.” Ex. 1003, 1:17. Particularly, “translucent fabrics can result in the creation of silhouettes on the camouflage from a light source, such as the sun.” *Id.* at 1:14–16. More particularly, for example, “in a blind having a translucent camouflage, the sun behind the blind can create a silhouette on the camouflage material of a hunter inside the blind that is visible on the exterior of the blind.” *Id.* at 1:16–20. “To overcome this problem, the prior art has used heavier weight material that will be less translucent.” *Id.* at 1:20–22. But “the increased bulk and weight of the heavier material makes the camouflage less desirable for packing in and out of hunting areas.” *Id.* at 1:22–24. Thus, according to Strength, “there is a need for camouflage material that is light blocking and light weight.” *Id.* at 1: 24–25.

Strength’s disclosed “camouflage material 10” (Ex. 1003, 1:37–38) is depicted in Figure 1, reproduced below.



The above drawing (Figure 1) “is a camouflage material [10] incorporating [Strength’s] invention.” *Id.* at 1:31–32. “The camouflage material 10 is a base textile 100 having a camouflage pattern 110 on [a] first side or surface 111 of the base textile 100” and “includes a coating 200 on a second side or surface 112 of the base textile. *Id.* at 1:39–47.¹³

Strength discloses that the base textile 100 “can be natural materials, synthetic materials, or a blend thereof.” Ex. 1003, 1:49–50. The base textile 100 “can be woven, knit, nonwoven, or the like,” and/or “formed of monofilament, multifilament, and/or staple yarns.” *Id.* at 1:50–52. Strength further notes that “textiles with lower weights per square area generally

¹³ The base textile 100 and the coating 200 can be “selected such that the weight of the camouflage material 10 is about 5 oz/yd² or less, thereby providing a lighter weight camouflage material.” Ex. 1003, 2:29–32.

perform better in the field as the base textile 100 than heavier textiles.” *Id.* at 1:55–58. “Additionally, the yarns forming the base textile 100 can be textured yarns,” as “[i]t has been found that textured yarns provide a better bond with the coating 200.” *Id.* at 1:53–55.

Strength discloses that the camouflage pattern 110 “can be placed onto the first side 111 of the base textile 100 by printing, silk screening, air brushing, transfer printing, lithograph, jet printing, screen printing or any other suitable method of applying a design to a textile.” Ex. 1003, 1:59–63. “Alternatively, the base textile 100 can be formed with materials that create the camouflage pattern 110 on the first side of the base textile 100.” *Id.* at 1:63–65.

Strength discloses that the coating 200 “is a thermoplastic material that blocks light” (Ex. 1003, 1:66–67) and “is a thermoplastic material with a pigment” (*id.* at 2:34–35).¹⁴ “The coating 200 can be placed onto the second side 112 of the base textile 100 by hot melt coating, extrusion coating, laminating a sheet to the base textile, or other similar methods.” *Id.* at 2:26–29. “Thermoplastic materials that can be used” include “ethylene

¹⁴ “Strength discloses that “for applications such as hunting, the camouflage will need to be quiet, and have a high degree of flexibility at varying temperatures.” Ex. 1003, 1:26–28. Thus, the coating 200 “should be flexible to allow movement, and a quiet coating to avoid sound detection.” *Id.* at 2:13–14. The coating 200 “should also be a material that is flexible without cold cracking to temperatures down to twenty degrees Fahrenheit below zero (–20° F.).” *Id.* at 2:14–17. “[T]hermoplastic coating materials provide a coating that is flexible, quiet, and good cold cracking resistance” (e.g., “ethylene methyl acrylate provides a flexible and quiet coating with good cold cracking resistance”). *Id.* at 2:23–25.

methyl acrylate, polypropylene, polyethylene, polyesters, or the like.” *Id.* at 2:17–20. “Pigments can include materials such as carbon black, iron oxide, or other light blocking pigments.” *Id.* at 2:35–37. “The coating 200 can be an “ethylene methyl acrylate thermoplastic with a carbon black pigment” and/or the coating 200 can comprise “about 2% or more of carbon black in the total weight of the coating 200.” *Id.* at 2:37–41.

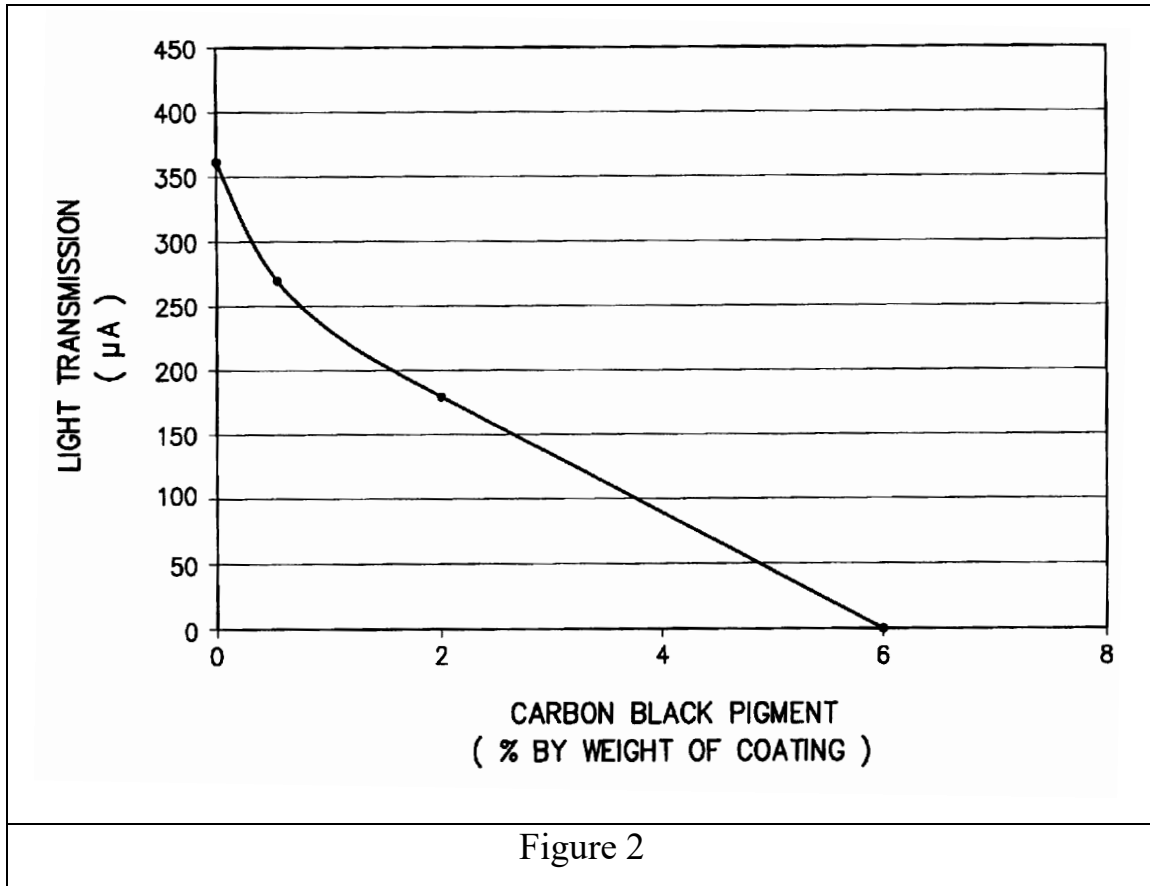
“The combination of the coating 200 and the base textile 100 provides a barrier to light such that shadows, such as shadows created by sunlight, are not visible on the opposite side of the camouflage material 10.” *Id.* at 1:67–2:3. “[A] transmission of about 100 μ A or less provides adequate blocking of light to prevent shadows or silhouettes on the opposite side of the camouflage material 100, and more preferably of about 60 μ A or less.” *Id.* at 2:7–11. “In one preferred embodiment, the coating 200 is an opaque coating.” *Id.* at 2:11–12.

Per Strength, its invention “can be better understood” with reference to four examples. Ex. 1003, 2:47–48, *see also id.* at 2:60–4:5. In each of these four examples, the base textile 100 was “a plain weave textile formed of 70 denier per yarn textured polyester yarn, with about 85 yarns per inch in the warp direction and about 90 yarns per inch in the fill direction, and a weight of about 2 oz/yd².” *Id.* at 2:62–66; *see also id.* at 3:13–15, 3:23–25, 3:32–4:1. In each of these four examples, the camouflage pattern 110 was “printed” onto the first side 111 of the base textile 100 “by transfer printing, or other suitable methods.” *Id.* at 2:66–3:3; *see also id.* at 3:13–15, 3:23–25, 3:32–4:1. And in each of these four examples, the coating 200 was “about a 3 mil. extrusion coating” (i.e., the coating 200 was “placed on” the second

side 112 of the base textile 100 “by hot melt extrusion”). *Id.* at 3:3–7; *see also id.* at 3:13–15, 3:23–25, 3:32–4:1.

In the first example, the coating 200 was “94% by weight of ethylene methyl acrylate and about 6% carbon black” and the resulting camouflage material 10 “had a transmission of 0 μ A.” Ex. 1003, 3:5–10. In the second example, the coating 200 was “about 98% by weight of the ethylene methyl acrylate and about 2% of the carbon black” and the resulting camouflage 10 “had a transmission of about 180 μ A.” *Id.* at 3:16–20. In the third example, the coating 200 was “about 99% by weight of the ethylene methyl acrylate, and about 1% carbon black,” and the resulting camouflage material 10 “had a transmission of about 260 μ A.” *Id.* at 3:25–28. In the fourth example, the coating 200 was “about 100% by weight of the ethylene methyl acrylate, with no contributing carbon black,” and the resulting camouflage material 10 “had a transmission of about 360 μ A.” *Id.* at 4:1–5.

Strength provides “a graph illustrating a plot of the light transmission” for these four examples (Ex. 1003, 2:48–50), which is depicted in Figure 2, reproduced below.



The above drawing (Figure 2) “is a graph illustrating the opacity of one embodiment of the present invention.” *Id.* at 1:33–34. Per Strength, with the “details” of its four examples, and the “knowledge” of this graph, “a person of ordinary skill in the art will understand how to extrapolate the desired light transmission values of the present invention to a specific working embodiment of the present invention.” *Id.* at 2:55–59.

In Strength, transmission is determined “[w]hen a 1000 ft.-candle light source (or 380 μA) (visual spectrum) is located adjacent to the camouflage pattern 110 side of the camouflage material 10, and a sensor is located adjacent to the coating 200 side of the camouflage 10.” Ex. 1003, 2:4–7, *see also id.* at 2:50–55. This measures camouflage material 10’s

transmissiveness (or lack thereof) from outside to inside, which affects whether an animal can see a hunter inside a hunting blind. (e.g., his/her silhouette or shadow). *See id.*

B. Petitioner’s Proposed Whybrew-Strength Combination

1. The Petition’s Mapping

Petitioner relies upon Whybrew to disclose a camouflage structure (i.e., a hunting blind) comprising a pop-up frame, one or more panels of non-mesh material (i.e., non-window sections 31–34), and a mesh fabric window 24. *See* Pet. 28–32, 47–50. Patent Owner does not dispute that Whybrew discloses these limitations. Instead, the parties’ dispute centers on limitations [1D] and [1E]—the requirements that the “panels of mesh material” have (1) “a first side with a camouflage pattern” (limitation [1D] and (2) “a second side with a dark color coating. . .” (limitation [1E]).

In the Petition, Petitioner offers two theories to account of limitation [1D]. First, Petitioner contends that Whybrew alone teaches a mesh material with a camouflage pattern thereon. Pet. 35. In particular, Petitioner notes that Whybrew describes its hunting blind as “camouflaged” (*id.* (citing Ex. 1002, 3:47)), and that Whybrew states that blind has a “camouflaged body” and a camouflaged pattern on the outer surface, (*id.* (citing Ex. 1002, 3:27–29, 4:46–50)). Petitioner further argues that “[n]o teaching in Whybrew precludes the camouflaged pattern 37 from residing on the outside surface of the mesh fabric window 24, and a [POSITA], appreciating the benefit of having the camouflage pattern 37 on the non-mesh material would readily appreciate the benefit of having the camouflage pattern 37 on the first side of

the fabric mesh window 24, in order to further benefit in making the hunting blind blend into its surrounding environment.” *Id.* (citing Ex. 1007 ¶ 104).

Second, Petitioner contends that Strength discloses limitations [1D] and [1E]. *See id.* at 36–47. Per Petitioner, the hunting-blind material disclosed by Strength constitutes “one or more panels of mesh material” as required by the challenged claims. *See id.*

In Petitioner’s proposed combination of the prior art, Whybrew’s mesh fabric window 24 is replaced by Strength’s hunting-blind material.¹⁵ *See* Pet. 38–47; *see also id.* at 38 (“PHOSITA would be motivated to modify Whybrew by replacing the mesh fabric window 24 with the mesh base textile 100 of Strength. . . .”). As best we understand it, Petitioner’s proposed Whybrew-Strength combination, as articulated in the Petition, does not leave Whybrew’s window 24 in place and coat it with a dark color coating or camouflage. Instead, Petitioner clearly explains that “[t]he combining of Whybrew and Strength involves a simple substitution” of Strength’s hunting-blind material “for the mesh fabric window 24 of Whybrew” (Pet. 43), and/or that a POSITA “would be motivated to modify the hunting

¹⁵ Petitioner’s exact wording in the Petition refers to Strength’s base textile 100 as the replacement for Whybrew’s window 24. *See e.g.*, Pet. 38, 43, 46. However, Strength describes the coating 200 as a separate component that is “placed onto the second side of the base textile 100” (e.g., by hot melt extrusion). Ex. 1003, 2:26–27, *see also id.* at 2:29–32, 3:6–10, 4:7–13, 4:28–30, Fig. 1. Thus, it is Strength’s “resulting” camouflage material 10 (*id.* at 3:8), not the base textile 100, that includes the coating 200.

blind of Whybrew by replacing the mesh fabric window 24” with Strength’s hunting-blind material (*id.* at 46).¹⁶

2. Petitioner’s Articulated Rationales for the Combination

Petitioner articulates three rationales why its proposed replacement of Whybrew’s window 24 with Strength’s camouflage material 10 would have been obvious to a POSITA: 1) it is a combination of prior art elements according to known methods to yield predictable results; 2) it is a simple substitution of one known element for another to obtain predictable results; and 3) it is taught/suggested/motivated by the prior art. Pet. 42.

As for the first two rationales, Petitioner says that they “go together.” Pet. 42. Petitioner contends that “[t]he combining of Whybrew and Strength involves a simple substitution of the base textile 100 of Strength for the mesh fabric window 24 of Whybrew.” *Id.* at 43. And Petitioner contends that this substitution “allows for a greater inhibition of light into the hunting blind, thus further increasing the light differential that improves the “one-way” viewing feature. *Id.* Thus, per Petitioner, a POSITA “would have a

¹⁶ In its Patent Owner Response, Patent Owner also argued against modifying Whybrew’s open mesh to have a camouflage pattern. PO Resp. 16. Petitioner responded to this argument in its Reply. Reply 16. However, the only theory offered in the Petition (or Reply) for limitation [1E] is the substitution of Strength’s fabric for Whybrew’s fabric, so that is the theory we address in this decision.

We note that we are not quite sure why a POSITA would modify Whybrew’s window 24 to include a camouflage pattern, and then subsequently replace the modified version of the window 24 with a hunting-blind material with both a camouflage pattern and a dark color coating. But that is a scenario set forth in the Petition.

reasonable expectation of success in both substituting one mesh for another and improving the “one-way” viewing capability of the modified hunting blind.” *Id.* at 43–44.

As for the third rationale, Petitioner contends that there is “motivation to combine” Whybrew and Strength because they are both “attempt to solve the same problem of avoiding a viewing of an occupant within a hunting blind from outside the blind.” Pet. 45. Thus, per Petitioner, a POSITA “would be motivated to modify the hunting blind of Whybrew by replacing the mesh fabric window 24 with the base textile 100 mesh material of Strength to further increase the light differential and thus improve the “one-way” viewing feature of the modified hunting blind.” *Id.* at 46.

C. Panels of Mesh Material

As we explained above, we do not agree that Petitioner properly raised its new theory of modifying the fabric of Whybrew to incorporate the dark coating of Strength. Thus, we focus on Petitioner’s arguments regarding the replacement of Whybrew’s mesh fabric with Strength’s fabric. Petitioner’s arguments rest on the premise that the replacement window (i.e., Strength’s camouflage material 10) would constitute “one or more panels of mesh material” as required by the challenged claims. *See* Pet. 42–47. As such, under our construction of “panels of mesh material,” the replacement window (i.e., Strength’s camouflage material 10) must be a woven material with spaced holes/openings (i.e., a screen-like or net-like structure). Patent Owner argues that “there are no holes” in Strength’s camouflage material 10 because, even if the base textile 100 has spaced holes, the coating 200 “eliminates them.” PO Resp. 19.

Petitioner argues that Patent Owner cannot persuasively prove that Strength's camouflage material 10 does not have holes. *See* Pet. Reply 9–10. We agree with Petitioner that there is not enough information in the record to ascertain whether or not Strength's camouflage material 10 has holes.

However, Patent Owner does not bear the burden of proving Strength's camouflage material 10 **does not** have holes. Rather, Petitioner bears the burden of proving that Strength's camouflage material 10 **does** have holes. And Petitioner's arguments that undermine Patent Owner's position that Strength's camouflage material 10 does not have holes, concurrently undermine Petitioner's position that Strength's camouflage material 10 does have holes.

Per Petitioner, "Strength is silent on whether visible holes exist in the fabric" (Pet. Reply 8) and "the Strength reference doesn't discuss anything about holes" (Tr. 14). Petitioner's expert testified that it was his "understanding that Strength is silent" on "whether or not there are holes." Ex. 2038, 44. Petitioner contends that Strength's silence about the presence/absence of holes hinders Patent Owner from proving that Strength's camouflage material 10 does not have holes. *See* Pet. Reply 8. We agree. But this same silence likewise hinders Petitioner from proving that Strength's camouflage material 10 does have holes.

Petitioner contends that the "molecular weight of Strength's polymer coating is relevant in determining film coverage over mesh holes," and Patent Owner's expert opinion did not "consider this property." Pet. Reply 9. Petitioner contends that "the molecular weight of the polymer coating can

vary over a range,” and “coverage needs to be evaluated over the range of molecular weight.” Ex. 1025 ¶ 54.

In particular, Petitioner contends that “when the molecular weight is below a threshold value (conditions about which Strength is silent) the film will not cover the holes in the fabric.” *Id.* Petitioner contends that a POSITA “knows a range of molecular weight exists for the film, and that for molecular weights below a threshold, the critical stress is larger, and holes will exist in the resultant film.” *Id.*

But Petitioner offers no insight on what molecular weights fall within the “range” allegedly known by a POSITA and/or at what “threshold” holes will exist in the resultant film. *See* Ex. 1025 ¶¶ 53–56. Indeed, Petitioner’s expert acknowledged that he did not know the “molecular weight” of the polymer coating in Strength. Ex. 2038, 40. As such, if Patent Owner’s expert opinion is deemed defective in this regard (*see* Ex. 1025 ¶ 54), Petitioner’s expert opinion should be deemed defective as well.

Petitioner argues that Patent Owner’s expert does not provide “calculations or other evidence” to “verify or confirm” her conclusion that Strength’s camouflage material 10 does not have holes. Ex. 1025 ¶ 54. Petitioner cites to Exhibits 1012 and 1013 as evidence that “[i]n evaluating coverage of an extruded film over a fabric, when the polymer weight is low, holes form in the film.” Ex. 1025, ¶ 55. But Petitioner does not adequately explain how or why this evidence can be used to verify or confirm its conclusion that Strength’s camouflage material 10 does have holes.

Although Exhibit 1012 provides an equation (Equation 2-59), Petitioner acknowledged that it was “not possible to do a calculation”

because “Strength provided no data about the molecular weight and no data about the relative extrusion rates.” Ex. 2038 40–41. And although Exhibit 1013 provides an overview of polymer latex film formations and properties, Petitioner acknowledged that Strength does not disclose a latex polymer film. *Id.* at 47. Thus, while Petitioner may cite to more evidence than Patent Owner, the cited evidence does little to verify or confirm Petitioner’s position that Strength’s camouflage material 10 does have holes.

Petitioner argues that Patent Owner’s expert opinion is flawed due to a lack of exactness about the thickness of coating 200. *See* Pet. Reply 10. In Strength’s examples, the coating 200 “was about a 3 mil extrusion coating.” Ex. 1003, 3:4. Petitioner contends that Patent Owner “provides no evaluation of what ‘about’ means in this context.” Pet. Reply 10.¹⁷ And Petitioner contends that “[e]ven a slight change in coating thickness could have significant impact on whether the coating covers holes.” *Id.* Yet Petitioner does not provide us with a precise coating thickness for the proposed replacement window, much less calculations confirming that a certain coating thickness, in conjunction with a certain molecular weight, would render holes in Strength’s camouflage material 10.

Petitioner contends that “[g]iven Strength’s silence on molecular weight,” a POSITA would conclude that Strength’s coating 200 “may cover the mesh holes under some circumstances, **but would not cover the holes under other, ordinary circumstances.**” Pet. Reply 10. This contention

¹⁷ Petitioner’s expert explains that this “about” could correspond to “coating between 1-5 mil in thickness” or could correspond to “a tighter range of 2.99–3.01 mil in thickness.” Ex. 1025 ¶ 56.

implicates that neither Patent Owner nor Petitioner can persuasively prove its position regarding the absence/presence of holes in Strength's camouflage material 10. And Petitioner, not Patent Owner, bears the burden of proof.

Additionally, Petitioner provides no details on what coating parameters would be in play under "ordinary circumstances." *See* Ex. 1025 ¶¶53–56. And, per Petitioner, there are "several parameters" (i.e., not just molecular weight) involved in the creation of holes. Ex. 2038, 29.

As discussed above, Petitioner's asserted grounds of unpatentability implicitly involve a POSITA tuning/adjusting light transmission values of Strength's camouflage material 10. *See* Pet. 41–47. As pointed out by Patent Owner (*see* PO SurReply 4), in Strength's examples, the only parameter varied for this tuning/adjusting is the percentage of carbon black. *See* Ex. 1003, 2:60–4:5. And Petitioner acknowledges that "whether or not there are holes, you can tune the amount of light transmission from the inside to the outside by changing the amount of carbon black in the material." Ex. 2038, 45.

Thus, when a POSITA is tuning/adjusting light transmission values of Strength's camouflage material, he/she would not be concerned with hole formation, and therefore, he/she would not be concerned with molecular weight. Per Petitioner, the absence or presence of holes in Strength's camouflage material 10 depends on delicately tailored coating conditions. But the grounds of unpatentability asserted in the Petition do not involve a POSITA carefully selecting coating conditions (e.g., molecular weight,

coating thickness, extrusion rates, etc.) in order to satisfy criteria unrelated to light transmission. *See* Pet. 42–47.

Moreover, the challenged claims do not just require the replacement window to have holes, it must have spaced holes/openings (i.e., a screen-like or net-like structure). And as pointed out by Patent Owner, Petitioner’s testimony “regarding coverage does not imply that is possible to have regular holes in the material of Strength after application of coating.” PO SurReply 1. Indeed, when Petitioner’s expert was asked whether there would be “a uniform placement of holes” in Strength’s camouflage material 10, he answered that it was “difficult to answer that question because there’s just not enough information.” Ex. 2038, 38.

Thus, Petitioner fails to prove that Strength’s camouflage material 10 constitutes “one or more panels of mesh material” as required by the challenged claims.

D. Objective Indicia of Non-Obviousness

Patent Owner submits arguments and evidence in an attempt to establish objective indicia of non-obviousness. *See* PO Resp. 2, 35–64; PO SurReply 16–25. Petitioner submits arguments and evidence that Patent Owner’s attempt fails. *See* Pet. Reply 7, 18–27. As discussed above, Petitioner has failed to show that the proposed Whybrew-Strength combination discloses all the limitations of the challenged claims. Thus, the outcome of our obviousness analysis would be the same regardless of the weight given the objective indicia of non-obviousness.

E. Synopsis

Petitioner does not show by a preponderance of the evidence that the proposed Whybrew-Strength combination accounts for all the limitations of the challenged claims. Thus, Petitioner fails to prove that the challenged claims are unpatentable.

XI. PATENT OWNER’S MOTION TO EXCLUDE

The exhibits of concern to Patent Owner are: Exhibits 1012, 1013, 1014, 2032-E, and 2032-F. *See* Paper 38, 2. Patent Owner is also concerned with certain declaratory statements by Petitioner’s expert that are related directly or tangentially to these exhibits. *See id.*; *see also* Ex. 1025 ¶¶ 28–38, 39–48, 62, and 63.

A. Exhibits 1012 and 1013

Exhibits 1012 and 1013 did not accompany the Petition (*see* Pet. 4); they were introduced as evidence in Petitioner’s Reply (*see* Pet. Reply 3). These exhibits were relied upon to support Petitioner’s position that a POSITA understands that when molecular weight is low, holes form in a film.” *See* Pet. Reply, Ex. 1025 ¶ 55. We took these exhibits into consideration in our obviousness analysis, and they did not further Petitioner’s cause.

Thus, there is no reason for us to exclude Exhibits 1012 and 1013.

B. Exhibit 1014

Exhibit 1014 did not accompany the Petition (*see* Pet. 4); it was introduced as evidence in Petitioner’s Reply (*see* Pet. Reply 3).

In its Reply, Petitioner relies on Exhibit 1014 as evidence when addressing Patent Owner’s arguments and evidence with respect to objective indicia of non-obviousness. *See* Pet. Reply 18–20. This reliance is appropriate, and Patent Owner does not assert otherwise. *See* Paper 38, 2. But the outcome of our obviousness analysis would be the same regardless of the weight given the objective indicia of non-obviousness.

In its Reply, Petitioner also relies on Exhibit 1014 as “evidence of the general knowledge of a [POSITA] that support Petitioner’s argument that it’s obvious to modify Whybrew in view of Strength to arrive at the claimed invention.” Pet. Reply 27–28. Petitioner argues that this reliance is appropriate because the Supreme Court requires “analysis that reads the prior art in context, taking into account the background knowledge possessed by a [POSITA]. *Id.* at 27. Thus, per Petitioner, “precluding the use of the general knowledge of a [POSITA] in evaluating a modification of Whybrew in view of Strength” would clash with Supreme Court precedent and would be “incorrect.” Pet. Reply 27.

But the issue here is not whether an obviousness analysis can take into consideration a POSITA’s general knowledge. Of course it can. If Exhibit 1014 qualified as prior art, and if this exhibit had been submitted with the Petition, and if the Petition tied knowledge evidenced by this exhibit to the asserted grounds of unpatentability, we would not be having this conversation.¹⁸

¹⁸ Earlier in this proceeding, Patent Owner wanted to submit supplemental evidence to counter exhibits (including Exhibit 1014) presented by Petitioner with its Reply, and we issued an order denying Patent Owner permission to

The issue here is whether Petitioner can rely upon prior art not cited in the Petition to alter its asserted grounds of unpatentability. We agree with Patent Owner that Petitioner cannot do so. *See* Paper 38, 10–12. And we agree with Patent Owner that Petitioner attempts to do so with Exhibit 1014. *See id.*

It is of the utmost importance that a petitioner in an IPR proceeding adhere to the requirement that the initial petition identify “with particularity” the “evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3). The proposed combination of the prior art set forth in the Petition involves the replacement of Whybrew’s window 24 with Strength’s camouflage material 10 in order to satisfy the challenged claims’ requirement that the panel of mesh material comprises a second side with a dark color coating. *See* Pet. 42–47. Petitioner’s articulated rationales did not entail coating the inside of Whybrew’s window 24 with a dark color coating.

In its Reply, Petitioner attempts to recast its proposed combination as a modification of Whybrew’s window 24, rather than a replacement thereof. *See* Pet. Resp.31. Petitioner contends that Ex. 1014 evidences that a POSITA “was aware of one-way mesh with camouflage on the outside and a dark

do so. *See* Paper 32). As pointed out by Petitioner (*see* Paper 39, 4) in this order we characterized Petitioner’s discussion of Ex. 1014 as being “in response to” Patent Owner allegedly asserting in its Response that an asserted ground of unpatentability “could not involve knowledge of [a] POSITA.” Paper 32, 2. This characterization does not equate to us saying that Exhibit 1014 should be treated as if it had been filed with the Petition and cited as evidence in the Petition in connection with Petitioner’s asserted grounds of unpatentability.

color on the inside,” and that “such mesh hid an occupant within the blind form game outside the blind.” Pet. Reply 31. Petitioner contends that, knowing this, a POSITA “would modify [Whybrew’s] mesh window to have a camouflage pattern on the outside and a dark color on the inside.” *Id.*

In other words, Petitioner contends that a POSITA would keep the mesh fabric window 24 on Whybrew’s hunting blind, and apply a dark color coating on its inside surface. Thus, Petitioner introduces, in its Reply, a new theory of unpatentability by reference to new evidence (i.e., Ex. 1014) that was not relied upon to support unpatentability in the Petition. We do not, therefore, factor Exhibit 1014 into our obviousness analysis.

Thus, there is no reason for us to exclude Exhibit 1014 and declaratory statements by Petitioner’s expert related thereto (*see* Ex. 1025, 39–48).

C. Exhibits 2032-E and 2032-F

Exhibits 2032-E and 2032-F were introduced by Patent Owner as attachments to an inventor declaration accompanying Patent Owner’s response. *See* PO Resp. 35. Patent Owner cited these exhibits as evidence of objective indicia of non-obviousness. *See id.* at 44–52.

Petitioner contentions about Exhibits 2032-E and 2032-F are made in conjunction with its contentions about Exhibit 1014. *See* Pet. Reply 27–31. For the same reasons discussed above in connection with Exhibit 1014, the relevance of these exhibits to our obviousness analysis is confined to objective indicia of non-obviousness, and, therefore, do not impact the outcome of our obviousness analysis.

Thus, there is no reason for us to exclude Exhibits 2032-E and 2032-F, and declaratory statements by Petitioner’s expert related thereto (*see* Ex. 1025 ¶¶ 28–38, 39–48).¹⁹

D. Synopsis

We deny Patent Owner’s motion to exclude Exhibits 1012, 1013, 1014, 2032-E, and 2032-F, along with declaratory statements by Petitioner’s expert related thereto.

SUMMARY TABLE

Claim(s)	35 U.S.C. §	References	Claim(s) Shown Unpatentable	Claim(s) not Shown Patentable
1–5, 8–13, 15–18	103	Whybrew, Strength		1–5, 8–13, 15–18
6, 7, 19	103	Whybrew, Strength, Ransom		6, 7, 19
14	103	Whybrew, Strength, Hazinski		14
Overall Outcome				1–19

¹⁹ Petitioner contends that Exhibits 2032-E and 2032-F are available as “prior art” (Pet. Reply 18) because the ’535 Patent is not “entitled to priority back to the provisional filing date” (*id.* at 14). Petitioner does not contend that the ’535 Patent’s priority otherwise comes into play in this proceeding. As the outcome of our obviousness analysis would be the same regardless of whether or not these exhibits qualify as prior art, we do not assess the priority of the ’535 Patent.

XII. ORDER

ORDERED that Petitioner *has not shown* based on a preponderance of evidence that claims 1–19 of U.S. Patent No. 11,399,535 B2 are unpatentable;

ORDERED that Patent Owner’s motion to exclude is denied; and

FURTHER ORDERED because this is a final written decision, the parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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