

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PPC BROADBAND, INC.,
Petitioner,

v.

TIMES FIBER COMMUNICATIONS, INC.,
Patent Owner.

IPR2022-00946
Patent 10,988,342 B2

Before BART A. GERSTENBLITH, GEORGE R. HOSKINS, and
FRANCES L. IPPOLITO, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

ORDER

Denying Petitioner's Motion to Exclude and
Granting Petitioner's Motions to Seal
37 C.F.R. §§ 42.14, 42.64(c)



I. INTRODUCTION

PPC Broadband Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–12 and 14–22 of U.S. Patent No. 10,988,342 B2 (Ex. 1001, “the ’342 patent”). Paper 2 (“Pet.”). Times Fiber Communications, Inc. (“Patent Owner”) did not file a Preliminary Response to the Petition. Applying the standard set forth in 35 U.S.C. § 314(a), we instituted an *inter partes* review as to all claims and grounds set forth in the Petition. Paper 7 (“Inst. Dec.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 20,¹ “PO Resp.”), Petitioner filed a Reply (Paper 26,² “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 34, “PO Sur-reply”). Patent Owner filed a Corrected Unopposed Motion to File Documents Under Seal and for a Protective Order (Paper 21),³ which we granted (Paper 24).⁴ Thereafter, Petitioner filed two Motions to Seal, seeking to seal portions of its Reply and Exhibits 1051–1053 (Paper 25), and demonstrative exhibits (Paper 40) that include the same information subject to the Protective Order.

¹ Patent Owner first filed its response that was expunged (Paper 19) and subsequently filed a “Corrected” version (Paper 20) under seal. A redacted version (Paper 17) was filed publicly. Although our citations herein are to the confidential “corrected” version of the Response, the pagination is the same in the publicly filed version.

² Petitioner’s Reply was filed under seal and a redacted version (Paper 28) was filed publicly. Although our citations herein are to the confidential version of the Reply, the pagination is the same in the publicly filed version.

³ Patent Owner first filed a motion that was expunged (Paper 18) and subsequently refiled the motion as a “Corrected” version.

⁴ As a result, Exhibits 2006 and 2010–2013 are under seal as well as portions of Patent Owner’s Response. *See* Paper 24.


Patent Owner did not oppose either of Petitioner's Motions to Seal. Additionally, Petitioner filed a Motion to Exclude Exhibits 2015 and 2016 (Paper 36), Patent Owner filed an Opposition to the Motion to Exclude (Paper 37), and Petitioner filed a Reply to Patent Owner's Opposition (Paper 41). A consolidated oral hearing was held on September 20, 2023, for this proceeding and three related proceedings between the same parties (IPR2022-00947, IPR2022-01087, and IPR2022-01088) and the transcript is of record. Paper 45 ("Tr.").

We have jurisdiction pursuant to 35 U.S.C. § 6. This Decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of the Challenged Claims. Petitioner bears the burden of proving unpatentability of the Challenged Claims. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioner must prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2021). Having reviewed the arguments and the supporting evidence, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 1–12 and 14–22 of the '342 patent are unpatentable.

A. Real Parties-in-Interest and Related Matters

Petitioner identifies itself and Belden Inc. as real parties-in-interest. *See* Pet. 89. In its Mandatory Notices, Patent Owner identifies itself as a real party-in-interest.⁵ *See* Paper 5, 1.

⁵ Patent Owner explains that "Times Fiber" does business as "Amphenol." PO Resp. 55.



There are five related IPR proceedings, challenging patents related to the '342 patent. *See, e.g.*, Paper 5, 1. They are IPR2022-00830 (U.S. Patent No. 10,913,632 B2, in which institution was denied after Patent Owner canceled all challenged claims); IPR2022-00831 (U.S. Patent No. 10,589,957 B2, in which institution was denied after Patent Owner canceled all challenged claims); IPR2022-00947 (U.S. Patent No. 11,001,471 B2, in which a final written decision is being issued contemporaneously with this Decision); IPR2022-01087 (U.S. Patent No. 10,941,016 B2, in which a final written decision will be issued); and IPR2022-01088 (U.S. Patent No. 10,906,771 B2, in which a final written decision will be issued).

The parties indicate that the '342 patent has been asserted in *Times Fiber Communications, Inc. v. PPC Broadband, Inc.*, No. 1:21-cv-01823-UNA (D. Del.) filed December 27, 2021 (“District Court Litigation”). Pet. 89; Paper 5, 1.

B. The '342 Patent

The '342 patent is directed generally to a system for using a cable reel. *See* Ex. 1001, code (57). Figure 1, reproduced below, shows cable reel apparatus 100 with supporting bag or box 101 shown in dotted lines. *Id.* at 7:22–23.

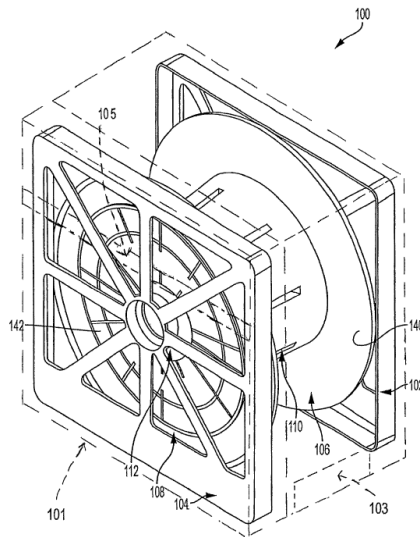


Figure 1, above, shows support frames 102 and 104 of cable reel 100 that rotatably support flanges 106 and 108 with hub member 110 therebetween. *Id.* at 8:40–43. The '342 patent teaches that the support flanges may be sized to fit within the outer frame portions of their respective support frame. *Id.* at 9:4–6. Further, the '342 patent teaches that hub member 110 supports and holds the cable coil. *Id.* at 9:23–24. Additionally, the hub member may include a first hub portion and a second hub portion that are axially aligned and configured to mate with one another. *See id.* at 9:24–27.

The '342 patent also discloses that cable reel 100 may be inserted into and supported by the payout bag or box wherein support frames 102 and 104 are attached to the bag's cover and base. Ex. 1001, 8:46–50.

C. Challenged Claims

Petitioner challenges claims 1–12 and 14–22. Claims 1, 12, and 19 are independent. Claims 1 and 12 are illustrative of the claimed subject matter and are reproduced below:

1. A system for using a cable reel apparatus, comprising:



providing components of a separable cable reel for assembly of a cable reel apparatus, the components of the separable cable reel including,

- a first frame,
- a second frame, the second frame being separate from the first frame,
- a first flange configured to engage the first frame, the first flange having an inner side and an outer side, the outer side of the first flange faces the first frame when the first flange is engaged therewith,
- a second flange configured to engage the second frame, the second flange having an inner side and an outer side, the outer side of the second flange faces the second frame when the second flange is engaged therewith;

providing a bag having a base and a cover, wherein the bag is sized to hold the cable reel apparatus when assembled, the first frame has a geometry configured for placement in the base of the bag, and the second frame has a geometry configured for placement at or near the cover of the bag; and

providing a pre-wound, reel-less coil of cable that is separate from the separable cable reel,

wherein the first and second flanges are configured to releasably couple with one another to support the pre-wound, reel-less coil of cable therebetween.

Ex. 1001, 11:35–61.

12. A system for using a cable reel apparatus, comprising:

providing components of a separable cable reel for assembly of a cable reel apparatus, the components of the separable cable reel including,

- a first frame,
- a second frame, the second frame being separate from the first frame,

a first flange having an inner side and an outer side, the first flange being configured for engaging the first frame such that the outer side of the first flange faces the first frame, and the first flange having a first hub portion on the inner side of the first flange, and

a second flange having an inner side and an outer side, the second flange being configured for engaging the second frame such that the outer side of the second flange faces the second frame, and the second flange having a second hub portion on the inner side of the second flange; and

providing a bag having a base and a cover, wherein the bag is sized to hold the cable reel apparatus when assembled, the first frame is configured to be disposed in the base of the bag, and the second frame is configured to be disposed at or near the cover of the bag; and

providing a pre-wound, reel-less coil of cable that is separate from the separable cable reel, and

wherein the first and second hub portions are sized to fit within the inner diameter of the coil of cable and are configured to releasably couple with one another to form a hub member for supporting the pre-wound, reel-less coil of cable between the first and second flanges.

Id. at 12:26–56.



D. Alleged Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §⁶	Reference(s)/Basis
1–12, 14–22	103	Brochure, ⁷ Blunt ⁸
1–12, 14–22	103	Brochure, Blunt, Johanson ⁹
1–12, 14–22	103	Brochure, Blunt, Fontana ¹⁰
1–12, 14–22	103	Brochure, Blunt, Johanson, Fontana

Pet. 2.

Petitioner supports its challenge with a Declaration of Dr. Charles A. Eldering (Ex. 1002), a Declaration of Ms. Cary Mullin (Ex. 1009), a Declaration of Rebecca Firmani (Ex. 1038), and a Declaration of Mark

⁶ The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. The ’342 patent was filed on October 19, 2020, and claims priority to an application filed February 27, 2015. Ex. 1001, codes (22), (60). Accordingly, we apply the current version of § 103.

⁷ Perfect Tote™ 500 Eco Brochure, PPC (“Brochure,” Ex. 1006). Petitioner asserts Brochure is a printed publication as of September 25, 2014, when it was disseminated at the Cable Tec Expo 2014 in Denver, Colorado. See Pet. 9–17 (citing Exs. 1007, 1009, 1010, 1016, 1018–1038).

⁸ U.S. Patent Application Publication No. 2012/0168554 A1, published July 5, 2012 (“Blunt,” Ex. 1004).

⁹ U.S. Patent No. 7,938,357 B2, issued May 10, 2011 (“Johanson,” Ex. 1013).

¹⁰ U.S. Patent No. 6,145,780, issued Nov. 14, 2000 (“Fontana,” Ex. 1005).

[REDACTED]

Banick (Ex. 1039). Patent Owner supports its arguments with a Declaration of Rakesh Thakare, one of the named inventors listed on the '342 patent (Ex. 2004) and a Declaration of Sarah Propst in Response to Petitioner's Objections to Patent Owner's Exhibits (Ex. 2019). Additionally, Patent Owner filed deposition transcripts of Charles A. Eldering, Ph.D. (Ex. 2001), Rebecca Firmani (Ex. 2002), and Cary Mullin (Ex. 2003).

E. Level of Ordinary Skill in the Art

In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Custom Accessories, Inc. v. Jeffrey-Allan Indus. Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. United States*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioner contends that a person of ordinary skill in the art ("POSITA") at the time of the invention of the '342 patent "would have at least a bachelor's degree in physics or engineering and experience with the installation of cable." Pet. 4 (citing Ex. 1002 ¶ 15).

Patent Owner does not dispute this definition. PO Resp. 2.

Based on the complete record before us, we find (as we did in the Institution Decision) that Petitioner's proposal is consistent with the level of ordinary skill in the art reflected by the '342 patent and the prior art of record. *See* Inst. Dec. 7–8 (citing *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001)). Therefore, we maintain and reaffirm our adoption of

[REDACTED]

the level of ordinary skill in the art as proposed by Petitioner in our consideration of the issues presently before us.

II. CLAIM CONSTRUCTION

We interpret the '342 patent claims “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). This “includ[es] construing the claim[s] in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” *Id.*

Petitioner proposes “the plain meaning of each claim term can be applied.” Pet. 5.

Patent Owner agrees with the caveat that “the prior art relied on in the Petition does not disclose the subject matter of the Prepackaged Claim [7] under any reasonable construction, including their plain meaning.” PO Resp. 2.¹¹

Based on our review of the complete record, we maintain that no explicit construction of any claim term is needed to resolve the issues presented by the parties and resolved in this Decision. *See* Inst. Dec. 8 (citing *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019)).

¹¹ Patent Owner refers to claim 7 as the “Prepackaged Claim” containing the “prepackaged” limitation. PO Resp. 2. We note that claims 8–10 depend from claim 7 and also require this same limitation. Ex. 1001, 12:17–23. As such, our discussion of the “prepackaged” limitation also applies to claims 8–10.

III. ANALYSIS

A. *Principles of Law*

The U.S. Supreme Court set forth the framework for applying the statutory language of 35 U.S.C. § 103 in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966):

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

The Supreme Court explained in *KSR International Co. v. Teleflex Inc.* that

[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (alteration in original))).

“Whether an ordinarily skilled artisan would have been motivated to modify the teachings of a reference is a question of fact.” *WBIP, LLC v.*

[REDACTED]

Kohler Co., 829 F.3d 1317, 1327 (Fed. Cir. 2016). “[W]here a party argues a skilled artisan would have been motivated to combine references, it must show the artisan ‘would have had a reasonable expectation of success from doing so.’” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360–61 (Fed. Cir. 2017) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068–69 (Fed. Cir. 2012)).

B. Ground 1: Obviousness Based on Brochure and Blunt

Petitioner asserts the combination of Brochure and Blunt would have rendered the subject matter of claims 1–12 and 14–22 obvious to one of ordinary skill in the art at the time of the invention. Pet. 17–81. Petitioner sets forth a detailed analysis showing how the combined teachings of Brochure and Blunt meet the elements of claims 1–12 and 14–22. *Id.* For example, Petitioner asserts that Brochure¹² depicts the Perfect Tote™ 500 Eco cable tote (“Perfect Tote™”) “with instructions on how to install a cable reel in the bag, disclosing all elements of the Challenged Claims except structural detail of the hub of the reel between its two flanges.” *Id.* at 17 (citing Ex. 1002 ¶ 40). Petitioner relies on Blunt as “disclos[ing] a cable reel compatible with the [Perfect Tote™] with a reel structure that allows for replenishing the cable supply” and, thus, the combination of Brochure with

¹² The parties italicize the name of each reference (e.g., *Brochure*) as well as the word *Tote* when referencing Petitioner’s Perfect Tote™ product. Those italics have been removed from each quote without further reference to their removal.


Blunt's reel structure would have rendered the Challenged Claims obvious. *Id.* (citing Ex. 1002 ¶¶ 40–58).

Petitioner contends that one of ordinary skill in the art would have been motivated to “modify Brochure’s cable reel with Blunt’s reel structure or substitute Brochure’s cable reel with Blunt’s reel 34” to . . . replenish the supply of cable in the cable reel installed in the [Perfect Tote™] when it is exhausted in an environmentally friendly way.” Pet. 27 (citing Ex. 1002 ¶¶ 53–58; Ex. 1004 ¶ 107). Additionally, Petitioner asserts that one of ordinary skill in the art “would have expected success in modifying Brochure’s cable reel with the reel structure of Blunt’s reel 34” or substituting Brochure’s cable reel with Blunt’s reel 34” because the modification would merely involve using a known technique to improve similar devices in the same way taught.” *Id.* at 28 (citing Ex. 1002 ¶ 55).

Patent Owner opposes some aspects of Petitioner’s challenge. *See generally* PO Resp.; PO Sur-reply. Specifically, Patent Owner does not contest Petitioner’s argument that the combination of Brochure and Blunt teaches the subject matter of claims 1–6, 11, 12, and 14–22.

Rather, Patent Owner contests whether the combination of Brochure and Blunt teaches the subject matter of claim 7, which depends from claim 1. *See* PO Resp. 2–7. Because claims 8–10 depend from claim 7, we also apply Patent Owner’s contentions presented for claim 7 to claims 8–10. *See* Ex. 1001, 12:13–23.

Additionally, we observe that Patent Owner does not contest Petitioner’s argument that one of ordinary skill in the art would have been motivated to combine the teachings of Brochure and Blunt with a reasonable

[REDACTED]

expectation of success, for any of the claims challenged under this Ground. *See* PO Resp. Patent Owner’s sole argument directed to claims 1–6 and 11, 12, and 14–22 pertains to objective indicia of nonobviousness, an argument which Patent Owner asserts demonstrates the non-obviousness of not just claim 7 (which Patent Owner refers to as “the Prepackaged Claim” in this proceeding), but of all the Challenged Claims. *Id.* at 15. We address Patent Owner’s objective indicia of nonobviousness after we address the parties’ arguments regarding the claims challenged in Ground 1.

1. *Level of Skill*

The level of ordinary skill in the art at the time of the invention is discussed above. *See supra* § I.E.

2. *Scope and Content of the Prior Art*

a) *Summary of Brochure (Ex. 1006)*

Brochure is a one-page document describing the features and use of the Perfect Tote™ 500 Eco made by PPC. Ex. 1006. Brochure describes how to install a cable reel in the bag so that the reel fits in the frame hub. *Id.* Below is a figure from Brochure showing the bag with a cable reel inside. *Id.*



The figure above shows the frame on the inside of the open flap, indicated by an arrow. *Id.* Brochure also shows where the cable payout is located. *Id.*



The figure above provides two views of the bag when closed and indicates the location of the cable payout opening in the closed bag. *Id.*

Brochure further provides instructions on how to use the illustrated cable tote. In step 1: “Insert the cable reel into the bag so that the flange center hole fits over the frame hub and so that the cable pays straight across the bottom of the reel and out the opening of the bag.” Ex. 1006. In step 2:

[REDACTED]

“Close the side panel and ensure that the frame hub is positioned in the cable reel flange opening.” *Id.* In step 3: “Zip the side panel so it is secured.” *Id.*

b) Summary of Blunt¹³ (Ex. 1004)

Blunt is a reference titled “System for Storing a Bulk Supply of Cable for Controlled Payout and Method of Using the System.” Ex. 1004, code (54). Blunt discloses “a system for storing a wrapped supply of cable for controlled payout.” *Id.* ¶ 30. Blunt further discloses that the wrapped supply of cable is placed within a container and sits on a first axis. *Id.* Blunt states that the supply of wrapped cable turns on the first axis and is “controllably paid out through the peripheral wall opening.” *Id.* Figure 11, reproduced below, shows an exploded view of the container and the supply of wrapped cable.

¹³ Blunt is assigned to Petitioner. Ex. 3001.

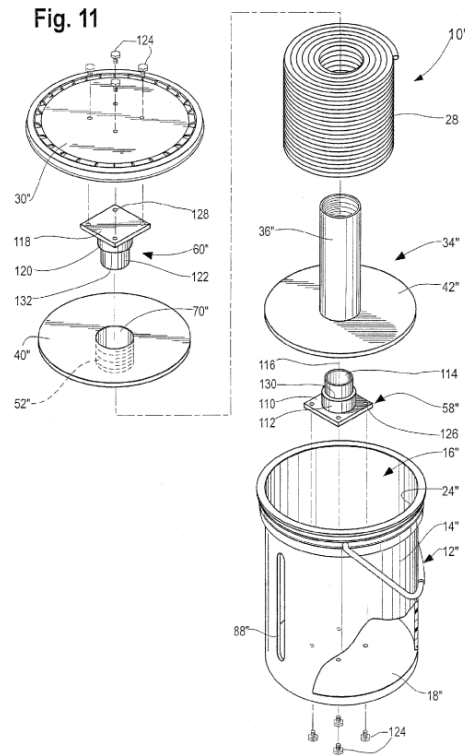


Figure 11 above shows shaft 114 mounted to the bottom of container 18".
Id. ¶¶ 92–93. The cable reel sits on shaft 114 and rotates to payout cable.
See id. ¶¶ 30, 97. Flange 40" may be “selectively separated” from core 36"
in order to add pre-wound cable 28 to cable reel 34". *Id.* ¶¶ 72–73.

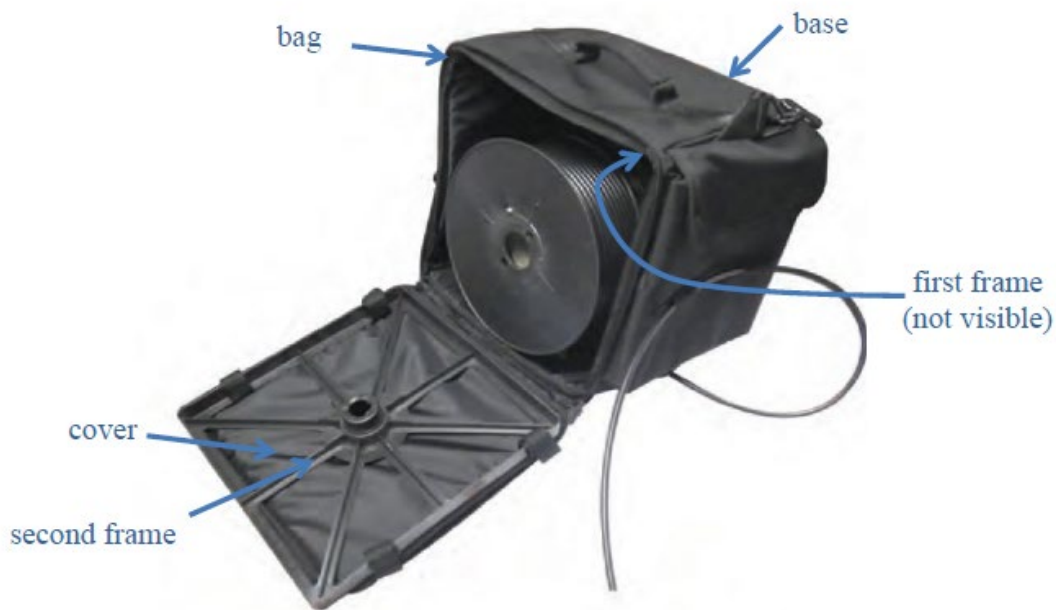
3. Claim 1

Independent claim 1 recites “a system for using a cable reel apparatus” that provides “components of a separable cable reel for assembly of a cable reel apparatus, the components of the separable cable reel including, a first frame, a second frame, the second frame being separate from the first frame” and “a bag having a base and a cover, wherein the bag is sized to hold the cable reel apparatus when assembled, the first frame has a geometry configured for placement in the base of the bag, and the second

frame has a geometry configured for placement at or near the cover of the bag.” Ex. 1001, 11:35–41, 11:51–56.

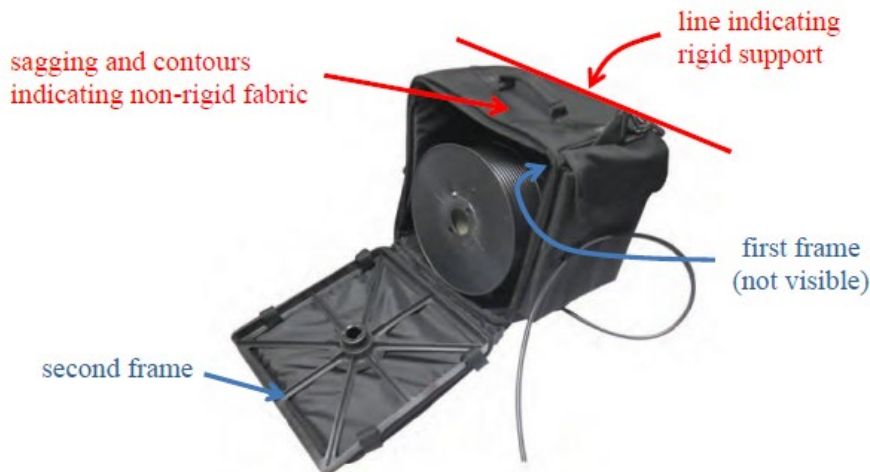
Petitioner contends that Brochure discloses a cable reel holding a coil of cable along with instructions on how to install the cable reel in the Perfect Tote™. Pet. 34 (citing Ex. 1002 ¶ 61). According to Petitioner, the Perfect Tote™ “has an opening ‘for smooth cable payout’ and includes a first frame disposed in the base of the bag and a second frame disposed at the cover for supporting the cable reel[.]” *Id.*; *see id.* at 37 (“A POSITA would have understood that Brochure discloses a ‘first frame’ in the base of the bag and a ‘second frame’ in the cover of the bag, the ‘second frame being separate from the first frame.’”) (citing Ex. 1002 ¶ 64).

Petitioner’s annotated version of a figure shown in Brochure is provided below.



Pet. 38. As shown above, Petitioner marked one of Brochure's figures to indicate a bag, base, first frame, cover, and second frame in blue. Also shown in the figure is a cable reel inside the bag. *Id.*

Petitioner's annotated figure acknowledges that the "first frame" is "not visible," however, Petitioner contends that a POSITA would understand that the base of the bag appears rigid and therefore contains an identical yet separate frame from the second frame, as shown in the below annotated figure provided by Petitioner. *See* Pet. 38.



Pet. 22. In the annotated figure above, Petitioner marks with red arrows "sagging and contours indicating non-rigid fabric" and, separately, "a line indicating rigid support." *Id.* Referring to this annotated figure, Petitioner asserts that the frames in Brochure are inside the bag's base and cover, and that the Perfect Tote™ "would not work without this duplicate frame in the base of the bag because the flanges of the cable reel would have to be rotatably supported on opposite ends in a balanced way for the bag to function for cable payout." *Id.* at 21.

[REDACTED]

Patent Owner does not challenge Petitioner’s analysis and evidence showing these limitations of claim 1 are met by the combination of Brochure and Blunt. *See generally* PO Resp.

We find Petitioner’s arguments persuasive as to these limitations of claim 1 and supported on the complete record before us, and, therefore, we adopt them as our own findings. For example, we observe that Brochure teaches, as Petitioner has shown in its annotated figures above, a bag, a coil of cable inside the bag, and a visible “second frame” in the bag’s cover. Further, Brochure provides instructions for installing the cable reel in the bag. Ex. 1006. Step 1 instructs to “[i]nsert the cable reel into the bag so that the flange center hole fits over the frame hub,” and Step 2 states “[c]lose the side panel [to] ensure that the frame hub is positioned in the cable reel flange opening.” *Id.* Read together, we agree with Dr. Eldering’s testimony that a POSITA would have understood that Step 1 is performed while the side panel (i.e., cover) is open, and that the “frame hub” of Step 1 is not the “frame hub” of the “second frame,” but a part of a duplicate frame in the base of the bag towards which the cable reel is inserted. *See* Ex. 1002 ¶ 44. We note further that Step 1 presumes the cable reel is not in the bag, but must be assembled into the bag using, for example, the frame hub. *See* Ex. 1006. Dr. Eldering further explains that “it was well known to a POSITA that a cable payout container includes two duplicate frames positioned on opposite ends inside the container, each frame including a frame hub to rotatably support a cable reel in the container for cable payout.” Ex. 1002 ¶ 45. Because of this, Dr. Eldering reasons that “a POSITA would have understood that the *Tote* bag along with its installation

instructions as disclosed in Brochure would have a duplicate frame in the base of the bag to support a cable reel for cable payout.” *Id.*

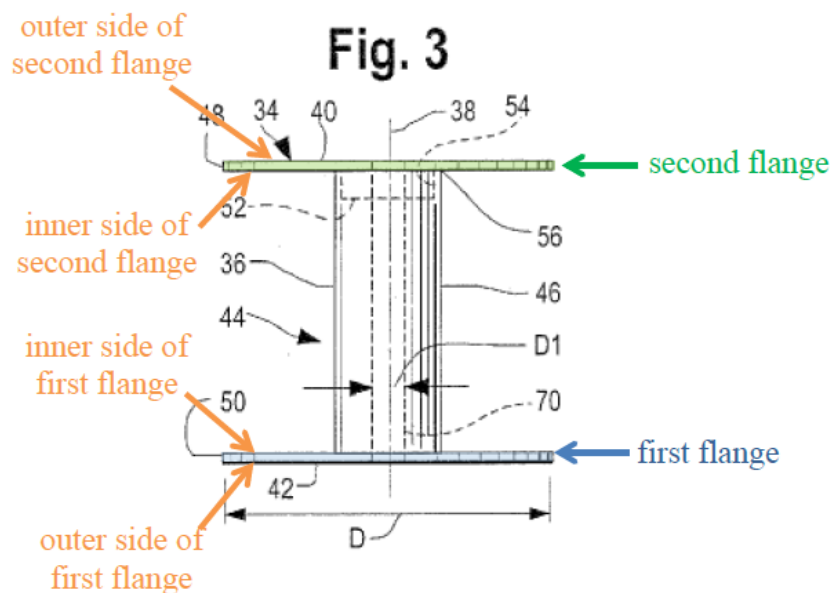
Additionally, claim 1 recites:

a first flange configured to engage the first frame, the first flange having an inner side and an outer side, the outer side of the first flange faces the first frame when the first flange is engaged therewith,

a second flange configured to engage the second frame, the second flange having an inner side and an outer side, the outer side of the second flange faces the second frame when the second flange is engaged therewith[.]

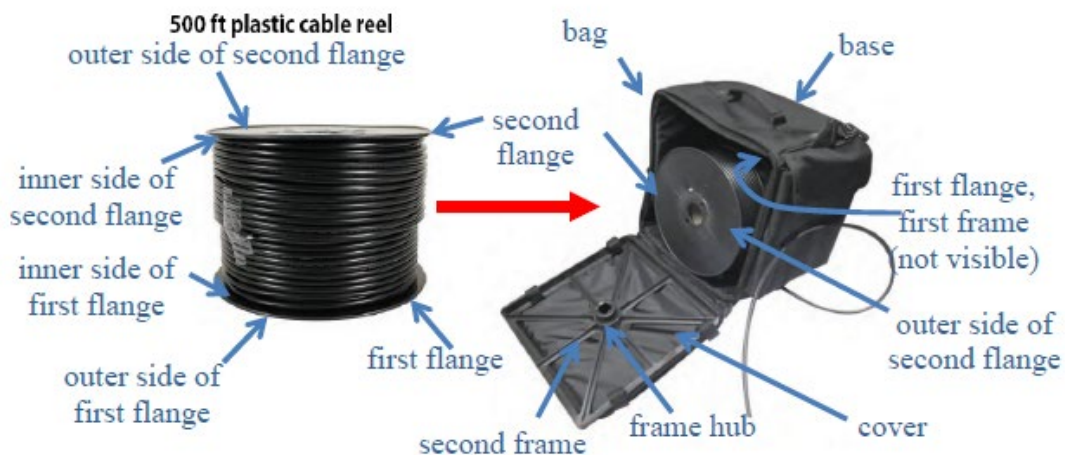
Ex. 1001, 11:42–48.

Petitioner asserts that Brochure combined with Blunt discloses these limitations. To start, Petitioner provides an annotated figure of Blunt’s Figure 3 on page 39 of the Petition. The annotated figure is reproduced below.



Pet. 39. Petitioner’s annotated version of Blunt’s Figure 3 marks Blunt’s cable reel with first and second flanges, and the inner and outer side of each flange. *Id.* More specifically, Petitioner refers to these annotations as showing that Blunt discloses cable reel 34 containing first flange 42 and second flange 40 where both flanges are depicted as having an inner and outer side. *Id.*

Next, Petitioner provides an annotated version of a figure in Brochure, reproduced below.



Pet. 40. Petitioner’s annotated figure identifies a cable reel on the left, with first and second flanges, each containing inner and outer sides marked in blue. *Id.* Additionally, Petitioner includes a red arrow pointing from the picture on the left to the picture on the right to indicate that the cable reel is inserted into the Perfect Tote™. *Id.* The picture on the right is marked as a bag that includes a frame hub, second frame, an outer side of second flange, and a first flange and first frame that are not visible. *Id.* Petitioner asserts “[t]he side of the ‘first flange’ facing the bag base when inserting the cable

[REDACTED]

reel into the bag is the ‘outer side’ of the ‘first flange’” and “[t]he side of the ‘second flange’ facing the bag cover when closed is the ‘outer side’ of the ‘second flange.’” *Id.*

In addition, Petitioner contends that a POSITA would understand that Brochure in combination with Blunt teaches the “first flange configured to engage the first frame” and the “second flange configured to engage the second frame.” Pet. 42–44 (citing Ex. 1002 ¶¶ 65–75; Ex. 1004 ¶¶ 96–97, Figs. 3, 11; Ex. 1006; Ex. 1001, 10:50–53). Specifically, Petitioner argues that a POSITA would understand that when a cable reel, e.g., Blunt’s cable reel, is inserted into the Perfect Tote™, the “first flange” is “configured to engage” the “first frame” in the base of the bag and the outer side of the “first flange” would face the “first frame” when the “first flange” is engaged with the “first frame”; and (2) when the cover is closed, the “second flange” is “configured to engage” the “second frame” in the bag cover and the outer side of the “second flange” would face the “second frame” when the “second flange” is engaged with the “second frame.” Pet. 40–41 (citing Ex. 1002 ¶ 69).

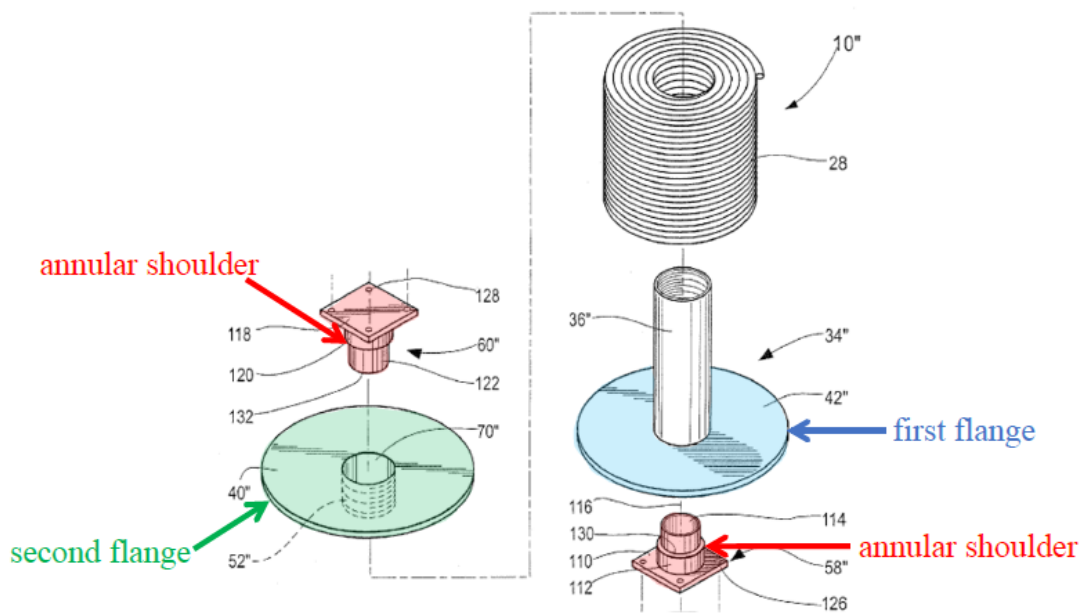
Patent Owner does not challenge Petitioner’s analysis and evidence showing these limitations are met by Brochure alone and Brochure in combination with Blunt. *See generally* PO Resp.

We find Petitioner’s arguments persuasive as to these limitations of claim 1 and supported on the complete record before us, and, therefore, we adopt them as our own findings.

Claim 1 further requires “a pre-wound, reel-less coil of cable that is separate from the separable cable reel,” and that “the first and second flanges

are configured to releasably couple with one another to support the pre-wound, reel-less coil of cable therebetween.” Ex. 1001, 11:57–61.

For these limitations, Petitioner contends that Blunt discloses a cable reel that is separable between the first and second flanges in order to load pre-wound coil, as shown in Petitioner’s annotated version of Blunt’s Figure 11 reproduced below.



Pet. 43–44; *see* Ex. 1004, Fig. 11. Petitioner’s annotated version of Blunt’s Figure 11 marks Blunt’s cable reel with first and second flanges, and two annular shoulders. Petitioner argues that first flange 42" is separated from second flange 40" by core 36" that is used to support pre-wound cable reel 28. Pet. 47–48. According to Petitioner, second flange 40" can be released from core 36" and first flange 42" in order to fit a pre-coiled supply of cable over the core 36". *Id.*

Petitioner adds that a POSITA

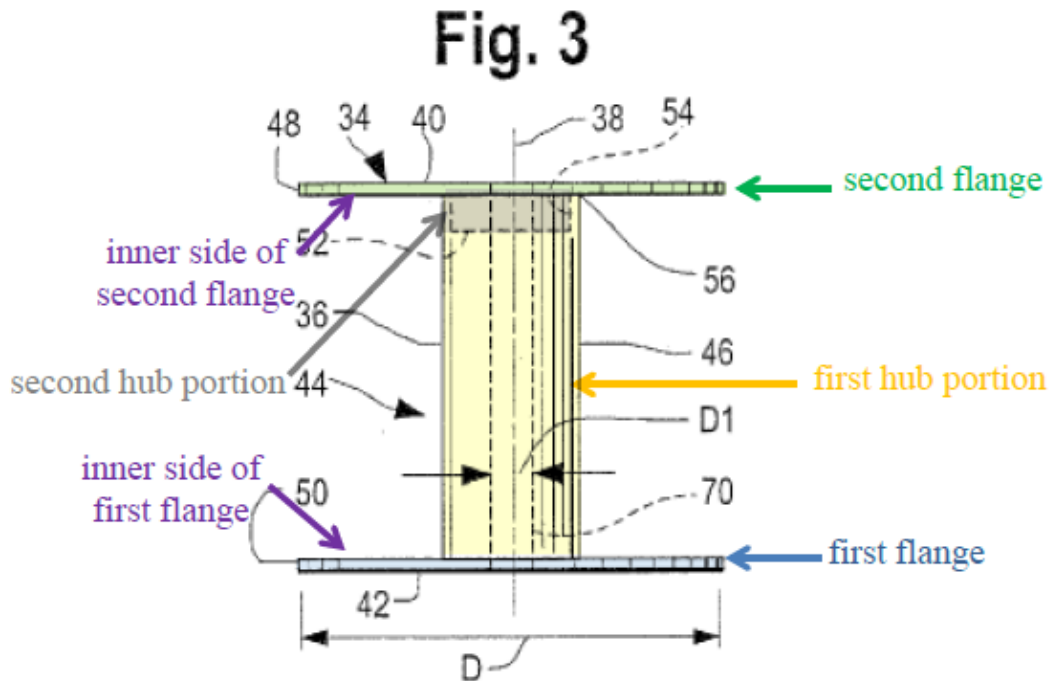


would have understood that Blunt's reel 34" would be assembled by directing a supply of cable 28 through core 36" of flange 42" ("first flange") and then inserting stub component 52" of flange 40" ("second flange") within receptacle 54 of core 36", and that Blunt's core 36" and stub component 52" would releasably couple with one another via a friction fit or cooperating threads to form a hub member to support a pre-coiled supply of cable 28 ("pre-wound, reel-less coil of cable") directed through core 36" between flange 42" and flange 40"[.]

Pet. 51 (citing Ex. 1002 ¶ 86). Petitioner further contends that a POSITA "would have further understood that in Brochure combined with Blunt, the coil of cable would be a pre-wound, reel-less coil of cable that can replenish the cable reel as taught by Blunt." *Id.* at 48 (citing Ex. 1002 ¶¶ 81–82).

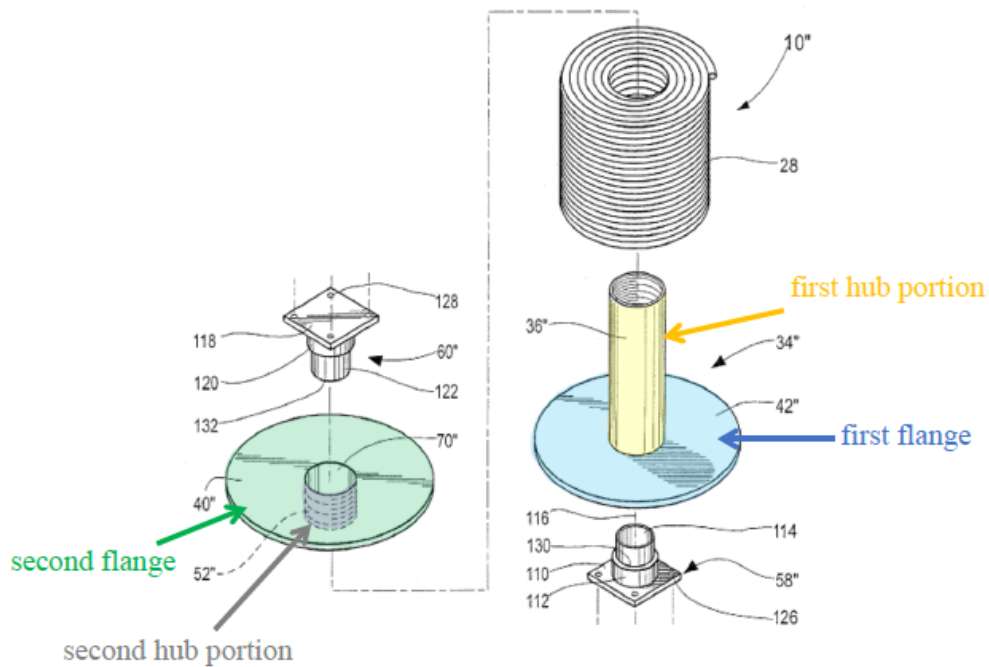
Patent Owner also does not challenge Petitioner's analysis and evidence showing these limitations are met by Brochure alone and Brochure in combination with Blunt. *See generally* PO Resp. Patent Owner does, however, state that "Brochure does not disclose a *reusable reel*, and the coil of cable disclosed *does not include any prepackaging*." *Id.* at 3 (emphases added).

Nonetheless, we find Petitioner's arguments persuasive as to these limitations of claim 1 and supported on the complete record before us, and, therefore, we adopt them as our own findings. For example, we observe that Blunt teaches reel 34", flange 42", core 36", and separate flange 40". Ex. 1004 ¶ 96, Fig. 11. Further, Dr. Eldering's testimony supports Petitioner's position that a POSITA would have been motivated to implement a two-component reel structure, such as Blunt's cable reel 34", within Brochure's cable reel apparatus. *See* Ex. 1002 ¶ 57. Dr. Eldering testifies a POSITA would understand the environmentally friendly advantages of



Pet. 53; *see* Ex. 1004, Fig. 3. Petitioner’s annotated version of Blunt’s Figure 3 marks Blunt’s cable reel with first and second flanges, a first hub portion, a second hub portion, and the inner sides of each flange. Petitioner asserts Blunt’s “flange 42” constitutes the claimed ‘first flange,’ core 36” constitutes the claimed ‘a first hub portion,’ flange 40” constitutes the claimed ‘second flange,’ and stub component 52” constitutes the claimed ‘a second hub portion.’” Pet. 54 (citing Ex. 1002 ¶ 93). Petitioner argues that both hub portions are connected to the inner side of their respective flanges. *Id.*

On page 56 of the Petition, Petitioner relies on another annotated version of Blunt’s Figure 11 to show Blunt’s purported first and second hub portions are releasably coupled to one another.



Pet. 56. There, the annotated figure includes color and text indicating a second hub portion (gray) at flange 40" (green) and a first hub portion at core 36" (yellow) extending from flange 42" (blue). Petitioner contends that stub component 52" (or second hub portion) can be removed from core 36" (or first hub portion) in order to slide pre-wound coil 28 onto the cable reel apparatus. *Id.*

Petitioner adds that as discussed in the analysis of claim 1:

a POSITA would have understood that Blunt's core 36" ('first hub portion') and stub component 52" ('second hub portion') would releasably couple with one another via a friction fit or cooperating threads to form a hub member to support the pre-coiled supply of cable 28 ('pre-wound, reel-less coil of cable') directed through core 36" between flange 42" and flange 40"

Pet. 57 (citing Ex. 1002 ¶¶ 103, 83–86; Ex. 1004 ¶ 73).

[REDACTED]

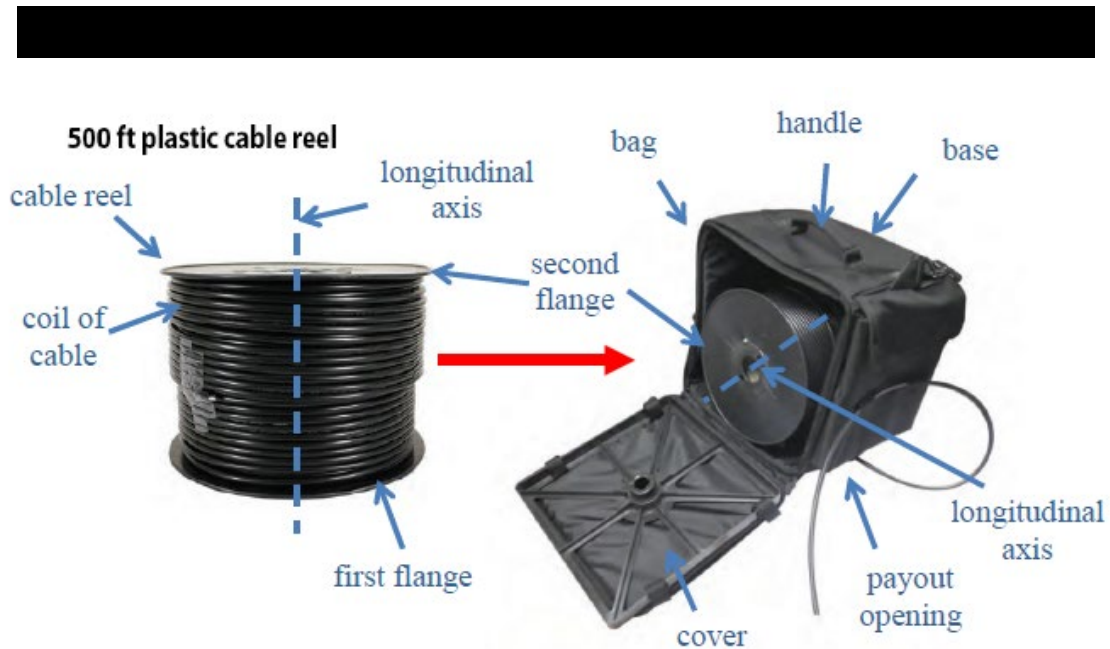
As with claim 1, Patent Owner does not challenge Petitioner’s analysis and evidence showing that the subject matter of claim 12 is met by the combination of Brochure and Blunt. *See generally* PO Resp.

We find Petitioner’s arguments persuasive as to claim 12 and supported on the complete record before us, and, therefore, we adopt them as our own findings. Accordingly, for the reasons explained by Petitioner, we find the combination of Brochure and Blunt teaches the subject matter of claim 12.

5. *Independent Claim 19*

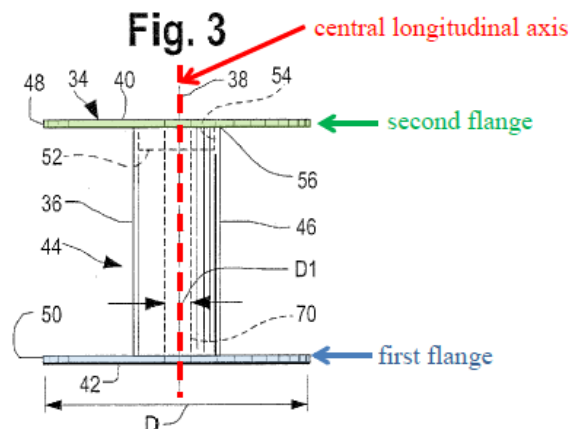
Independent claim 19 is directed to a “system for using a cable reel apparatus.” *See* Ex. 1001, 13:13–14:18. Claim 19 recites limitations similar to those recited in independent claims 1 and 12 but further requires, among other things, “a longitudinal axis of the separable cable reel is horizontal” and “the base of the bag includes a payout opening sized for dispensing cable of the pre-wound, reel-less coil of cable therebetween once the bag and the separable cable reel are positioned in the horizontal orientation.” *Id.*


Petitioner relies largely on the analysis discussed above for claims 1 and 12, but further contends that the central longitudinal axis of Brochure’s cable reel is oriented horizontally when the cable reel is horizontal inside the bag. Pet. 63. Petitioner’s annotated version of one of Brochure’s figures is provided below.



Pet. 63; Ex. 1006. Petitioner marked one of the figures from Brochure to identify a cable reel having a longitudinal axis and a bag containing a cable reel with the longitudinal axis in a horizontal configuration. Pet. 63. Referring to this annotated figure, Petitioner asserts that Brochure discloses a payout opening at the base of the bag from which the cable can be dispensed when in a horizontal configuration. *Id.*

Additionally, Petitioner provides the following annotated version of Blunt's Figure 3:





Pet. 64. Blunt’s Figure 3 “is a side elevation view of a reel around which the cable within the storage space is wrapped” (Ex. 1004 ¶ 59), which Petitioner annotates to identify a “central longitudinal axis” with a dashed red line extending vertically through Blunt’s reel. *Id.* (citing Ex. 1002 ¶ 71).

Petitioner adds that

in Brochure combined with Blunt, a POSITA would have understood that the bag would be positioned with this reel received therein in a horizontal orientation such that the central longitudinal axis 38 of this reel would be horizontal and that cable would be dispensed from the payout opening in the base of the bag.

Id. at 65 (citing Ex. 1002 ¶ 119).

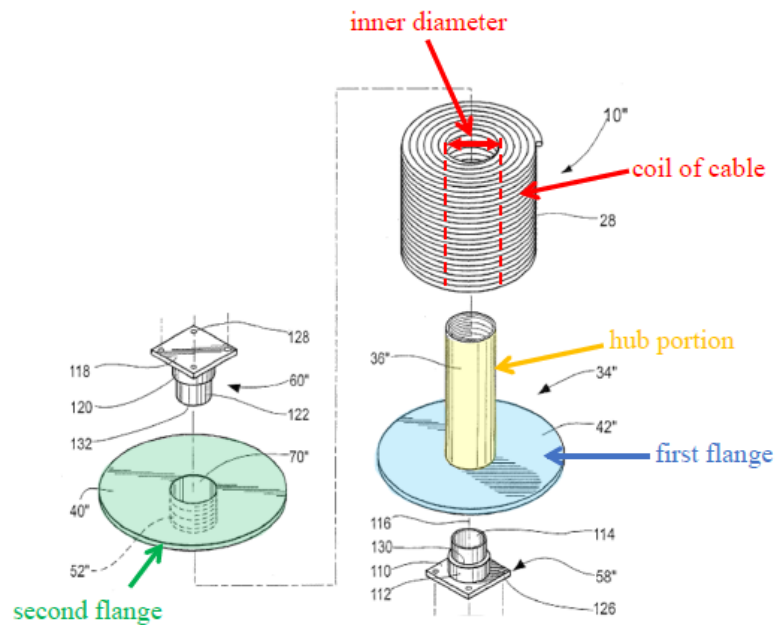
As with claim 1, Patent Owner does not challenge Petitioner’s analysis and evidence showing that the subject matter of claim 12 is met by the combination of Brochure and Blunt. *See generally* PO Resp.

We find Petitioner’s arguments persuasive as to claim 19 and supported on the complete record before us, and, therefore, we adopt them as our own findings. Accordingly, for the reasons explained by Petitioner, we find the combination of Brochure and Blunt teaches the subject matter of claim 19.

6. *Dependent Claim 7*

Claim 7 depends from independent claim 1 and further recites “wherein at least one of the first and second flanges includes a hub portion that is receivable in an inner diameter of the prepackaged, pre-wound, reel-less coil of cable.” Ex. 1001, 12:13–16.

Petitioner provides an annotated version of Blunt's Figure 11 on page 75 of the Petition. This annotated figure is reproduced below:



Pet. 75. Petitioner annotated Figure 11 to show a second flange (green), a coil of cable (red arrow), an inner diameter of the coil of cable (red), a hub portion (yellow), and a first flange (blue). Pet. 75. Petitioner asserts that “a POSITA would have understood that the pre-coiled supply of cable 28 has an inner diameter, and that when core 36” (‘hub portion’) is directed through the pre-coiled supply of cable 28, core 36” supports the coil of cable and is receivable in the inner diameter when supporting the coil of cable.” *Id.* at 76 (citing Ex. 1002 ¶¶ 143, 99–103).

Claim 7 further adds a “prepackaged” limitation to the “pre-wound, reel-less coil of cable” of claim 1. For this limitation, Petitioner argues Blunt teaches that




frangible sheet 98 may be wrapped around the cable 28 in a continuous fashion to avoid unravelling.... Accordingly, the wrapped supply 26 of cable 28 can be stored without the fear of unravelling and operatively placed within the storage space 16 without removing the frangible sheet 98.

Pet. 76 (emphasis omitted, omission in original) (citing Ex. 1004 ¶¶ 10, 47, 87). Petitioner asserts a POSITA “would have further understood that *Blunt*’s pre-coiled supply of cable 28 (‘pre-wound, reel-less coil of cable’) is prepackaged by being wrapped around with a frangible sheet, and that, in Brochure combined with *Blunt*, the coil of cable is prepackaged, pre-wound, and reel-less.” *Id.* at 76–77 (citing Ex. 1002 ¶¶ 145–147).

Patent Owner first contends Brochure does not disclose any prepackaging.¹⁴ PO Resp. 6. Patent Owner then turns to *Blunt*. According to Patent Owner, *Blunt* “discloses problems in the art regarding cable coils, specifically . . . mention[ing] that the problem of ‘the cable turns may bind and ultimately entangle’ is ‘particularly prevalent in the absence of a reel. Coiled wire tends to have set twists and turns that inhibit smooth paying off of cable from the supply.’” *Id.* at 5 (quoting Ex. 1004 ¶¶ 15–16). Patent Owner asserts *Blunt* solves this problem by “claim[ing] a system for storing a wrapped supply of cable for controlled payout.” *Id.* (citing Ex. 1004, claim 1). Patent Owner contends *Blunt*’s system “is described as a container (such as a paint bucket), a support assembly for a supply of wrapped cable

¹⁴ Patent Owner’s argument is inapposite because Petitioner does not rely on Brochure as teaching prepackaging; Petitioner relies on *Blunt*. Pet. 75–76.


can be controllably paid out through an opening in the side of the container.”
Id. (citing Ex. 1004, claim 1).

Patent Owner continues to describe Blunt as “disclos[ing] a wooden reel that ‘can be re-used; however, if used in conjunction with boxes, the above problems are contended with, including that of discarding the boxes, and the reel if the same is not practically re-usable. Typically, such a reel will have non-biodegradable components.’” PO Resp. 5 (quoting Ex. 1004 ¶ 22). Patent Owner adds that Blunt “discloses a frangible sheet that can be applied to the cable on a reel to prevent unraveling” and includes quotations from paragraphs 47, 64, and 87 of Blunt. *Id.* at 5–6.

Addressing the combination, Patent Owner asserts “[c]laim 7 of the ’342 patent require[s] cable coil to be reel-less and prepackaged.” PO Resp. 6. Patent Owner contends Blunt “fail[s] to describe a prepackaged coil of cable.” *Id.* Patent Owner asserts Blunt’s frangible sheet “is applied *after* the cable is on the reel.” *Id.* (citing Ex. 1004 ¶ 47). Patent Owner’s argument is as follows: “the frangible sheet is designed to ‘progressively tear/rupture as the cable 28 is pulled by the user’” (*id.* (citing Ex. 1004 ¶ 87)), “the ‘wrapped supply of cable 28 can be stored without fear of unravelling and operatively placed within the storage space 16 without removing the frangible sheet 98’” (*id.* (citing Ex. 1004 ¶ 87)), “[t]he storage space is inside the container of Blunt” (*id.* (citing Ex. 1004 ¶ 70)), Blunt “describes a frangible sheet applied around a wrapped cable in the storage space of the system” (*id.* (citing Ex. 1004 ¶ 47)), and “[i]n other words, the frangible sheet is applied *after* the cable is already on the reel [and] [a]s such, this does not disclose a *prepackaged* coil of cable” (*id.* at 7).

Addressing Blunt’s paragraph 10, Patent Owner asserts it “also does not mention any prepackaging. Instead, [paragraph 10] describes that a coil of cable can be ‘wrapped directly against a core on a reel’ or a ‘pre-coiled wire supply that is slid onto a core.’” *Id.* at 7 (citing Ex. 1004 ¶ 10; Ex. 2001, 85:15–20).

In its Reply, Petitioner first contends Patent Owner’s “theory relies solely on unsupported attorney argument, which cannot overcome the Petition’s showing, supported by expert testimony, that the prior art renders this limitation obvious.” Pet. Reply 1 (citing *Gemtron Corp. v. Saint-Gobain Corp.*, 572 F.3d 1371, 1380 (Fed. Cir. 2009); *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017)).

Next, Petitioner asserts Patent Owner’s “theory is wrong.” Pet. Reply 2. Petitioner contends Patent Owner “did not dispute that Blunt’s pre-coiled supply of cable 28 discloses a ‘pre-wound, reel-less coil of cable.’” *Id.* (citing PO Resp. 6–7; Ex. 1004 ¶ 73). Petitioner characterizes Patent Owner’s argument as “theoriz[ing] that Blunt ‘does not disclose a **prepackaged** coil of cable’ because it purported that Blunt’s ‘frangible sheet is applied **after** the cable is already on the reel.’” *Id.* (quoting PO Resp. 7). Petitioner asserts Patent Owner’s “unsupported theory erroneously assumes a frangible sheet only prevents unravelling that occurs after the cable is placed in the storage space 16 inside Blunt’s container 12,” which “ignores Blunt’s actual teachings, and Dr. Eldering’s testimony regarding Blunt’s actual teachings.” *Id.* (citing PO Resp. 6–7).

Petitioner points to paragraph 10 of Blunt, contending Blunt’s “explan[ation] [of] the unravelling problem of a pre-coiled supply of cable

[REDACTED]


can occur before the cable is placed inside Blunt’s container.” Pet. Reply 2.

Petitioner quotes the following from Blunt:

Wrapped coaxial cable generally will have sufficient memory that it tends to unwind from a wrapped state, whether **pre-coiled or wrapped around a core**. To address this problem, typically two different approaches are taken, which are described herein **for a supply of cable wrapped directly against a core on a reel, but apply as well to a pre-coiled wire supply that is slide onto a core**.

Id. (quoting Ex. 1004 ¶ 10). Petitioner asserts “Blunt discloses that one of the solutions for addressing the unravelling problem is to wrap a frangible sheet around the cable 28 in a continuous fashion.” *Id.* at 3 (citing Ex. 1004 ¶ 87; Ex. 2001, 85:11–20). And “[n]owhere does Blunt disclose wrapping the frangible sheet around the cable 28 **after** the core 36 is directed through the cable 28 or after the cable 28 is slid onto the core.” *Id.* (citing Ex. 1004 ¶¶ 73, 87). Petitioner asserts “if Blunt meant to apply the frangible sheet after the cable 28 is slid onto a core according to [Patent Owner’s] unsupported theory, Blunt would have no need to emphasize that its solution for preventing unravelling applies to ‘a supply of cable wrapped directly against a core on a reel, but **appl[ies] as well to** a pre-coiled wire supply that is slid onto a core.’” *Id.* (quoting Ex. 1004 ¶ 10) (alteration in original).

Additionally, Petitioner contends Patent Owner “ignored Dr. Eldering’s un rebutted testimony based on the actual teachings of the prior art regarding how it was well known in the prior art to prepackage ‘reel-less’ or ‘unspooled’ cable coils to prevent environmental corrosion, prevent damage during transportation or storage, and/or to control or prevent unravelling.” Pet. Reply 3 (citing Ex. 1002 ¶ 38 (citing Blunt, Fontana, and


Chadwick¹⁵); Ex. 2001, 61:5–12, 82:12–21, 91:8–16). Petitioner also asserts “Dr. Eldering explained how ‘Blunt discloses prepackaging a pre-coiled cable 28 by wrapping around the cable 28 with a frangible sheet 98 to **prevent unravelling during storage or in use.**’” *Id.* at 3–4 (quoting Ex. 1002 ¶ 38 (citing Ex. 1004 ¶¶ 10–11, 86–87)).

Relying on Dr. Eldering’s testimony, Petitioner asserts Patent Owner’s “theory also contradicts common sense regarding how Blunt’s pre-coiled cable 28 with the frangible sheet naturally would have also solved such an unravelling problem during transportation or storage.” Pet. Reply 4–5 (citing Ex. 1002 ¶ 38; Ex. 2001, 86:8–14, 88:18–89:2, 89:7–14; Ex. 2015, part two at 15:20; Ex. 2016, part two at 6¹⁶). Petitioner thus contends Dr. Eldering’s testimony is un rebutted and confirms “Blunt’s disclosure of a prepackaged reel-less cable, and Brochure in view of Blunt renders obvious claim 7. [And Patent Owner] failed to provide any evidence or reasonable explanation to the contrary.” *Id.* at 5.

In its Sur-reply, Patent Owner contends Petitioner’s citations to Blunt do not show a solution directed to unravelling of cable before placing into a container. PO Sur-reply 3. Instead, Patent Owner asserts Blunt “teaches there are two known methods for solving the problem prior to the invention

¹⁵ U.S. Patent No. 5,775,515, issued July 7, 1998 (Ex. 1012, “Chadwick”).

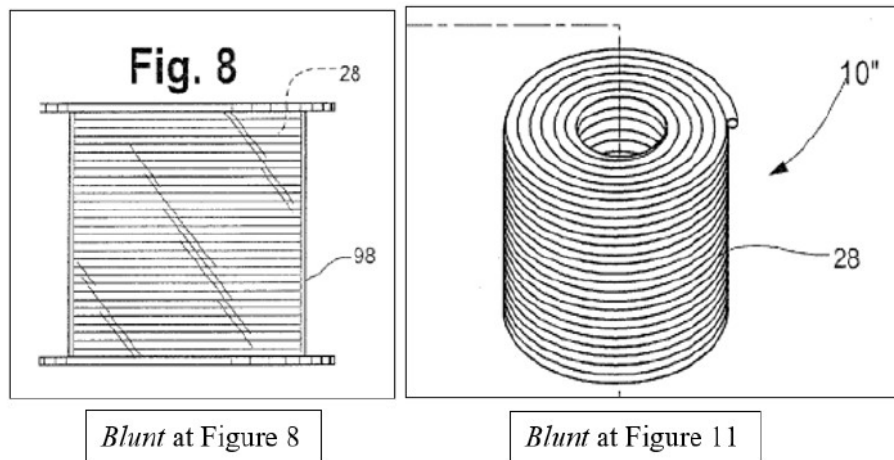
¹⁶ Exhibit 2015 is a video of a presentation titled “Zero Waste Challenges: The Lifecycle of Coax Cable” from the SCTE-ISBE Cable-Tec Expo, held October 12–15, 2020. PO Resp. vi. Exhibit 2016 is a transcript of the video from Exhibit 2015. *Id.* Although Petitioner cites to Exhibits 2015 and 2016, we do not rely on either of these exhibits in reaching our decision on this issue.

[REDACTED]

of Blunt, neither of which are prepacked reel-less coils of cable.” *Id.* (citing Ex. 1004 ¶ 10). “First, . . . ‘plac[ing] the reel with the wrapped cable supply thereon in a surrounding container. Typically the container will be a square box’” *Id.* (third alteration in original) (quoting Ex. 1004 ¶ 12).

“Second, . . . ‘[i]t is also known to use reels, as made from wood, without a surrounding container.’” *Id.* (second alteration in original) (quoting Ex. 1004 ¶ 23). Patent Owner identifies Blunt’s solution as “‘a system for storing a wrapped supply of cable for controlled payout . . .’ in which the ‘storage space’ is the container from which the cable is paid out.” *Id.* at 4 (omission in original) (quoting Ex. 1004 ¶ 30). Patent Owner asserts “[t]his does not disclose either prior knowledge, or a proposed solution, of prepackaging the pre-wrapped coil.” *Id.*

Patent Owner next takes issue with Petitioner’s argument that Blunt does not disclose applying the frangible sheet around cable 28 *after* the cable is slid onto the core. PO Sur-reply 4 (quoting Pet. Reply 3 (citing Ex. 1004 ¶¶ 73, 87)). Patent Owner asserts paragraph 87 “discloses that the frangible sheet is applied to cable that is *already* on a core.” *Id.* Specifically, Patent Owner argues “Blunt discloses that ‘as shown in FIG. 8, a frangible sheet 98 may be wrapped around the cable 28 in a continuous fashion to avoid unraveling.’” *Id.* (quoting Ex. 1004 ¶ 98) (citing PO Resp. 6–7). Patent Owner points to Figure 8 asserting it “displays cable 28 already on a reel with frangible sheet 98. Conversely, Figure 11 shows cable 28 without a reel. Thus, the inventors of Blunt delineated when cable 28 was on or off a reel.” *Id.* (comparing Blunt, Figs. 8, 11). Patent Owner provides the following illustration showing Figures 8 and 11 side-by-side:



Id. at 5. Patent Owner’s illustration shows Blunt’s Figure 8 (left) (i.e., “a view of a reel . . . with a supply of cable wrapped therearound and a frangible sheet disposed thereover to prevent unraveling of the cable” (Ex. 1004 ¶ 64)) and a portion of Blunt’s Figure 11 (right), showing wrapped cable 28. Patent Owner contends “Dr. Eldering never asserted that paragraph [87] of Blunt describes a frangible sheet around a *reel-less* cable coil, instead he relies upon substitution with Fontana.” PO Sur-reply 5 (citing Ex. 2001, 91:8–16).¹⁷

Patent Owner turns to Dr. Eldering’s testimony, contending he relies on Blunt’s paragraphs 10 and 11 as presenting a discussion of the unraveling problem, but that paragraphs 86 and 87 present solutions to that problem, where Patent Owner contends paragraph 87 describes a frangible sheet wrapped around cable 28 *after* it is placed onto a core and paragraph 86 merely describes putting a piece of cable through one of the openings 96 of the reel. PO Sur-reply 5 (citing Pet. Reply 3; Ex. 2001, 85:11–20, 86:4–6).

¹⁷ Fontana is a reference that forms part of Petitioner’s challenge in Grounds 3 and 4.

[REDACTED]

Patent Owner argues “[n]either of these citations, nor Dr. Eldering’s reference to them, disclose a pre-packaged reel-less coil of cable.” *Id.* at 6.

Additionally, Patent Owner contests Petitioner’s argument that Dr. Eldering provided unrebutted testimony that it was well known in the prior art to prepackage reel-less or unspooled cable coils. PO Sur-reply 6 (referencing arguments in the Patent Owner Response directed to Blunt, Fontana, and Chadwick). Patent Owner further challenges Petitioner’s reliance on Dr. Eldering’s deposition testimony, contending the testimony “add[s] no new analysis or evidence to that presented in his declaration and the Petition.” *Id.* And Patent Owner rejects Petitioner’s reliance on Exhibits 2015 and 2016, asserting the video presented in those exhibits was made “years after the priority date of the ’342 Patent, and do[es] not comment on how a [person of ordinary skill in the art] would have read the disclosures of Blunt in 2015.” *Id.* at 7 (citing PO Resp. vi (noting October 2020 date of video)). Patent Owner thus contends Petitioner failed to establish that the combination of Brochure and Blunt teaches a prepackaged reel-less cable coil because Blunt does not teach this aspect of claim 7.

i. Analysis

As reflected above, a fundamental disagreement between the parties focuses on Blunt and its teachings regarding the frangible sheet. Specifically, Petitioner asserts that Blunt is *not* limited to teaching a frangible sheet applied only *after* a cable is wrapped around a reel; rather, Blunt also teaches or suggests applying a frangible sheet to a coil of cable which can then be slid onto a reel (in other words, a pre-packaged reel-less coil of cable). Patent Owner insists Blunt *only* teaches the use of a frangible

[REDACTED]

sheet *after* a cable is wrapped around a reel. Thus, understanding the full scope of Blunt is critical to resolving the parties' disagreement.

We begin with Blunt's paragraph 10 because it provides important context for understanding the terms used by Blunt. Specifically, Blunt uses the term "wrapped coaxial cable" to refer to cable that is either "pre-coiled" or "wrapped around a core." This is reflected by the following statement: "[w]rapped coaxial cable generally will have sufficient memory that it tends to unwind from a wrapped state, whether pre-coiled or wrapped around a core." Ex. 1004 ¶ 10; *see* Pet. Reply 2–3 (discussing Blunt's applicability to pre-coiled cable or cable wrapped around a core). In other words, Blunt's use of the term "wrapped coaxial cable" is not limited *solely* to coaxial cable wrapped around a core. Additionally, that same statement in Blunt also recognizes two types of wrapped cable states—pre-coiled or wrapped around a core. Blunt acknowledges that, in general, problems relating to controlling cable in a wrapped cable state apply to "cable wrapped directly against a core on a reel" as well as "a pre-coiled wire supply that is slid onto a core." Ex. 1004 ¶ 10. The main point for which we rely on this statement in Blunt is its acknowledgement that there are two options as to how wrapped cable ends up around a core—(1) cable can be wrapped directly against a core *or* (2) cable can be pre-coiled (without the core) and then slid onto a core. *See* Pet. Reply 2–3 (discussing Blunt's applicability to a pre-coiled wire supply that is slid onto a core).

Blunt's use of the term "wrapped cable" to refer to cable that is wrapped either with or without a core is further reflected in its Summary of Invention. In that section, Blunt sequentially describes different "form[s]"

[REDACTED]

of its invention. *See* Ex. 1004 ¶¶ 30–56. The sequence of Blunt’s descriptions of several different forms highlights Blunt’s use of the term “wrapped cable,” as follows:

In one form, the container is provided in combination with *a supply of wrapped cable* that is operatively placed within the storage space.

In one form, the peripheral wall has a top opening through which *the supply of wrapped cable* can be directed to be operatively placed within the storage space. The container has a bottom wall and further includes a lid that is removably attached to the peripheral wall to selectively block the top opening.

In one form, the support assembly has at least one guide component on the bottom wall.

In one form, the support assembly has at least another guide component on the lid. The guide components cooperatively guide the operatively placed *supply of wrapped cable* in movement around the first axis.

In one form, *the supply of wrapped cable includes a reel with a core* around which the cable is wrapped.

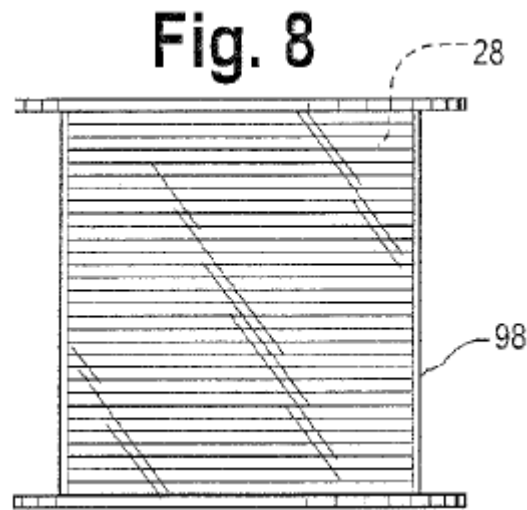
Id. ¶¶ 32–36 (emphasis added). As reflected in this sequence, Blunt uses the phrase “supply of wrapped cable” in paragraphs 32–35 without limiting the “supply of wrapped cable” to that which includes a reel with a core. Including “a reel with a core around which the cable is wrapped” is not referenced until paragraph 36. The point here, once again, is that Blunt’s use of the phrases “supply of wrapped cable” or “wrapped cable” is not limited to cable that includes a reel with a core. *See* Pet. Reply 2–3 (addressing Blunt’s use of “wrapped coaxial cable”).

[REDACTED]

Blunt’s claims reflect the same breadth of the phrase “supply of wrapped cable.” Specifically, claim 3 recites “[t]he system for storing a supply of cable according to claim 1 in combination with *a supply of wrapped cable* operatively placed/stored within the storage space.” Ex. 1004, claim 3 (emphasis added). Claim 3 thus adds, *inter alia*, the limitation of a supply of wrapped cable to the system for storing a wrapped supply of cable for controlled payout recited in claim 1.¹⁸ It is not until claim 7 (which depends, indirectly, from claim 3) that Blunt further limits the phrase “the supply of wrapped cable” to a structure that includes a reel with a core: Claim 7 recites “[t]he system for storing a supply of cable according to claim 6 *wherein the supply of wrapped cable comprises a reel with a core* around which the cable is wrapped.” *Id.* at claim 7 (emphasis added). Again, the point is that Blunt’s use of the phrase “supply of wrapped cable” is *not* limited to cable that is wrapped around a reel with a core.

Next, the parties’ arguments focus on Blunt’s Figure 8 and Blunt’s description thereof. And particularly whether Blunt’s teaching of including a frangible sheet is *limited* to including the sheet *only after* the supply of wrapped cable is wrapped around a reel with a core. Blunt’s Figure 8 is reproduced below.

¹⁸ Even though we do not rely on this observation in our analysis in this proceeding, we note that Blunt’s claim 1 does not affirmatively recite a supply of wrapped cable as a structural component of its system, even though claim 1 recites structural components of the claimed system in terms of their functional relationship to a supply of wrapped cable.



Ex. 1004, Fig. 8. Blunt’s description of Figure 8 states that it “is a view of a *reel* as in FIG. 3 with a supply of cable wrapped therearound and a frangible sheet disposed thereover to prevent unraveling of the cable.” *Id.* ¶ 64 (emphasis added). As reflected in Blunt’s description of Figure 8, it includes a reel.

Although Blunt’s depiction of Figure 8 and description thereof include a reel, Blunt does not affirmatively state *a sequence* for applying the frangible sheet to the cable. In other words, there is no statement in Blunt’s description of the frangible sheet (or otherwise in Blunt) that the cable is wrapped around a reel *and then* a frangible sheet is applied (Patent Owner’s interpretation) as opposed to the frangible sheet being applied to the coil of cable *and then* sliding the coil over a reel (included in Petitioner’s interpretation¹⁹). Both sequences of assembly would result in the exact same

¹⁹ Petitioner’s interpretation is that Blunt is not *limited* to the sequence asserted by Patent Owner and thus teaches or suggests either sequence to one of ordinary skill in the art. Pet. Reply 2–3.




image shown in Figure 8 and satisfy the description of Figure 8 in paragraph 87. And we determine that the description in Blunt’s paragraph 10 (discussed above) supports the notion advocated by Petitioner that one of ordinary skill in the art, reading Blunt, would understand that Blunt contemplates applying a frangible sheet to a supply of wrapped cable *and then* sliding the cable over a core. In particular, paragraph 10 explains that two different approaches are taken to address the problem of coil tending to unwind whether pre-coiled or wrapped around a core and that Blunt describes the approaches “for a supply of cable wrapped directly against a core on a reel, but apply as well to a pre-coiled wire supply that is slid onto a core.” Ex. 1004 ¶ 10. Assuming paragraph 10 applies to Blunt’s depiction of Figure 8, there is no doubt Blunt contemplates and expressly teaches applying a frangible sheet to a pre-coiled cable even though Figure 8 illustrates a frangible sheet on a cable wrapped around a core. Even assuming paragraph 10 does not expressly apply to Figure 8, Blunt’s statement in paragraph 10 suggests that Blunt’s teachings, even if illustrated in the Figures only as a supply of cable wrapped around a core, also apply to a pre-coiled wire supply that is slid onto a core.

If there were any remaining doubt that Blunt contemplates the sequence argued by Petitioner, a review of Blunt’s claims confirms this to be true.²⁰ As discussed above, the first recitation that the supply of wrapped cable is limited to one that includes a reel is in Blunt’s claim 7. Ex. 1004, claim 7 (“wherein the supply of wrapped cable comprises a reel with a core

²⁰ Patent Owner pointed to Blunt’s claim 1 (*see* PO Resp. 5), but failed to consider the relationship between the claims.

[REDACTED]

around which the cable is wrapped”). The first claim in which Blunt recites a frangible sheet is claim 18. But, *claim 18 depends from claim 3, not claim 7* or any claim that depends from claim 7. Claim 18 recites, “[t]he system for storing a supply of cable according to claim 3 wherein a frangible sheet layer is applied around the supply of wrapped cable to confine the cable and the sheet layer is progressively ruptured as the cable is controllably paid out from the storage space.” *Id.* at claim 18 (emphases added). The supply of wrapped cable recited in claim 3 is *not limited* to that which includes a reel. As noted above, a reel is not recited until claim 7. Thus, because claim 18 depends from claim 3 *and not claim 7*, when claim 18 adds the limitation of a frangible sheet, it does so to a supply of wrapped cable *that is not expressly limited to a reel*. No doubt, the supply of wrapped cable recited in claim 3 (and therefore claim 18) could have a reel as recited in claim 7, but there is no requirement but *a reel is not a required element of the supply of wrapped cable* recited in claim 3 and to which a frangible sheet is added in claim 18.

Accordingly, we find that one of ordinary skill in the art reading Blunt as a whole would have understood that Blunt *does not limit* the use of a frangible sheet to only the instance in which a supply of wrapped cable *already* includes a reel. Rather, in light of Blunt’s entire disclosure, we find that Blunt teaches the use of a frangible sheet applied around a supply of wrapped cable that does not already contain a reel; in other words, a reel-less coil of cable. Therefore, we disagree with Patent Owner’s argument that the combination does not teach or suggest a prepackaged reel-less cable coil.

[REDACTED]

For the reasons discussed above and as argued by Petitioner, we find Petitioner’s arguments persuasive as to claim 7 and supported on the complete record before us. Accordingly, we find the combination of Brochure and Blunt teaches the subject matter of claim 7.

7. *Dependent Claims 2–6, 8–11, 14–18, and 20–22*

Petitioner provides a detailed analysis, with supporting evidence, contending the combination of Brochure and Blunt would have rendered the subject matter of dependent claims 2–6, 8–11, 14–18, and 20–22 obvious to one of ordinary skill in the art before the effective filing date of the claimed invention. *See* Pet. 65–68 (claims 2, 17, 20), 68–69 (claims 3, 18, 21), 70 (claim 4), 70–73 (claims 5–6), 74–77 (claims 8–10, 22), 77–78 (claim 11), 78–80 (claims 14–15), 80–81 (claim 16).

As with the claims addressed in this Decision thus far, Patent Owner does not challenge Petitioner’s analysis and evidence showing that the subject matter of claims 2–6, 11, 14–18, and 20–22 are met by the combination of Brochure and Blunt. *See generally* PO Resp.

Moreover, we have addressed Patent Owner’s contentions regarding whether the combination of Brochure and Blunt teaches the subject matter of dependent claim 7 that requires, *inter alia*, “a prepackaged pre-wound, reel-less coil of cable.” Ex. 1001, 12:13–16. Claims 8–10 depend from claim 7. Our discussion for claim 7 above applies to claims 8–10.

We find Petitioner’s arguments persuasive as to claims 2–6, 8–11, 14–18, and 20–22 and supported on the complete record before us, and, therefore, we adopt them as our own findings. Accordingly, for the reasons

[REDACTED]

explained by Petitioner, we find the combination of Brochure and Blunt teaches the subject matter of claims 2–6, 8–11, 14–18, and 20–22.

2. *Motivation to Combine;
Reasonable Expectation of Success*

As discussed above, Petitioner provides a detailed analysis with supporting evidence contending one of ordinary skill in the art would have been motivated to combine the teachings of Brochure and Blunt with a reasonable expectation of success. Pet. 27–33. Patent Owner does not challenge Petitioner’s arguments pertaining to motivation and reasonable expectation of success for the Brochure-Blunt combination²¹ in the Patent Owner Response.²² See PO Resp. 2–7. Thus, we find Patent Owner has waived any argument that one of ordinary skill in the art would not have been motivated to combine the teachings of Brochure and Blunt (as proposed by Petitioner) with a reasonable expectation of success. See Paper 8 (Scheduling Order), 9–10 (“**Patent Owner is cautioned that any arguments for patentability not raised in the response may be deemed waived.**”). We agree with Petitioner, for the reasons stated by Petitioner (Pet. 27–33), that one of ordinary skill in the art would have been motivated to “modify Brochure’s cable reel with Blunt’s reel structure or substitute

²¹ Patent Owner challenges Petitioner’s arguments as to motivation to combine in Grounds 3 and 4, where Patent Owner contests the addition of Fontana to the combination of Brochure and Blunt. See PO Resp. 11–15 (address motivation to combine, inoperability, and teaching away in response to Petitioner’s challenge under Grounds 3 and 4).

²² Nor does Patent Owner challenge Petitioner’s arguments on this issue in the Sur-reply.

[REDACTED]

Brochure’s cable reel with Blunt’s reel 34" to . . . replenish the supply of cable in the cable reel installed in the Tote bag when it is exhausted in an environmentally friendly way.” *Id.* at 27 (citing Ex. 1002 ¶¶ 53–58; Ex. 1004 ¶ 107). We also agree with Petitioner, for the reasons stated by Petitioner (*id.* at 27–33), that one of ordinary skill in the art would have had a reasonable expectation of success in achieving the combination at least because the modification “would merely involve using a known technique to improve similar devices in the same way taught.” *Id.* at 28 (citing Ex. 1002 ¶ 55).

Accordingly, we find that Petitioner has established that one of ordinary skill in the art would have been motivated to combine the teachings of Brochure and Blunt and would have had a reasonable expectation of success in so doing.

3. *Objective Indicia of Nonobviousness*

Patent Owner contends “objective evidence demonstrates the patentability of all of the Challenged Claims.” PO Resp. 15 (heading format altered). In its introduction paragraph on this topic, Patent Owner asserts it provides evidence of the following objective indicia: (1) commercial success; (2) industry adoption over the prior art; (3) copying; (4) licensing; and (5) industry praise. *Id.* However, Patent Owner fails to argue or provide evidence in support of “licensing” and “industry praise,” and instead argues and provides some evidence in support of a different objective indicia—long-felt, unmet need. The objective indicia *actually argued* by Patent Owner are divided—by Patent Owner—into the following three categories: (1) commercial success (*id.* at 53–54); (2) long-felt need and industry

[REDACTED]


adoption (*id.* at 54–58); and (3) copying (*id.* at 58–62). It is these three objective indicia that Patent Owner *actually argues* and provides some evidence in support thereof and it is these three categories that are addressed below. Additionally, as discussed further below, Patent Owner contends that its Amphenol Sustainable Solution Tech Service Bag (“Tech Service Bag”) “practices the challenged claims of the ’342 patent.” *Id.* at 16.

Petitioner challenges Patent Owner’s evidence. Pet. Reply 10–30.

I. Nexus

For objective indicia of nonobviousness to be accorded substantial weight, the proponent must establish a nexus between the evidence and the merits of the claimed invention. *ClassCo, Inc., v. Apple, Inc.*, 838 F.3d 1214, 1220 (Fed. Cir. 2016). “[T]here is no nexus unless the evidence presented is ‘reasonably commensurate with the scope of the claims.’” *Id.* (quoting *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013)).

A patentee is entitled to a presumption of nexus “when the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘embodies the claimed features, and is coextensive with them.’” *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (quoting *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000))); *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 33 at 32 (PTAB Jan. 24, 2020) (precedential, designated Apr. 14, 2020). On the other hand, the patentee is not entitled to a presumption of nexus if the patented invention is only a component of a


commercially successful machine or process. *Fox Factory*, 944 F.3d at 1373 (reaffirming the importance of the “coextensiveness” requirement).

“[T]he purpose of the coextensiveness requirement is to ensure that nexus is only presumed when the product tied to the evidence of secondary considerations ‘is the invention disclosed and claimed.’” *Fox Factory*, 944 F.3d at 1374 (quoting *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988)). “[T]he degree of correspondence between a product and a patent claim falls along a spectrum. At one end of the spectrum lies perfect or near perfect correspondence. At the other end lies no or very little correspondence.” *Id.* “A patent claim is not coextensive with a product that includes a ‘critical’ unclaimed feature that is claimed by a different patent and that materially impacts the product’s functionality.” *Id.* at 1375.

Nonetheless, “[a] finding that a presumption of nexus is inappropriate does not end the inquiry into secondary considerations.” *Fox Factory*, 944 F.3d at 1373. “To the contrary, the patent owner is still afforded an opportunity to prove nexus by showing that the evidence of secondary considerations is the ‘direct result of the unique characteristics of the claimed invention.’” *Id.* at 1373–74 (quoting *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)). “Where the offered secondary consideration actually results from something other than what is both claimed and *novel* in the claim, there is no nexus to the merits of the claimed invention,” meaning that “there must be a nexus to some aspect of the claim not already in the prior art.” *In re Kao*, 639 F.3d 1057, 1068–69 (Fed. Cir. 2011) (emphasis in original). On the other hand, there is no requirement that “objective

[REDACTED]

evidence must be tied exclusively to claim elements that are not disclosed in a particular prior art reference in order for that evidence to carry substantial weight.” *WBIP*, 829 F.3d at 1331. A patent owner may show, for example, “that it is the claimed combination as a whole that serves as a nexus for the objective evidence; proof of nexus is not limited to only when objective evidence is tied to the supposedly ‘new’ feature(s).” *Id.* at 1330.

Ultimately, the fact finder must weigh the secondary considerations evidence presented in the context of whether the claimed invention as a whole would have been obvious to a skilled artisan. *WBIP*, 829 F.3d at 1331–32. Once a patentee has presented a prima facie case of nexus, the burden of coming forward with evidence in rebuttal shifts to the challenger “to adduce evidence to show that the commercial success was due to extraneous factors other than the patented invention.” *Demaco*, 851 F.2d at 1393.

Patent Owner “bears the burden of showing that a nexus exists.” *WMS Gaming Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999). “To determine whether the patentee has met that burden, we consider the correspondence between the objective evidence and the claim scope.” *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019) (quoting *Demaco*, 851 F.2d at 1392).

a. Presumption of Nexus

i. The Parties’ Arguments

Patent Owner contends “[t]he presumption of nexus applies because the [Tech Service Bag] practices [the] challenged claims.” PO Resp. 15 (heading format altered). Patent Owner asserts “[h]ere, a nexus is presumed

[REDACTED]

because the [Tech Service Bag] practices the challenged claims of the '342 patent, and the claimed invention is not a subcomponent of (as opposed to the entirety of) the products sold.” *Id.* at 16 (citing *Demaco*, 851 F.2d at 1392), for the proposition that the “presumption does not apply if the claimed invention is merely a subcomponent”). Patent Owner provides thirty-six (36) pages (PO Resp. 16–52) of argument, supported by the testimony of Mr. Thakare, mapping each of the Challenged Claims to the Tech Service Bag.

Petitioner asserts Patent Owner “relied on a factually and legally erroneous theory that it should be entitled to a presumption of nexus based solely on its conclusory assertion that [Patent Owner’s Tech Service Bag] ‘practices the challenged claims of the ’342 patent,’ and ‘the claimed invention is not a subcomponent of (as opposed to the entirety of) the products sold.’” Pet. Reply 11 (quoting PO Resp. 16). Petitioner contends that, “to be entitled to such a nexus presumption, the patentee must ‘show[] that the asserted objective evidence is tied to a specific product and that product “embodies the claimed features, and is **coextensive with them.**”’” *Id.* (alteration in original) (citing *Lectrosonics*, IPR2018-01129, Paper 33 at 32 (quoting *Fox Factory*, 944 F.3d at 1373)). Here, Petitioner asserts, Patent Owner “never attempted to establish that the product *is* in fact **coextensive** with the Challenged Claims. It thus cannot be entitled to such nexus presumption.” *Id.* at 12.

Petitioner raises two primary arguments in response to Patent Owner’s alleged presumption of nexus—(1) that Patent Owner’s product includes significant unclaimed features and (2) that Patent Owner’s attempt to point

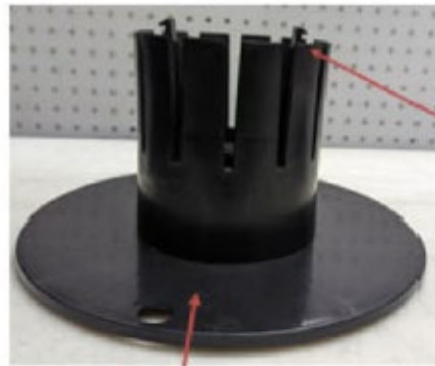
[REDACTED]

to the same product for the same alleged objective indicia across four patents²³ rebuts its contention that the product is coextensive with the Challenged Claims of the '342 patent. Pet. Reply 12–19.

First, Petitioner contends Patent Owner's Tech Service Bag "is not coextensive with the Challenged Claims because it includes significant unclaimed features covered by [Patent Owner's] other patents . . . [that] significantly impact[] the product's functionality." Pet. Reply 12 (citing *Fox Factory*, 944 F.3d at 1375). Petitioner identifies three features that it contends are significant and unclaimed: (1) a snap engagement feature; (2) a flexible hub feature; and (3) a braking mechanism feature. *Id.* at 12–18.

The first feature identified by Petitioner is a "snap engagement feature" of the reel in Patent Owner's Tech Service Bag where the first hub has snaps that releasably lock with the second hub. Pet. Reply 12 (citing PO Resp. 30–31; Ex. 1001, 9:57–60:33, Figs. 4B, 5B). Petitioner asserts Patent Owner describes this feature as "the first hub [being]... equipped with snaps that releasably lock with the second hub." *Id.* (quoting PO Resp. 21). Petitioner includes the following annotated figures identifying snap arm(s) and slot(s):

²³ Petitioner refers to the four patents at issue in the four related IPRs—IPR2022-00946 (this proceeding), IPR2022-00947, IPR2022-01087, and IPR2022-01088.



First Flange
Tech Service Bag

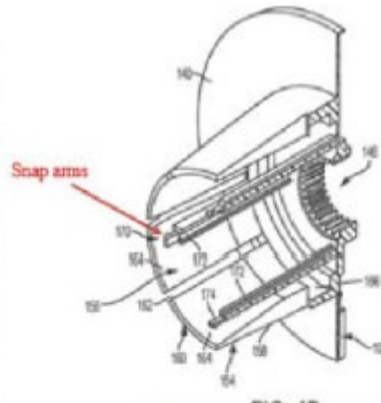


FIG. 4B
'342 Patent Fig. 4B

POR 31 (citing Ex. 2018; Ex. 1001, FIG. 4B).



Second Flange
Tech Service Bag

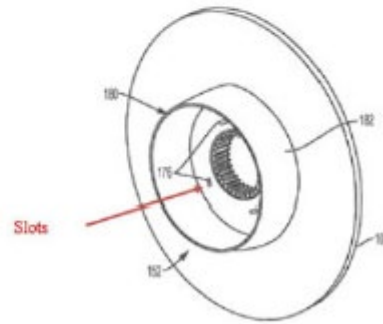



FIG. 5B
'342 Patent

Id. at 13. The top portion shows a picture from Exhibit 2018²⁴ (top left) and Figure 4B from the '342 patent (top right) in which Petitioner identifies by annotation “snap arms” in each. *Id.* The bottom portion shows a picture

²⁴ Patent Owner identifies Exhibit 2018 as a photograph of a component of Patent Owner’s Tech Service Bag. PO Resp. vi.

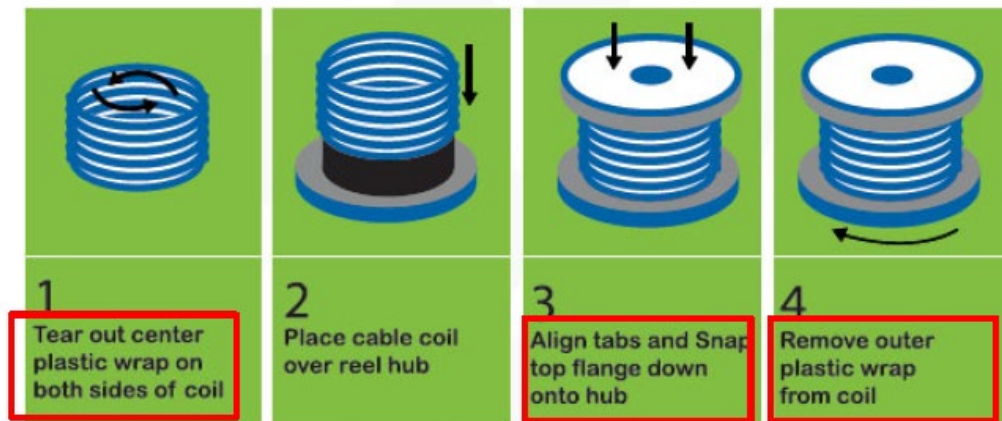

from Exhibit 2017²⁵ (bottom left) and Figure 5B of the '342 patent (bottom right) in which Petitioner identifies “slots” in each. *Id.*

Petitioner contends Patent Owner’s patents and marketing materials indicate that the snap engagement feature impacts the functionality of the product, with the '342 patent stating “a snapping engagement is **preferred** to secure the hub portions 150 and 152 together.” Pet. Reply 13–14 (quoting Ex. 1001, 9:60–62). Petitioner asserts Patent Owner’s marketing materials “characterize this feature as an ‘Innovative Design[]’ and ‘for Easy Cable Coil Replacement,’ and instruct the user in the ‘Replacing the Cable Reel[]’ step 3 to ‘Align tabs and **Snap top flange down onto hub.**” *Id.* at 14 (alterations in original) (quoting Ex. 2005, 2). Additionally, Petitioner contends the snap engagement feature is claimed by at least two other patents in the same family as the '342 patent not at issue in this proceeding—U.S. Patent Nos. 9,695,008 (Ex. 1044, “the '008 patent”) and 9,862,566 (Ex. 1045, “the '566 patent”). *Id.* (citing Ex. 1044, 6:13–22 (claims 6–8); Ex. 1045, 6:13–14 (claim 2)). Petitioner provides the following pictures and related text from Patent Owner’s marketing material (Ex. 2005):

²⁵ Patent Owner identifies Exhibit 2017 as a photograph of a component of Patent Owner’s Tech Service Bag. PO Resp. vi.



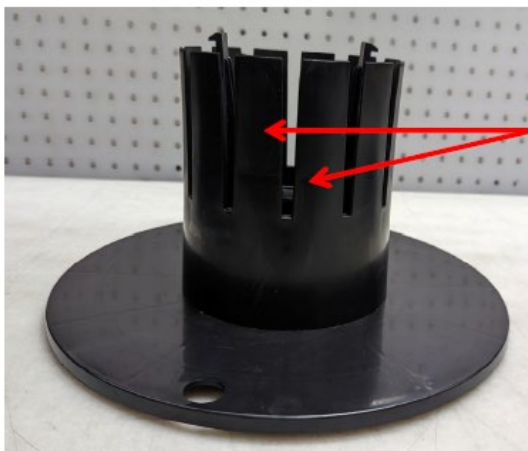
Replacing the Cable Reel:



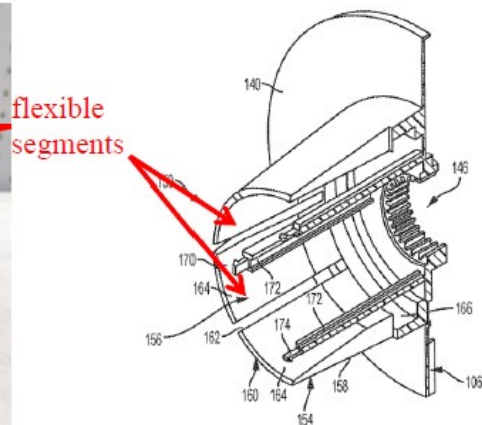
Id. at 15. The pictures include features identified under the heading “Innovative Design” as well as features identified in four steps explaining how to “Replac[e] the Cable Reel.” *Id.* Petitioner annotates the pictures to include red boxes surrounding certain features that Petitioner contends are “unclaimed features.” *Id.* Under the “Innovative Design” heading, Petitioner placed a red box around the following “Outside the Bag” features: “Tool Pouches,” “Parts Pouch,” “Tablet Pouch,” “Auxiliary Rings to Add

Extra Storage,” “Water Resistant Bottom,” “4 Grip Feet,” and “Shoulder Strap and Handle for Easy Carrying.” *Id.* Also under the “Innovative Design” heading, Petitioner placed red boxes around the following “Inside the Bag” features: “Reel Flange Snaps Off for Easy Cable Coil Replacement” and “Flexible Hub and Reel Allows for Easy Pay Off.” *Id.* Petitioner places red boxes around three of the four steps to replace the cable reel including, step 1 (“Tear out center plastic wrap on both sides of coil”), step 3 (“Align tabs and Snap top flange down onto hub”), and step 4 (“Remove outer plastic wrap from coil”). *Id.*

The second unclaimed feature identified by Petitioner in Patent Owner’s Tech Service Bag is a “flexible hub feature.” Pet. Reply 16. Petitioner provides the following annotated figure, which includes a picture from Exhibit 2018 and Figure 4B of the ’342 patent:




**Ex. 2018
(annotated)**



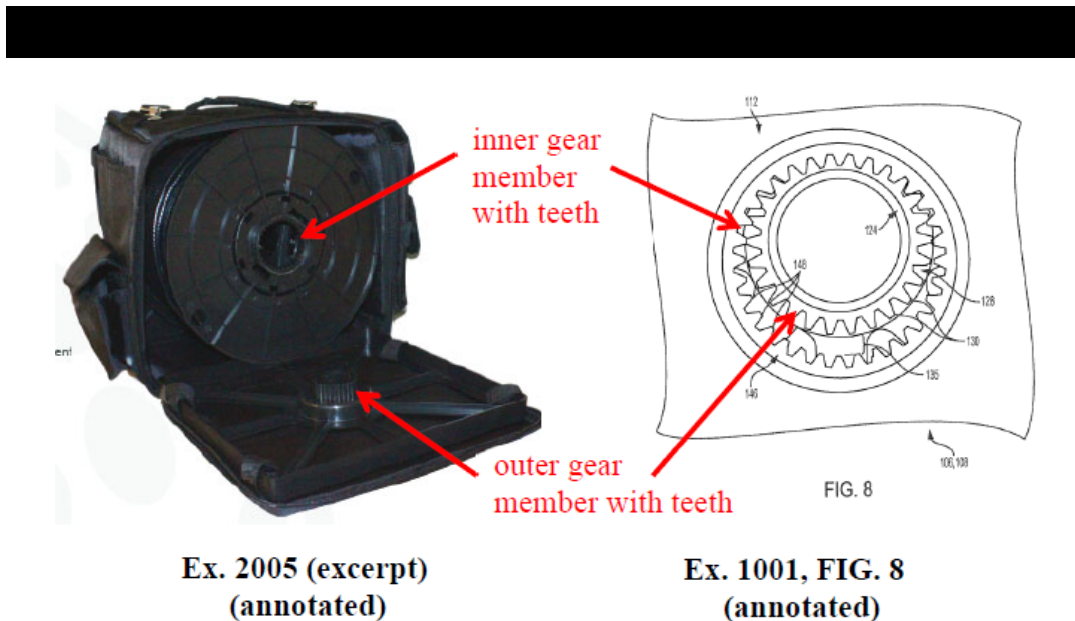
**FIG. 4B
Ex. 1001, FIG. 4B
(annotated)**

Id. Petitioner’s figure includes a picture from Exhibit 2018 (left) and Figure 4B of the ’342 patent (right) with annotations identifying what Petitioner has labeled “flexible segments” in each image. *Id.* Petitioner



contends the '342 patent illustrates a first hub including flexible segments 164 and that, when engaging with the second hub, the first hub expands flexible segments 164, which allows the hub to retain the cable coil. *Id.* at 15–16 (citing PO Resp. 31; Ex. 1001, 9:42–60, 10:32–36, Fig. 4B). Petitioner points to Patent Owner’s marketing materials reproduced above, which Petitioner contends “characterize this feature as an ‘Innovative Design[] And ‘Allows Easy Pay Off.’” *Id.* at 16 (alteration in original) (quoting Ex. 2005, 2). Petitioner further asserts the flexible hub is recited in claims of the '008 and '566 patents. *Id.* (citing Ex. 1044, 5:13–29 (claim 1); Ex. 1045, 5:20–6:12 (claim 1)).

The third unclaimed feature identified by Petitioner in Patent Owner’s Tech Service Bag is “a braking mechanism feature.” Pet. Reply 16. Petitioner contends the '342 patent “teaches that the braking mechanism addresses the problem of ‘payout [of] too much cable if the installer pulls too hard on the cable’ by limiting over-payout of the cable.” *Id.* (alteration in original) (quoting Ex. 1001, 1:23–25) (citing Ex. 1001, 8:43–46). Petitioner includes the following figure comparing a picture of Patent Owner’s Tech Service Bag (Ex. 2005) and Figure 8 of the '342 patent:



Id. at 17. Petitioner’s figure includes a picture of Patent Owner’s Tech Service Bag from Exhibit 2005 (left) and Figure 8 of the ’342 patent (right) with annotations identifying “inner gear member with teeth” and “outer gear member with teeth” in each image. *Id.* Petitioner asserts “the braking mechanism meshes the teeth of the outer gear member of the frame and internal gear member in the central opening of the flange, which ‘prevent[s] overpayout of the cable.’” *Id.* (alteration in original) (citing Ex. 1001, 10:4–18, 8:55–60, 9:16–22). Petitioner contends Patent Owner’s marketing materials emphasize the benefits of this braking feature by the statement, “creating accurate drop lengths.” *Id.* (quoting Ex. 2005, 1). And Petitioner asserts the braking mechanism feature is recited in the claims of two other patents in the same family that are not asserted in this proceeding—U.S. Patent Nos. 9,873,588 (Ex. 1046) and 10,611,598 (Ex. 1047). *Id.* (citing Ex. 1046, 5:21–36 (claim 1); Ex. 1047, 5:45–57 (claim 1)).

Petitioner asserts “[t]hese features of [Patent Owner’s] product—claimed by different patents—materially impact the product’s functionality

[REDACTED]

Paper 83 at 36–37 (PTAB Nov. 26, 2018)). Thus, Petitioner asserts “nexus cannot be presumed.” *Id.* at 19.

In its Sur-reply, Patent Owner raises two arguments in response to Petitioner’s Reply, each under the heading “A Nexus Should Be Presumed Between the Amphenol Sustainable Solution Tech Service Bag and the Challenged Claims.” PO Sur-reply 12–16 (emphasis from the heading omitted). Patent Owner contends the Tech Service Bag “embodies the claimed features of the ’342 Patent and is coextensive with the claims.” *Id.* at 12.

First, Patent Owner contends Petitioner’s identification of features in the Tech Service Bag that are not recited by the Challenged Claims fails to negate Patent Owner’s arguments of coextensiveness because the features identified by Petitioner are not “critical” and do not “amount[] to the ‘heart’” of an invention claimed in another, unasserted patent. PO Sur-reply 12–13 (citing *Fox Factory*, 944 F.3d at 1375). Patent Owner acknowledges that it referred to some of the unclaimed features as “innovative,” but that “hardly rises to the level of ‘the heart’ of the invention of the patents-in-suit.” *Id.* at 13.

Second, Patent Owner asserts that, even though not all of the Challenged Claims recite a prepackaged reel-less cable coil, that limitation is recited “*in every patent.*” PO Sur-reply 13. Thus, Patent Owner contends the patents “generally cover the same invention.” *Id.*

ii. Analysis


We find that Patent Owner has not established that it is entitled to a presumption of nexus. First, although Patent Owner’s claim-by-claim

[REDACTED]

analysis, in the Patent Owner Response, identifies how the limitations of each of the Challenged Claims are embodied in the Tech Service Bag (in other words, establishing that the Challenged Claims read on the Tech Service Bag), Patent Owner's Response includes no further attempt to show that the Challenged Claims are *coextensive* with the Tech Service Bag.²⁶ Showing that the Challenged Claims read on the Tech Service Bag does not also establish that the Tech Service Bag lacks significant additional features not recited by the Challenged Claims. This failure is particularly highlighted by Petitioner's identification of at least three features of the Tech Service Bag that are not recited in any of the Challenged Claims (Pet. Reply 12–18), an issue that Patent Owner does not contest. *See* PO Sur-reply 12–13 (responding to Petitioner's argument by contending none of the unclaimed features are “critical” or amount to the “heart” of another patent, but not contesting that the Tech Service Bag includes those features identified as unclaimed by Petitioner).

In its Sur-Reply, Patent Owner does not respond to Petitioner's arguments directed to *each* of the unclaimed features *specifically*; rather,

²⁶ This failure is also reflected in the language Patent Owner chose for its heading—“The presumption of nexus applies because the Time [sic] Fiber Tech Service Bag practices challenged claims.” PO Resp. 15 (Section VI.A.1). In other words, Patent Owner's argument is based on the Tech Service Bag practicing the Challenged Claims, not whether the Tech Service Bag is *coextensive* with the Challenged Claims. While these inquiries clearly have an overlap (you cannot show coextensiveness without also showing that at least one of the Challenged Claims reads on the Tech Service Bag), they are not one and the same because simply showing that the Tech Service Bag practices the Challenged Claims does not also speak to whether there are notable unclaimed features of the Tech Service Bag.



Patent Owner simply states that its reference to the unclaimed features as “innovative” does not rise to the level of indicating that they are the “heart” of another patent that includes claims reciting these features. PO Sur-reply 12–13. But, as Petitioner argues, Patent Owner’s own marketing materials call out these features and highlight them as being part of the “[i]nnovative [d]esign.” *See, e.g.*, Pet. Reply 15. In fact, the sheer number of such features identified as part of the innovative design also undermines Patent Owner’s effort to show coextensiveness. In particular, as Petitioner shows regarding Exhibit 2005, Patent Owner’s marketing materials list *seven* features “outside the bag,” all of which are unclaimed, and four features “inside the bag,” *two* of which are unclaimed. *Id.* (citing Ex. 2005, 2 (identifying unclaimed features with red boxes)). In other words, out of the *eleven* features identified in Patent Owner’s marketing materials as part of the “innovative design,” *only two* are claimed. *See* Ex. 2005, 2 (capitalization altered).

Further, Petitioner contends each of the features it identifies “materially impact[s] the product’s functionality regarding coil replacement and payout.” Pet. Reply 17. Yet, despite Petitioner’s extensive discussion of these features, covering no less than eight pages of its Reply, Patent Owner, in a single paragraph, responds not by contesting whether they materially impact the product’s functionality, but instead arguing that “innovative” does not mean “heart” of an invention and that the existence of unclaimed features, standing alone, does not necessarily negate a presumption of nexus. PO Sur-reply 12–13. To be clear, it is not the number of pages that matter; rather, it is the substance of the argument.

[REDACTED]


Patent Owner has the burden to show a presumption of nexus and by failing to adequately respond to Petitioner’s arguments regarding the significance of these undisputedly unclaimed features that are expressly highlighted in Patent Owner’s marketing materials as part of the “innovative design” of the Tech Service Bag, Patent Owner fails to satisfy its burden to show that the Tech Service Bag is coextensive with any of the Challenged Claims.

Thus, we find that Patent Owner has not established a presumption of nexus because Patent Owner has not established that the Tech Service Bag is coextensive with any of the Challenged Claims.

b. Nexus Absent the Presumption

As noted above, “[a] finding that a presumption of nexus is inappropriate does not end the inquiry into secondary considerations.” *Fox Factory*, 944 F.3d at 1375. “To the contrary, the patent owner is still afforded an opportunity to prove nexus by showing that the evidence of secondary considerations is the ‘direct result of the unique characteristics of the claimed invention.’” *Id.* at 1373–74 (quoting *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)).


Here, however, Patent Owner makes no attempt in the Patent Owner Response to argue nexus absent the presumption. *See* PO Resp. 15–60 (addressing nexus). Patent Owner’s organization of its Response reflects this, by addressing nexus in Section VI.A, titled “[a] strong nexus exists between the objective evidence and the merits of the claimed invention.” PO Resp. 15 (heading formatting altered). The sole subsection that follows—Section VI.A.1—is titled “The presumption of nexus applies because the Time [sic] Fiber Tech Service Bag practices challenged claims.”


Id. There is no Section VI.A.2, let alone another section of the brief addressing nexus absent the presumption. By pointing to Patent Owner’s organization of its Response, we do not put form over substance. The remainder of Patent Owner’s Response directed to objective indicia turns to addressing the specific objective indicia and fails to even mention the word “nexus,” let alone any synonym or other indication that Patent Owner argues for nexus without the presumption.²⁷ *See* PO Resp. 53–62. By not including any argument directed to nexus absent the presumption, we find that Patent Owner has waived any such argument. *See* Paper 8 (“Scheduling Order), 9–10 (“**Patent Owner is cautioned that any arguments for patentability not raised in the response may be deemed waived.**”).

Our finding of waiver is especially appropriate because Patent Owner has the burden to establish nexus and thus has the obligation to set forth its arguments in the Patent Owner Response to allow Petitioner an opportunity to respond. In its Sur-reply, Patent Owner, for the first time, contends that it relies on the claimed invention as a whole to establish nexus. *See* PO Sur-reply 14–16. Here, Patent Owner in part cites to *WBIP* for the first time,²⁸ for the proposition that, in contrast to Petitioner’s argument in the Reply (Pet. Reply 19–23), Patent Owner is not required to tie its objective

²⁷ From an organizational perspective, the objective indicia are Sections VI.B, VI.C, and VI.D. PO Resp. 53–62. Patent Owner did not place the discussion of these indicia under its nexus heading.

²⁸ Patent Owner cites *WBIP* once in its Patent Owner Response for a quote regarding the presumption of nexus, not in support of an argument regarding nexus absent the presumption and based on the invention as a whole. *See* PO Resp. 15.


indicia evidence solely to new features in the Challenged Claims if Patent Owner can show it is the “claimed combination as a whole that serves as a nexus for the objective evidence.” PO Sur-reply 16. We agree with the proposition for which Patent Owner relies on *WBIP*, and we have cited and quoted *WBIP* for that same reason in our statement of the law, above. We also agree with Patent Owner’s interpretation of *WBIP* in so far as the Federal Circuit’s decision acknowledges that a patent owner can show nexus based on the claimed combination as a whole as opposed to being limited to showing nexus based only on supposedly new features. *See id.*

Nonetheless, the burden is on Patent Owner to clearly articulate the basis for its arguments. In this case, Patent Owner clearly articulated that it was relying on a presumption of nexus and failed to argue (or even mention) nexus absent the presumption in the Patent Owner Response.²⁹ Under the circumstances presented here, our finding of waiver is supported on the complete record before us.

²⁹ At the oral hearing, in answer to a question whether Patent Owner was relying solely on the presumption of nexus, Patent Owner asserted that it also was relying on “some of the exact features of the reel-less coil of cable, separate from the presumption.” Tr. 51:8–19. But, Patent Owner asserted that its briefing was not “as clear” because it did not have the benefit of the Federal Circuit’s decision in *Volvo Penta of the Americas, LLC v. Brunswick Corp.*, 81 F.4th 1202 (Fed. Cir. 2023). *Id.* at 51:17–52:5. Patent Owner’s failure is not excused simply because *Volvo* was decided after the Patent Owner Response was filed. As reflected in our statement of the law above, the case law clearly set forth the ability of a patent owner to establish nexus with and without the presumption based on coextensiveness and explained that tying the objective indicia to the invention as a whole was a viable legal theory. Thus, we reject Patent Owner’s attempt to justify its omission of any argument of nexus absent the presumption in its Patent Owner Response.

c. Conclusion Regarding Nexus

In light of our findings above, we determine that Patent Owner has not satisfied its burden to show nexus. Nonetheless, we consider Patent Owner's evidence of objective indicia of nonobviousness and assess the evidence as though there were at least some basis to tie the evidence to Patent Owner's Tech Service Bag as a whole.

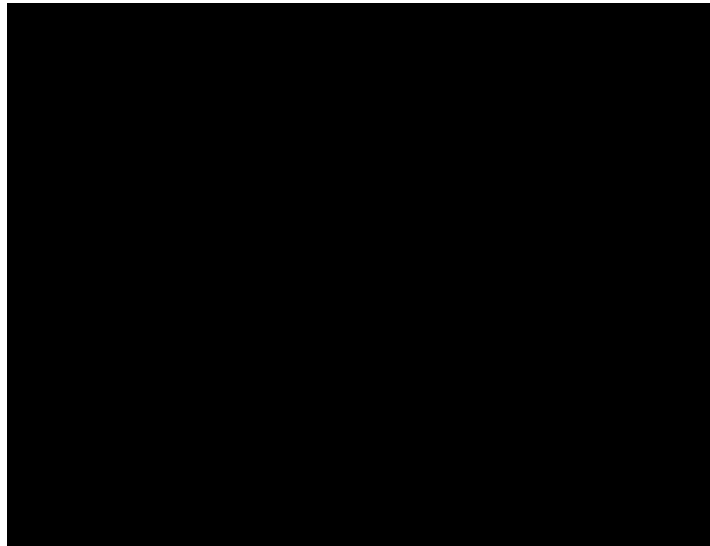
2. Alleged Commercial Success

Patent Owner asserts “[t]he commercial success of the [Tech Service] Bag demonstrates the non-obviousness of the claimed invention.” PO Resp. 53 (citing *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1350 (Fed. Cir. 2012)). Patent Owner contends that, in 2013, it developed a bag for transporting coaxial cable that was environmentally friendly and efficient for cable technicians and, in 2014–2015, it modified the bag to include a reusable reel and reel-less coil (naming the bag the Tech Service Bag). *Id.* In 2015, Patent Owner “rolled out the Tech Service Bag with Charter, one of the largest cable providers in the United States with 6.7 million customers.” *Id.* (citing Exs. 2009–2011; Ex. 2004 ¶¶ 7–8). Patent Owner asserts that, by 2017, “the Tech Service Bag was standardized for all [Patent Owner] provided supplies to Charter.” *Id.* (citing Ex. 2006; Ex. 2004 ¶ 10).

Patent Owner argues the Tech Service Bag “was specifically designed ‘to increase the efficiency of technicians by providing a simple to use, easy to carry alternative to standard cable reels or boxes,’ and significantly reduce cable and packing waste with a reusable reel and reel-less coil.” PO Resp. 54 (citing Ex. 2012). Patent Owner sold cable coils for the Tech

[REDACTED]

Service Bag in 500 feet reel-less coils. *Id.* (citing Ex. 2005; Ex. 2004 ¶ 6). Patent Owner compares the number of feet of cable it sold in 2015 “in connection with the [Tech Service Bags]” [REDACTED] with the number of feet of reel-less coil it sold since introducing the Tech Service Bags [REDACTED]. *Id.* (citing Ex. 2013; Ex. 2004 ¶ 12). Patent Owner contends the [REDACTED] of reel-less coil replaced [REDACTED] [REDACTED] and Patent Owner provides the following table showing the number of feet of reel-less cable sold for each year during 2015–2022.



Id. (citing Ex. 2013; Ex. 2004 ¶ 12).

Petitioner asserts Patent Owner’s evidence does not establish commercial success as a result of the merits of the Challenged Claims. Pet. Reply 23–26. Petitioner contends Patent Owner “selectively omitted the purported significance of such raw data, such as sales numbers of cable before the launch of the product, the total market of reel-less cable, and/or any comparisons to other companies in the industry.” *Id.* at 22. Petitioner argues that the evidence provided by Patent Owner “merely suggests that

[REDACTED]

[Patent Owner’s] product was created with one customer—Charter, and that the increased sales of reel-less cable coils in the first few years were due to the ramp-up of replacing old products with box packaging with the new product with bag packaging as needed by Charter.” *Id.* at 23. Petitioner presents several arguments in support.

First, Petitioner asserts Patent Owner’s evidence shows that the Tech Service Bag [REDACTED] Pet. Reply 23 (quoting Ex. 2006, 4) (citing Ex. 2011, 1). Petitioner points to statements such as

[REDACTED]
[REDACTED] and Patent Owner [REDACTED]
[REDACTED]
[REDACTED] *Id.* at 23–24 (quoting Ex. 2011, 1).


Second, Petitioner contends Patent Owner’s evidence “shows that after joint creation of the product, Charter and [Patent Owner] implemented a ‘transition plan’ to ramp up or roll out the product to replace the old product with box packaging over time at different regions.” Pet. Reply 24 (citing Ex. 2011, 1; Ex. 2010, 1; Ex. 2012, 1). Petitioner asserts Patent Owner’s evidence “further indicates that the transition started at the end of 2015 and continued in 2016 to 2018.” *Id.* at 24–25 (citing Ex. 2011, 1; Ex. 2010, 1; Ex. 2006, 4). Thus, Petitioner argues the “‘transition plan’ as agreed between [Patent Owner] and Charter to replace the old box packaging with the new bag packaging in more awarded regions caused the ramping up of [Patent Owner’s] sales of reel-less cable coil over 2015 to 2018, unrelated to the merits of the Challenged Claims.” *Id.* at 25 (citing *Lectrosonics*, IPR2018-01129, Paper 33 at 33; *Fox Factory*, 944 F.3d at 1373–75).

[REDACTED]

Third, Petitioner asserts Patent Owner’s evidence “shows that [Patent Owner’s] alleged increased sales of reel-less cable were due to economic and commercial factors unrelated to the merits of the Challenged Claims.” Pet. Reply 25. Specifically, Petitioner contends that “[t]o incentivize Charter to transition to [Patent Owner’s] new product, [Patent Owner] offered to provide Charter free bags, training, and future replacement bags at a low price.” *Id.* (citing Ex. 2006, 1; Ex. 2011, 1; Ex. 2012, 1). And Petitioner argues Patent Owner “also offered many other incentives to Charter, including [REDACTED] [REDACTED] unrelated to the claimed invention of the ’342 patent.” *Id.* at 26 (citing Ex. 2006, 2–5).

Fourth, Petitioner asserts Patent Owner’s “commercial success theory is also factually and legally erroneous because it stems from what was known in the prior art such that the requisite nexus to the Challenged Claims cannot exist.” Pet. Reply 26 (citing *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369–70 (Fed. Cir. 2011) (“If commercial success is due to an element in the prior art, no nexus exists.”)). Petitioner argues that, “[a]s shown in the Petition, using a bag, a separable reusable reel, and a prepackaged reel-less cable coil was known in the prior art.” *Id.* (citing Pet. 17–98; Exs. 1004–1006).

In its Sur-reply, Patent Owner contends Petitioner’s discussion of creating the Tech Service Bag with Charter is a “red herring” because inventorship is not an issue in this proceeding. PO Sur-reply 17. Next, Patent Owner challenges Petitioner’s argument regarding whether a transition plan drove sales of prepackaged reel-less cable coil as opposed to



the merits of the Challenged Claims. *Id.* (citing Pet. Reply 25). Patent Owner contends Petitioner’s argument “ignores the basic premise that transition from an old product to the claimed product is evidence of industry adoption over the prior art.” *Id.* (citing *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1325 (Fed. Cir. 1999)). Thus, Patent Owner argues any transition plan “only supports Patent Owner’s assertion that the industry adopted the claimed invention over the prior art.” *Id.* Patent Owner asserts “Charter is one of the largest cable providers in the United States with 6.7 million customers in 2015,” and “‘replacing of old products . . . with the new product’ by one of the largest customers in the industry is hardly insignificant.” *Id.* at 18. And Patent Owner contends Petitioner’s argument regarding the point of novelty cannot rebut its showing of commercial success because Patent Owner “demonstrated that the commercially successful products met *all* of the limitations of the asserted patent claims, which necessarily included the points of novelty.” *Id.* (citing PO Sur-reply § IV.A; PO Resp. 16–52).


We find that Patent Owner’s evidence fails to establish that the Tech Service Bag achieved commercial success and also fails to establish that the evidence presented is either tied “to the inventive combination of known elements” disclosed in the prior art or “to an individual element” not disclosed in the prior art. *See WBIP*, 829 F.3d at 1332; *Yita LLC v. MacNeil IP LCC*, 69 F.4th 1356, 1364 (Fed. Cir. 2023).

First, it is important to be clear that the product Patent Owner identifies as practicing the Challenged Claims is the Tech Service Bag. *See* PO Resp. 16–52 (mapping the Challenged Claims to the Tech Service Bag).

[REDACTED]

Yet, despite Patent Owner’s identification of the Tech Service Bag as the commercial embodiment of the Challenged Claims, Patent Owner’s only evidence of commercial success is the number of feet of *reel-less cable* sold. *See id.* at 61; *see also* Ex. 2004 ¶ 12. Patent Owner does not present evidence of the number of Tech Service Bags sold, the dollar value of the Tech Service Bags sold, or the dollar value of the number of feet of reel-less cable sold. In other words, the only evidence of commercial success presented by Patent Owner is tied to *one component* of the overall Tech Service Bag—reel-less cable—and provides only the *number* of such components sold without context.

Second, it is undisputed that pre-wound, reel-less cable was known in the prior art. Specifically, Petitioner pointed to Blunt’s disclosure of cable 28, which Blunt teaches “can be pre-coiled and slid axially over the core.” Pet. 47 (quoting Ex. 1004 ¶ 72) (citing Ex. 1004, Fig. 11, ¶ 10; Ex. 1002 ¶¶ 80–82). Patent Owner does not dispute that pre-wound, reel-less cable was disclosed in the prior art. *See generally* PO Resp. Petitioner pointed to Blunt’s disclosure of cable 28, which Blunt teaches “can be pre-coiled and slid axially over the core.” Pet. 47–48 (quoting Ex. 1004 ¶ 72) (citing Ex. 1004, Fig. 11, ¶ 10; Ex. 1002 ¶¶ 81–82). Patent Owner does not dispute that reel-less cable was disclosed in the prior art. *See, e.g.*, PO Resp. 3–7 (disputing only whether Blunt discloses a prepackaged coil of cable). Thus, the sole evidence of commercial success presented by Patent Owner is tied to one component of the Tech Service Bag commercial product, and correspondingly one element of the Challenged Claims, which component/element is undisputedly known in the prior art. Accordingly, we


find a lack of nexus between the claimed invention and the evidence of commercial success.

Third, independently of the question of nexus, we find that Patent Owner's evidence is incredibly weak. Specifically, Patent Owner provides no evidence of the market as a whole (whether for a bag to hold/dispense cable or for reel-less cable) or its market share. Although market share data is not required to show commercial success, *see Incept LLC v. Palette Life Scis., Inc.*, 77 F.4th 1366, 1377 (Fed. Cir. 2023), it is useful when trying to establish or assess commercial success. *Id.* Here, the number of feet of coil-less cable sold fails to provide any information regarding the dollar amount of the sales or the market in general (in other words, how many feet of coil-less cable were sold in the total market). Patent Owner asserts that Charter had 6.7 million cable customers in the United States in 2015, in an apparent effort to establish significance in the market. *See* PO Resp. 53 (citing Ex. 2009; Ex. 2011; Ex. 2004 ¶¶ 7–8; Ex. 2010). But, Patent Owner fails to present any evidence of the total number of cable customers in the United States in 2015, thereby depriving us of the opportunity to compare the adoption of its Tech Service Bag by Charter to the broader market. Additionally, Patent Owner relies on the increase in the number of feet of reel-less cable sold *after* 2015 (i.e., from 2015 through 2022), but does not provide any evidence of the number of Charter's cable customers after 2015. *See generally id.* Thus, Patent Owner's evidence does not establish "significant sales in a relevant market." *Incept*, 77 F.4th at 1376 ("Commercial success is 'usually shown by significant sales in a relevant

market.” (quoting *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997)).

Fourth, another factor we consider is the question of what drove the sales of the reel-less cable. Petitioner points to evidence that Patent Owner

See, e.g., Pet. Reply 25 (discussing Ex. 2006, 1; Ex. 2011, 1; Ex. 2012, 1). From the evidence of record, it is entirely plausible that Charter purchased reel-less cable to use in the bags because

and not due to the merits of the claimed invention. The point being that because Patent Owner has not provided any evidence on the sales of the Tech Service Bag and because the evidence clearly indicates that

receiving the bags could explain the *reason* Charter purchased so many feet of reel-less cable (meaning that the reason was not because of anything tied to the specific product itself).

Taking into account all of the evidence presented by Patent Owner, for the reasons discussed above we find (a) Patent Owner has failed to establish nexus (whether considering the Tech Service Bag as a whole or a specific feature of the Tech Service Bag (i.e., reel-less cable)) and, even assuming nexus, (b) Patent Owner’s evidence of commercial success is very weak at least because it (i) relates only to feet of reel-less cable sold, (ii) fails to provide any context of the entire market or market share of those sales, and (iii) does not provide sufficient evidence from which to establish what drove the sales of reel-less cable. Our ultimate weighing of all the

[REDACTED]

evidence of record below takes into account these substantial weaknesses in Patent Owner’s proffered evidence of commercial success.

3. *Alleged Long-Felt Need and Industry Adoption over the Prior Art*

Patent Owner contends the Tech Service Bag “fulfilled a long-felt need for a more environmentally friendly and sustainable solution for cable installation.” PO Resp. 54–55. Patent Owner asserts “[t]his long-felt but unmet need demonstrates nonobviousness because ‘the need would not have persisted had the solution been obvious.’” *Id.* at 55 (quoting *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1054–56 (Fed. Cir. 2016) (en banc)). Patent Owner contends “[c]ompanies throughout the cable industry have adopted the claimed invention to help achieve this goal. The industry’s widespread acceptance of the claimed invention shows the claimed invention is not obvious.” *Id.* at 55 (citing *Allen Archery, Inc. v. Browning Mfg. Co.*, 819 F.2d 1087, 1092 (Fed. Cir. 1987)).

Patent Owner alleges companies, such as Cox Communications, “were looking for solutions to reduce waste in the cable industries since at least 2007.” PO Resp. 55 (citing Ex. 2015, part one at 2:08; Ex. 2016, part one at 1). Patent Owner “marketed the reel-less cable design of the Tech Service Bag as part of its sustainability solution.” *Id.* (citing Ex. 2015, part one at 12:28). And Patent Owner contends other companies, including Petitioner, “have implemented sustainability goals which include reducing waste.” *Id.* at 56–57 (citing Ex. 2015, part one at 14:18, part one at 9:30, part two at 00:43).

[REDACTED]


Patent Owner points to a statement by Josh Hirschey, who is described as a General Manager of Amphenol Broadband Solutions (Ex. 2016, part 1 at 1:24), that the Tech Service Bag has “created . . . such a huge impact for the industry.” PO Resp. 58 (omission in original) (quoting Ex. 2015, part two at 8:15, Ex. 2016, part two at 3). Patent Owner contends that due in part to the use of reusable reels, it “estimates that it was able to reduce its garbage output by 32% and its greenhouse gas emissions by roughly 12% over a three year period after introduction of that solution, leading to the International Organization for Standardization to give [Patent Owner] its global environmental certification.” *Id.* (citing Ex. 2008; Ex. 2004 ¶ 11). Additionally, Patent Owner points to a Cox representative’s statement that Cox converted all of its 500 feet cable coils to reel-less technology, saving 50,000 reels per year. *Id.* (citing Ex. 2015, part two at 12:52; Ex. 2016, part two at 5).

In its Reply, Petitioner contends Patent Owner’s assertion of fulfilling a long-felt need for a more environmentally friendly and sustainable solution for cable installation lacks “the requisite **nexus** to the merits of the Challenged Claims” and Patent Owner fails to provide evidence supporting its argument. Pet. Reply 26 (citing Pet. Reply § IV.A.2). Petitioner asserts Patent Owner “identified no specific date for the purported long-felt need and presents no evidence of ‘any failure of others, any unsatisfied demand, any long-awaited solution to a problem, or any other persuasive basis to show the existence of a long-felt need at the time of invention.” *Id.* at 27 (quoting *FMC Techs., Inc. v. OneSubsea IP UK Ltd.*, IPR2019-00935, Paper 45 at 80 (PTAB Oct. 14, 2020)). Instead, Petitioner contends Patent

Owner “presented a recording of a panel discussion at the 2020 SCTE-ISBE Cable-Tec Expo, which shows that various companies, including [Petitioner], had already implemented their own solutions for such an alleged long-felt need.” *Id.* (citing PO Resp. 55–58; Ex. 2015; Ex. 2016). Additionally, Petitioner argues Patent Owner’s reliance on a 2022 news article (Ex. 2008) also is unavailing because “[i]t merely describes general sustainable policies and processes at one of [Patent Owner’s] plants that led to global certification for environmental management, and thus it has no bearing on any long-felt but unresolved need of the cable industry, any failure by others, or a demand for the claimed invention.” *Id.* at 27–28 (citing PO Resp. 58; Ex. 2008).


Petitioner contends Patent Owner’s “purported long-felt need was solved by the prior art well before the time of the claimed invention, such as Fontana, Brochure, and Blunt, all of which teach solutions to [Patent Owner’s] purported need.” Pet. Reply 28 (citing *Nike, Inc. v. Adidas AG*, 955 F.3d 45, 55 (Fed. Cir. 2020); *Ex parte Thompson*, No. 2011-011620 at 6 (PTAB 2014) (informative)).

In its Sur-reply, Patent Owner contends it provided a date of 2007 for the long-felt need based on a Cox representative’s statement during the panel discussion in 2020. PO Sur-reply 18 (citing PO Resp. 55 (citing Ex. 2015, part one at 2:08; Ex. 2016, part one at 1)). Patent Owner asserts its evidence does not show that other companies had already implemented their own solutions to address the long-felt need because their representatives’ statements in 2020 “do[] not detract from the long-felt need felt *prior* to the


priority date of the '342 Patent. Instead, it further supports industry adoption of the claimed technology and copying by others.” *Id.* at 18–19.


Additionally, Patent Owner contends that Petitioner’s assertion that any long-felt need “was solved by the prior art” of Fontana, Brochure, and Blunt “is true of all obviousness cases.” PO Sur-reply 19. But Patent Owner asserts (based on its argument described above) that the prior art does not disclose or render obvious “the prepackaged claims of the '342 Patent.” *Id.* (citing PO Resp. 2–14; PO Sur-reply §§ II, III). Patent Owner argues that, “even if the Board were to believe Petitioner that the cited prior art in combination discloses the limitations, that is not an invitation to ignore secondary considerations. . . . [Rather,] they ‘must be considered’ as part of the analysis” *Id.* (quoting *Apple*, 839 F.3d at 1048).

“Evidence of a long felt but unresolved need tends to show non-obviousness because it is reasonable to infer that the need would have not persisted had the solution been obvious.” *WBIP*, 829 F.3d at 1332. Patent Owner contends the Tech Service Bag “fulfilled a long-felt need for a more environmentally friendly and sustainable solution for cable installation.” PO Resp. 61–62. Patent Owner’s evidence shows that some companies, such as Cox, were seeking solutions to reduce waste and be more environmentally friendly at least since 2007. *Id.* at 55 (citing Ex. 2015, part one at 2:08; Ex. 2016, part one at 1). Patent Owner persuasively shows that the Tech Service Bag as a whole was developed with an eye toward addressing some of that need, particularly with regard to reducing waste from used reels. Patent Owner’s evidence also shows that other companies were implementing similar solutions, using bags to hold reel-less coils of cable and thereby also



reducing waste (i.e., used reels). *See* Exs. 2015, 2016. As discussed further below, however, Patent Owner does not establish copying or that the other companies developed similar solutions based on Patent Owner’s Tech Service Bag as opposed to an industry-wide desire to be more environmentally friendly with a readily available solution. In fact, the primary message conveyed in the evidence principally relied on by Patent Owner—Exhibits 2015 and 2016—is that the industry was moving in a more environmentally friendly direction and that at least three companies had their own bags that allowed the use of reel-less coils of cable—Patent Owner, Petitioner, and CommScope—each of which achieved the same result of reducing waste from used reels. *Id.* The evidence also shows that the industry was taking other steps to reduce their environmental impact, such as using electric vehicles, green rooftops, and marking coaxial cable to indicate length before it is dispensed. *Id.* In other words, bags that permitted the use of reel-less coils of cable, like the Tech Service Bag, played a role in that general effort. And, the evidence shows that the use of these types of bags resulted in a reduction of waste at least attributed to the use of reusable reels.

Nonetheless, Patent Owner has not shown that the Tech Service Bag itself, as opposed to any of the other bags or all of the bags in the aggregate, met the long-felt need. Specifically, the evidence relied on by Patent Owner, which is principally Exhibits 2015 and 2016, discusses three companies’ use of their own bags that achieve the same result. And although the news article discussing Patent Owner’s global environmental certification mentions “reusable plastic reels,” it also highlights Patent Owner’s reduction of water consumption and reduction of power consumption as reasons for



the certification. Ex. 2008, 2. None of the evidence, however, shows “widespread acceptance of *the claimed invention*” or that “the cable industry [has] adopted *the claimed invention*” (PO Resp. 55 (emphases added)) because Patent Owner has not shown that any of the Challenged Claims read on the other bags or that the other bags have the same claimed features as the Tech Service Bag. And, as further discussed below in our consideration of Patent Owner’s arguments regarding copying, Petitioner appears to “use[] its own reusable reel” in its Perfect Tote™. Pet Reply 29 (citing Ex. 2007, Ex. 2014; Ex. 2015; Ex. 1006; Ex. 1038, 8; Ex. 2002, 17:1–11). Thus, Patent Owner’s broad-brushing statements regarding industry adoption and widespread acceptance lack evidentiary support specifically tying those concepts and the statements from Exhibits 2015 and 2016 to its Tech Service Bag embodying the claimed invention, as opposed to the use of other bags which may or may not embody the claimed invention based on the record presented.

In light of the above discussion, we find that Patent Owner has shown some minimal degree of nexus based on the Tech Service Bag as a whole related to the expressed general need in the industry to find more environmentally friendly solutions for the cable industry. We also find that Patent Owner has shown, to a degree, that the Tech Service Bag met some of that need in that it reduced waste, i.e., the number of used reels that required disposal. But we also find that Patent Owner has not shown that its claimed invention alone met that need as opposed to the several products also available that were directed to and did achieve the same goal—reducing the number of used reels by using reel-less coils of cable—perhaps in unclaimed

[REDACTED]

ways. Our ultimate weighing of all the evidence of record below takes into account these considerations regarding Patent Owner’s proffered evidence of long-felt need and industry adoption.


4. *Alleged Copying*

Patent Owner asserts that it “was the first to offer a reusable reel Tech Service Bag with reel-less coils of cable” and Petitioner and third-party CommScope “marketed copies of the claimed invention, demonstrating nonobviousness.” PO Resp. 58 (citations omitted). Patent Owner contends Petitioner’s “publicly available documents demonstrate copying of the [Tech Service Bag].” *Id.* at 59. Patent Owner points to Petitioner’s marketing material, which refers to Petitioner’s product as a “Reusable Reel Solution” that is compatible with Petitioner’s Perfect Tote™. *Id.* (citing Ex. 2014). Patent Owner asserts the “[i]nstallation instructions for [Petitioner’s] Reusable Reel demonstrate a bag with a base, cover, first and second flanges, first and second frames, and a pre-round [sic] reel-less coil of cable.” *Id.* at 59–60 (citing Ex. 2007). Patent Owner provides the following annotated version of the installation instructions shown in Exhibit 2007:



Id. at 60. Exhibit 2007 is Petitioner’s “Installation Instructions” for its “Perfect Flex Cable & Reusable Reel” and shows six steps. Ex. 2007. Patent Owner annotated the exhibit to identify a bag cover; a bag base; a separate pre-wound reel-less coil of cable; the bag being sized to hold the cable reel apparatus when assembled; and a first and second flange engaging a first and second frame, respectively. PO Resp. 60.

Patent Owner further asserts Petitioner “has publicly admitted that the reusable reel is a ‘key feature’ of their [Perfect Tote™] and sustainability goals.” *Id.* (citing Ex. 2015, part two at 4:27; Ex. 2016, part two at 2). And Patent Owner points to one of Petitioner’s slides from Exhibit 2015 that describes Petitioner’s “Sustainability Management Plan,” refers to “Zero


Plastic Waste Cable Package,” and provides three benefits of the plan: (1) recyclable cardboard packaging for the cable coil; (2) eliminating 5 square feet of plastic waste per 500 feet of cable coil; and (3) the reusable reels eliminating 600,000 reels from disposal. *Id.* at 61 (citing Ex. 2015, part two at 3:35).

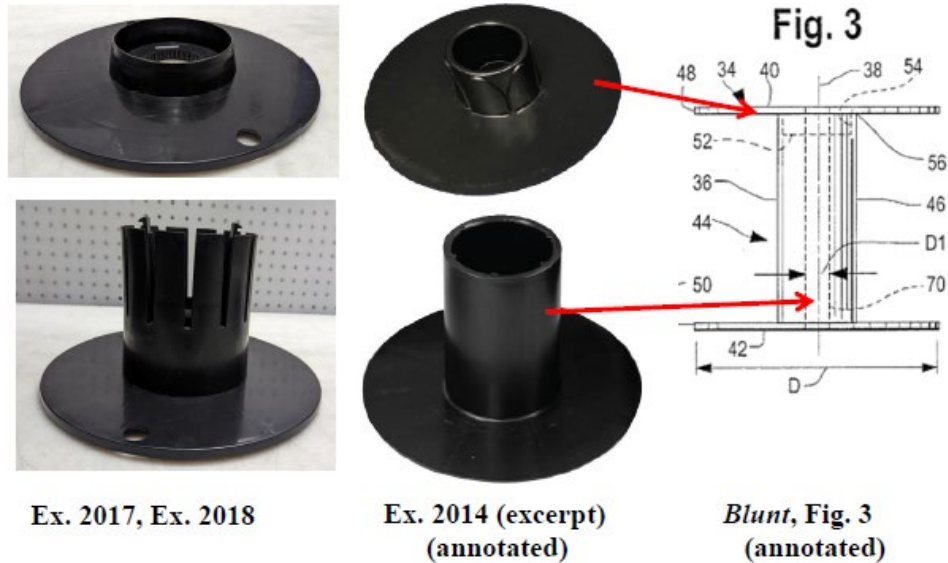
Pointing to CommScope, Patent Owner asserts CommScope’s representative “stated that their reusable reel and [t]ech [b]ag are ‘very similar to the other companies and a very successful program.’” PO Resp. 61 (citing Ex. 2015, part two at 10:00; Ex. 2016, part two at 4). Patent Owner includes a slide from Exhibit 2015 that states “CommScope Drop Coax Coils” and notes “[a]ll components are reusable and recyclable,” including the bag, flanges, and reel, and that the only waste is the plastic wrap and label for the reel-less cable coil. *Id.* at 62 (citing Ex. 2015, part two at 8:52).

Petitioner raises two arguments in its Reply. First, Petitioner asserts “copying requires evidence of efforts to replicate a specific product” and Patent Owner “provided no such evidence.” Pet. Reply 28 (citing *ZUP, LLC v. Nash Mtg., Inc.*, 896 F.3d 1365, 1375 (Fed. Cir. 2018); PO Resp. 58–62).

Second, Petitioner contends Patent Owner “failed to show that either [Petitioner’s] or CommScope’s products replicate [Patent Owner’s] product, let alone any evidence of actual copying” for two reasons: (1) Patent Owner “failed to show that either [Petitioner’s] or CommScope’s products include[] the features” Petitioner identified in Patent Owner’s Tech Service Bag yet are unclaimed in any of the Challenged Claims (Pet. Reply 28 (citing Pet. Reply § IV.A.1)); and (2) Petitioner’s reusable reel “embodies its own prior

art disclosure in Blunt” in contrast to Patent Owner’s reel (*id.* at 29).

Petitioner provides the following comparison:



Pet. Reply 29. Petitioner shows Patent Owner’s reusable reel on the left (Exhibits 2017 and 2018), compared to Petitioner’s reusable reel in the center (excerpted from Exhibit 2014) and Blunt’s reusable reel on the right (from Blunt’s Figure 3). *Id.*

Additionally, Petitioner contends “[t]he evidence also shows that [Petitioner’s] product uses its own reusable reel with [Petitioner’s] [Perfect Tote™] [(Exs. 1006, 2007, 2014, 2015)], which [Petitioner] disclosed in Brochure, displayed at the SCTE Cable-Tec Expo 2014, and sold prior to the time of the invention.” Pet. Reply 29 (citing Ex. 1038, 8; Ex. 2002, 17:1–11). Petitioner provides a second comparison as follows:



Id. at 30. Petitioner shows three images of its Perfect Tote™, including on the left (excerpt from Exhibit 2007), in the center (excerpt from Exhibit 2015, part two at 3:35), and on the right (excerpt from Exhibit 1006). *Id.* Petitioner includes an annotation identifying each bag as its Perfect Tote™.

Patent Owner does not address Petitioner's arguments regarding copying in its Sur-reply. *See, e.g.*, PO Sur-reply 12–21.

“[C]opying requires evidence of efforts to replicate a specific product, which may be demonstrated through internal company documents, direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a replica, or access to the patented product combined with substantial similarity to the patented product.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010); *see Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1370 (Fed. Cir. 2011). Patent Owner's evidence shows that its product, Petitioner's product,

[REDACTED]


and CommScope's product are similar. *See* PO Resp. 58–62. Each has a bag that includes two frames, two flanges, and a reusable reel that holds a coil a cable and fits in a bag that includes an opening to dispense cable. Patent Owner's evidence of similarity, however, stops there.

Petitioner's evidence demonstrates that its reusable reel and Perfect Tote™ resemble the structural features shown in the prior art combination of Brochure and Blunt, particularly the structure of the reusable reel and its mechanism for separating and reattaching in order to add a reel-less coil of cable. And, Patent Owner fails to show any evidence regarding the operation and mechanism of CommScope's reusable reel. Further, that Brochure describes Petitioner's product, Blunt is assigned to Petitioner, and each is undisputedly prior art, we find it at least equally if not more persuasive, that Petitioner developed its Perfect Tote™ based on its own work as opposed to copying Patent Owner's Tech Service Bag. Petitioner's prior work with a similar product combined with a lack of evidence provided by Patent Owner regarding CommScope's product (and whether CommScope copied Patent Owner's product), leads to our finding that Patent Owner's evidence of copying is very weak on the record before us.

Our ultimate weighing of all the evidence of record below takes this finding into account.

4. *Weighing the Graham Factors*

“Once all relevant facts are found, the ultimate legal determination [of obviousness or nonobviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.” *Arctic Cat*, 876 F.3d at 1361. On balance, considering


the complete record before us, Petitioner has established, by a preponderance of the evidence, that claims 1–12 and 14–22 of the '342 patent would have been obvious to one of ordinary skill in the art at the time of the invention.

In particular, Petitioner has established that the combination of Brochure and Blunt teaches or suggests the subject matter of the Challenged Claims. The proposed combinations are not based on hindsight reconstruction; rather, they are straightforward and logical and based on the prior art. In particular, as discussed above, Petitioner establishes that one of ordinary skill in the art would have been motivated to modify Brochure's reel structure with Blunt's reel or substitute Blunt's reel for Brochure's reel and would have had a reasonable expectation of success in achieving the combination proposed.

In our balancing of the evidence weighing in favor of and against obviousness, we consider the summation of the weight we attribute to each of the objective indicia identified by Patent Owner. *See Volvo*, 81 F.4th at 1215 (discussing the summation of the weight attributed to objective indicia evidence). Our weighing of this evidence assumes Patent Owner established some modicum of nexus to the Tech Service Bag as a whole as Patent Owner alleges in its Sur-reply. Nonetheless, for the reasons explained, Patent Owner's evidence of objective indicia of nonobviousness carries very little weight. To reiterate some of our reasoning here, Patent Owner's evidence suffers from several weaknesses including (1) failing to show that either Petitioner's or CommScope's products replicate or copy Patent Owner's product; (2) failing to provide sufficient evidence of commercial

[REDACTED]

success; and (3) failing to show widespread acceptance of *the claimed invention* or that the cable industry has adopted *the claimed invention*. We reiterate that Patent Owner has shown some degree of nexus based on the Tech Service Bag as a whole related to the expressed need in the industry to find more environmentally friendly solutions for the cable industry. However, the weight of that evidence is offset by Patent Owner's failure to show that its claimed invention alone met that need as opposed to the several products also available that were directed to and did achieve the same goal. Thus, on the whole, considered together, the weight we attribute to the objective indicia evidence is minimal as compared to Petitioner's strong evidence of obviousness.

Accordingly, on balance, considering the complete record before us, Petitioner's evidence of obviousness is substantial and far outweighs Patent Owner's evidence of nonobviousness, even assuming Patent Owner established some degree of nexus. Therefore, we determine that Petitioner has established, by a preponderance of the evidence, that the combination of Brochure and Blunt would have rendered the subject matter of claims 1–12 and 14–22 of the '342 patent obvious to one of ordinary skill in the art before the effective filing date of the invention.

C. Ground 3: Obviousness over Brochure, Blunt, and Fontana

Petitioner asserts that the combination of Brochure, Blunt, and Fontana would have rendered the subject matter of claims 1–12 and 14–22 obvious to one of ordinary skill in the art before the effective filing date of the invention. Pet. 83–86. Petitioner explains that a "POSITA would have understood that Blunt discloses the claimed 'pre-wound, reel-less coil of

[REDACTED]

cable’ recited in claims 1–2, 12, 17, and 19–20 . . . [and] the claimed ‘prepackaged, pre-wound, reel-less coil of cable’ recited in claim 7.” *Id.* at 83–84. Nonetheless, Petitioner asserts that “[t]hese elements are also rendered obvious in view of Fontana.” *Id.* at 84 (citing Ex. 1002 ¶¶ 165–169). In other words, Petitioner relies on Fontana essentially as an alternative to Blunt for the element of claim 7 and its dependent claims 8–10. *Id.*

1. Fontana

Fontana is directed to “[a]n apparatus for dispensing electrical or nonelectrical cables, such as television coaxial cables, and a spool to be used together therewith.” Ex. 1005, code (57). Fontana discloses a reusable cable payout system that eliminates plastic waste, which is a disadvantage of using cable on plastic reels. *Id.* at 1:10–20, 1:57–64. Fontana also discloses a mechanism that allows for the user to “partially rewind [the cable] when it is too long.” *Id.* at 1:62–64. Figure 6 is reproduced below.

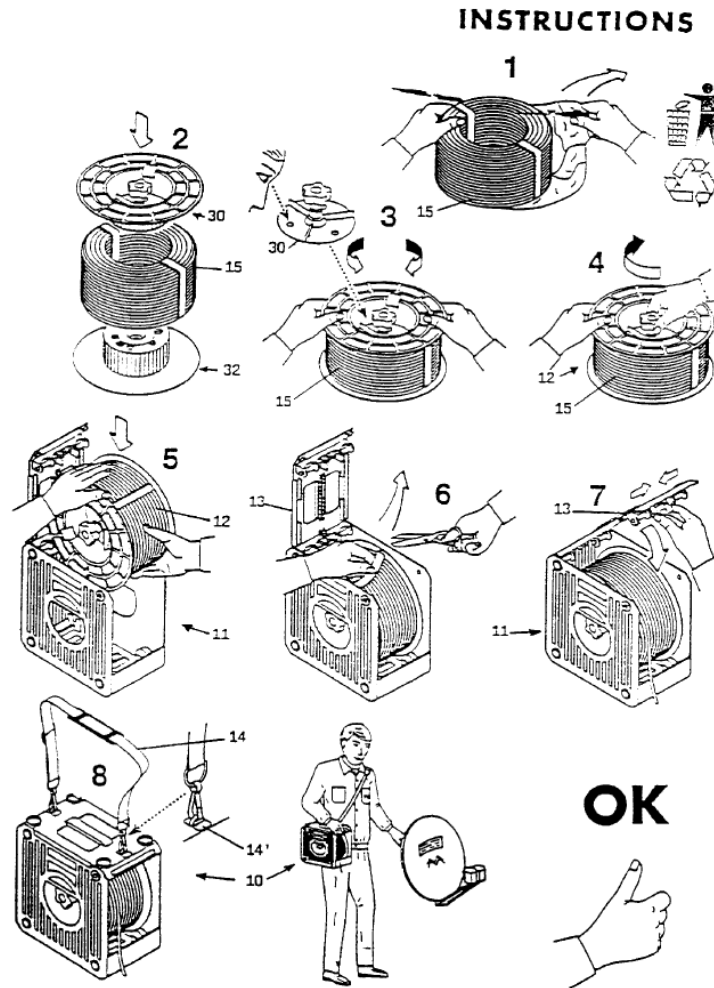



Fig. 6

Figure 6 shows “the different steps to load the cable coil on the spool and to prepare the spool holder.” *Id.* at 2:20–22. Step 1, shown above in Figure 6, involves removing any “packaging thin film” from the coil. *Id.* at 4:38–39, Fig. 6.

2. Petitioner’s Challenge (the Petition)

Petitioner contends one of ordinary skill in the art “would have understood Fontana’s cable coil 15 without the spool to be ‘reel-less’ because it would be loaded between the first and second flanges of spool 12


and replenished with another coil.” Pet. 85 (citing Ex. 1005, 1:21–25, 1:65–67; Ex. 1002 ¶ 167). Petitioner asserts one of ordinary skill “would have understood that Fontana’s cable coil 15 is ‘pre-wound’ because the coils are in the form of a joined sequence of concentric circles.” *Id.* (citing Ex. 1005, Fig. 6; Ex. 1002 ¶ 167). Petitioner also contends “Fontana discloses that cable coil 15 is prepackaged with a ‘thin film [that] is taken off from the coil’ before being loaded between the first and second flanges of the spool.” *Id.* (alteration in original) (citing Ex. 1002 ¶ 167; Ex. 1005, 4:38–39, Fig. 6).

Turning to Blunt, Petitioner reiterates Blunt discloses that “cable 28 can be pre-coiled and slid axially over the core 36” and that reel 34 is removed “once the supply of cable 28 is exhausted to allow a new supply 26 of cable 28 to be replaced.” Pet. 85–86 (citing Ex. 1004 ¶¶ 72, 89). Petitioner asserts it would have been obvious “to substitute the supply of cable of Brochure’s cable reel as modified with Blunt for the equivalent cable coil 15 of Fontana so that the supply of cable in Brochure’s modified cable reel would be replenished when it is exhausted.” *Id.* (citing Pet. § VIII.A.3 (addressing motivation and reasonable expectation of success for combining Brochure and Blunt in the context of Ground 1); Ex. 1002 ¶ 168).

Additionally, Petitioner asserts one of ordinary skill in the art “would have been motivated to make the substitution to avoid unravelling of the cable during storage as taught by Blunt and/or to protect the cable from atmospheric corrosion or damage during transportation and storage, which is conventional and known in the prior art.” Pet. 86 (citing Ex. 1004 ¶ 87; Ex. 1012, 1:6–33; Ex. 1002 ¶ 169). Petitioner contends one of ordinary skill in the art “would have expected success in the substitution by simply


[REDACTED]

replenishing Brochure's cable reel as modified with Blunt with Fontana's prepackaged, pre-wound, and reel-less cable coil 15 in the same manner as taught by Blunt." *Id.* at 86 (citing Ex. 1004 ¶¶ 73, 89; Ex. 1002 ¶ 169).

3. *Patent Owner's Response*

Patent Owner contends one of ordinary skill in the art would not have been motivated to combine Fontana with Blunt and even if they would have made the combination "it would be inoperable because the prepackaging of Fontana is removed prior to the pre-wound reel-less cable coil being placed on the reel." PO Resp. 8–9. Specifically, Patent Owner asserts one of ordinary skill in the art would not have been motivated to combine Fontana and Blunt "because where Fontana removes prepackaging before placing a coil in the system, Blunt adds a post-packaging to prevent unravelling with the system." *Id.* at 11. Patent Owner asserts that Petitioner's reliance on Fontana "cherry-pick[s] different references to try to provide the combination" of the Challenged Claims, which shows "impermissible *ex post* reasoning and hindsight bias." *Id.* at 11–12. Patent Owner contends that Petitioner's combination would "first remove packaging, put a coil on a reel, and then add new packaging." *Id.* at 12. Patent Owner asserts "[t]his teaches away from the claim and thus fails to teach it." *Id.* (citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354 (Fed. Cir. 2001)).

Patent Owner asserts Petitioner "fundamentally misunderstand[s] the teachings of Blunt." PO Resp. 12. Patent Owner challenges Petitioner's motivation for adding packaging (taught by Fontana) to avoid unravelling and/or to protect the cable during storage because "storage" in Blunt refers to storage space 16, which is inside Blunt's tote, and Blunt already solved


the problem of unravelling of cable coil within storage space 16 with its frangible sheet. *Id.* at 12–13 (citing Ex. 1004 ¶¶ 70, 87, Fig. 2). According to Patent Owner, one of ordinary skill in the art “would not be motivated to replace the coil in Blunt with the coil in Fontana because the problem was purportedly already solved with [a] frangible sheet applied to the cable *after* it was inserted on the reel.” *Id.* at 13. Patent Owner asserts that, “[o]nce that problem is solved, a [person of ordinary skill in the art] would have no need to look to Fontana.” *Id.* Patent Owner contends “[e]ven if a [person of ordinary skill in the art] could have added the plastic wrap of Fontana to the frangible sheet of Blunt, [Petitioner] never demonstrated why a [person of ordinary skill in the art] would have done so.” *Id.*

Patent Owner also responds to Petitioner’s reliance on Chadwick, cited as Exhibit 1012, for the notion that a POSITA would have substituted Fontana’s coil 15 to protect the cable from atmospheric corrosion or damage during transportation and storage. Patent Owner contends that “Chadwick relates to wrapping aluminum or steel coils to protect them from corrosion damage during storing and transportation” and “does not relate to cable, and neither Blunt nor Fontana discuss any issues with storage, corrosion, or transportation.” PO Resp. 14 (citing Ex. 1012, 1:10–12). Thus, Patent Owner asserts “Chadwick does not support [Petitioner’s] conclusory statement that it was known in the art to protect cable coils during transportation and storage with prepackaging.” *Id.*

Additionally, Patent Owner elaborates on its position that the combination proposed by Petitioner would have been inoperable and thus teaches away from the claimed system. PO Resp. 14. Patent Owner asserts

[REDACTED]


“Fontana requires the user to remove the prepackaging of the pre-wound reel-less coil of cable before placing the cable coil on the reel. . . . When the prepackaging is removed, the cable expands from its pre-wound state.” *Id.* (citing Ex. 1005, 4:38–39, Fig. 6). Patent Owner contends, “[i]n the context of Blunt or Brochure, where the coil is then placed on a reel in a bag or other container, such expansion renders the combination inoperable, as the coil will not fit in the container.” *Id.* Patent Owner relies on a statement by a representative of Cox Communications from the panel discussion video of Exhibit 2015, where it was stated “you can’t unwrap [the cable coil] before you put it in the bag. You have to put it in the bag and then unwrap it or otherwise it won’t work.” *Id.* at 14–15 (quoting Ex. 2015, part two at 15:20; Ex. 2016, part two at 6) (alteration in original).

Further, Patent Owner also asserts Dr. Eldering’s testimony is “due no weight” because “it is nearly identical to the petition, offering the same word-for-word conclusory opinions.” PO Resp. 12 (citations omitted).

4. *Petitioner’s Reply*

Petitioner asserts Patent Owner does not dispute that Fontana discloses a prepackaged reel-less cable. Pet. Reply 5. Rather, Petitioner characterizes Patent Owner’s arguments as raising two theories as to why one of ordinary skill in the art would not have been motivated to combine Brochure and Blunt with Fontana, both of which Petitioner asserts “are unfounded.” *Id.*

First, Petitioner explains that Patent Owner’s argument is based on “an erroneous characterization of Petitioner’s combination” because Petitioner is not proposing to add packaging after a coil is placed on a reel.


Pet. Reply 5–6. Petitioner points to the following explanation of the combination from the Petition:

It would have been obvious for a [person of ordinary skill in the art] **to substitute the supply of cable of Brochure’s cable reel as modified with Blunt for the equivalent cable coil 15 of Fontana** so that the supply of cable in Brochure’s modified cable reel would be replenished when it is exhausted.

Id. at 6 (quoting Pet. 97) (citing Ex. 1002 ¶ 168). In other words, Petitioner asserts it “relied on Fontana’s disclosure of a prepackaged reel-less cable coil. Nowhere does either the Petition, or Dr. Eldering’s declaration, state that Blunt’s frangible sheet is added after the plastic wrap of Fontana is removed as alleged by [Patent Owner].” *Id.* (citing PO Resp. 12–13). Petitioner contends Patent Owner provides “**no** evidence” that one of ordinary skill in the art would not have made the substitution actually proposed in Petitioner’s combination. *Id.* (citing PO Resp. 11–14).

Additionally, Petitioner asserts Chadwick “explicitly explains applying its wrap to cable ‘to protect the material against corrosion and other damage during transportation and storage.’” Pet. Reply 7 (quoting Ex. 1012, 1:6–12) (citing Ex. 1012, 1:22–26).

Second, Petitioner asserts Patent Owner’s argument of inoperability “centers on the same erroneous characterization of Petitioner’s combination and contradicts the actual teachings of the prior art.” Pet. Reply 7 (citing PO Resp. 14–15). Petitioner contends that, when Fontana’s packaging is removed, the cable coil does not expand because it is also bound by clamps that are removed after the cable is placed within the container. *Id.* (citing

Ex. 1005, 3:25–28, Fig. 6). Petitioner also points to Dr. Eldering’s testimony in support. *Id.* at 7–8 (citing Ex. 2001, 95:12–22, 96:1–9).

Third, Petitioner contests Patent Owner’s characterization of Dr. Eldering’s testimony, asserting that Dr. Eldering provides “both reasoned explanation of Petitioner’s combinations **and** additional supporting evidence.” Pet. Reply 9–10 (citing *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential)).

5. *Patent Owner’s Sur-reply*

Patent Owner contends Petitioner’s only support for motivation to combine is “a single paragraph in Dr. Eldering’s Declaration.” PO Sur-reply 7 (citing Pet. Reply 6 (citing Ex. 1002 ¶ 169)). Patent Owner asserts Petitioner “continues to ignore [Patent Owner’s] evidence that the ‘storage’ in Blunt is *the container*, and not generic storage apart from the payout system.” *Id.* at 7–8 (citing Ex. 1004, code (57), ¶ 70; PO Resp. 12–13). Patent Owner contends “Blunt already solved the disclosed problem of unravelling of the cable coil within storage space 16 (on a reel) with its frangible sheet.” *Id.* at 8 (citing Ex. 1004 ¶ 87). Thus, Patent Owner argues one of ordinary skill in the art “would not be motivated to replace the coil in Blunt³⁰ with the coil in Fontana because the problem was purportedly

³⁰ As discussed further below, Petitioner’s combination does not replace the coil of *Blunt* (nor does it rely on Blunt’s coil); rather, the combination proposes replacement of *Brochure*’s supply of cable with the cable coil of Fontana. Pet. 86 (“to substitute the supply of cable of Brochure’s cable reel . . . for the equivalent cable coil 15 of Fontana”).

[REDACTED]


already solved with the frangible sheet applied to the cable after it was inserted on the reel.” *Id.* (footnote added).

Additionally, Patent Owner asserts “Petitioner provides no evidence that a [person of ordinary skill in the art] *would have* made the proposed substitution.” PO Sur-reply 8 (citing *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015)). Patent Owner contends Dr. Eldering’s Declaration only proposes two reasons to make Petitioner’s substitution— (1) to avoid unravelling and/or (2) to protect the cable from atmospheric corrosion or damage during transportation and storage. *Id.* (citing Ex. 1002 ¶ 169) (quotations omitted). Patent Owner asserts “both of these problems . . . are contemplated and solved by the system in Blunt providing the ‘storage space’ container that houses a cable on a reel.” *Id.* at 8–9. Thus, Patent Owner contends one of ordinary skill in the art “would not be motivated to look elsewhere to solve already solved problems.” *Id.* at 9 (citing *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1369 (Fed. Cir. 2012); *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1334 (Fed. Cir. 2013)).

Further, Patent Owner provides a comparison of the relevant portion of the Petition and Dr. Eldering’s Declaration to show that they are nearly identical and therefore Dr. Eldering’s testimony should be entitled to little, if any, weight. PO Sur-reply 9–11.


6. *Analysis*

First, we find that Petitioner’s combination of Brochure, Blunt, and Fontana teaches the subject matter of claims 1–12 and 14–22 for the reasons explained by Petitioner, which reasons we adopt as our own findings. *See*




Pet. 85–86 (discussing, *inter alia*, the elements of the claims for which Petitioner relies on Fontana). In so doing, we recognize that Patent Owner fails to contest that the elements of the claims challenged under this Ground are taught by the combination of Brochure, Blunt, and Fontana and therefore waives any argument that the claims are not met by the combination. *See* PO Resp. 8–15; Paper 8 (Scheduling Order), 9–10 (“**Patent Owner is cautioned that any arguments for patentability not raised in the response may be deemed waived.**”).

Second, we find Petitioner establishes that one of ordinary skill in the art would have been motivated to substitute cable coil 15 of Fontana (including Fontana’s prepackaging) for the equivalent supply of cable taught by Brochure and would have had a reasonable expectation of success in so doing. Petitioner provides a reason with rational underpinning as to why one of ordinary skill in the art would have been motivated to substitute Fontana’s cable coil for *Brochure’s* cable coil—to protect the cable from corrosion or damage during transportation and storage. Pet. 85–86. Petitioner’s reasoning is supported by Dr. Eldering’s testimony (which we discuss further below) and Chadwick’s teaching that it was known to use a “flexible film material” to envelop (or wrap) a coil of cable “to protect the material against corrosion and other damage during transportation and storage.” *See* Ex. 1002 ¶ 169 (“*to protect the cable from atmospheric corrosion or damage during transportation and storage, which is conventional and known in the prior art*” (emphasis added)); Ex. 1012, 1:6–12 (“This invention relates to a method and apparatus *for enveloping a coil of a continuous flexible material, such as cable, line, wire, wire cable, metal*


strip, hosing, chain and the like *in a flexible film material to form a parcel for delivery to a user of the material so as to protect the material against corrosion and other damage during transportation and storage.*” (emphases added)). In other words, we find that one of ordinary skill in the art would have been motivated to substitute Fontana’s cable coil, which includes a packaging thin film (as shown in Fontana), for the cable coil of Brochure to protect the cable coil from corrosion and other damage during transportation and storage—transportation and storage of the cable coil itself (not transportation and storage of the cable coil *and* container/bag).³¹

Patent Owner’s arguments appear to reflect at least two points of confusion by Patent Owner regarding the proposed combination. First, Petitioner does not rely on Blunt’s frangible sheet in the combination proposed for Ground 3. Rather, Petitioner relies on Fontana’s cable coil and packaging thin film. Pet. 84 (“These elements are also rendered obvious in view of Fontana.”). Patent Owner’s arguments regarding impermissible hindsight, teaching away, and lack of motivation are based on this misconception. Specifically, Patent Owner treats the combination as though

³¹ The storage referred to here is not storing the cable coil in the storage space 16 of Blunt as argued by Patent Owner. Petitioner’s combination relies on using Brochure’s container, not Blunt’s container. Patent Owner’s argument in this regard is not responsive at least to Petitioner’s rationale that we find persuasive above. Thus, Patent Owner’s focus on whether Blunt already teaches a mechanism to protect the cable coil and prevent unravelling (i.e., by placing the cable coil *into* Blunt’s storage space 16 in the container) is inapposite because the rationale on which we focus above is based on what happens *prior to* placing the cable coil in a container, specifically Brochure’s container/bag.


everything Petitioner proposed from its combination of Ground 1 (which includes Blunt’s frangible sheet for claim 7) *also* was included in the combination of Ground 3. *See* PO Resp. 11–12 (arguing impermissible hindsight), 12 (arguing teaching away), 12–13 (arguing Blunt already solves the problem addressed by Petitioner’s combination), 13 (arguing lack of motivation). That is not correct. In the combination of Ground 3, Petitioner relies on Fontana to teach cable coil that is “reel-less” and “pre-wound” as well as the recitation of “prepackaged” in claim 7. *See* Pet. 85–86 (discussing Petitioner’s reliance on Fontana in Ground 3). Thus, each argument by Patent Owner pertaining to use of Blunt’s frangible sheet in the combination of Ground 3 is inapposite because Petitioner does not rely on Blunt’s frangible sheet. And, to be clear, Patent Owner has not identified anything in Brochure or Blunt that would lead one of ordinary skill in the art away from substituting Fontana’s cable coil as proposed by Petitioner, nor does Petitioner rely on impermissible hindsight as each element is taught in the prior art and Petitioner provides a reason with rational underpinning for the proposed substitution (with a reasonable expectation of success).

The second point of confusion by Patent Owner is that Patent Owner’s arguments appear to overlook that Petitioner’s substitution is of *Brochure’s* cable coil, not Blunt’s cable coil. Pet. 86 (“It would have been obvious for a [person of ordinary skill in the art] *to substitute the supply of cable of Brochure’s cable reel as modified with Blunt for the equivalent cable coil 15 of Fontana* so that the supply of cable in Brochure’s modified cable reel would be replenished when it is exhausted.” (emphases added)). This is important because Patent Owner focuses on potential solutions taught by

[REDACTED]


Blunt for storing cable coil, but Patent Owner does not argue that those potential solutions (even assuming they are solutions that address the same issues) are taught by Brochure, which is where the substitution proposed by Petitioner occurs. In this combination, Blunt's contribution to the combination is with regard to the *reel*. See Pet. 26 (contending it would have been obvious "to modify Brochure's cable reel with Blunt's reel structure or substitute Brochure's cable reel with Blunt's reel 34"). Blunt's *reel* does not negate the rationale proposed by Petitioner nor present a solution that addresses the reasoning provided by Petitioner as to why one of ordinary skill in the art would have substituted the elements as proposed.

Turning to Dr. Eldering's testimony, we disagree with Patent Owner's argument that his testimony is entitled to little or no weight. The critical inquiry in weighing expert testimony is whether the testimony discloses the underlying facts or data on which the opinion is based. 37 C.F.R. § 42.65(a) (2021). In *Xerox*, the Board held that the proffered expert testimony was entitled to little weight because "the cited declaration testimony is conclusory and unsupported [and] adds little to the conclusory assertion for which it is offered to support." IPR2022-00624, Paper 9 at 15. *Xerox* does not stand for the proposition that little weight is given to expert testimony when a petition repeats expert testimony that is not conclusory and is supported. See generally *id.* Here, unlike in *Xerox*, Dr. Eldering's testimony is neither conclusory nor unsupported. Specifically, his testimony offers his opinion that one of ordinary skill in the art would have been motivated to use packaging to protect a cable coil during transportation and storage and he specifically cites to and relies on Chadwick for support.

Ex. 1002 ¶ 169. As reflected in our discussion above, Chadwick provides direct support for Dr. Eldering’s testimony as Chadwick expressly teaches the benefits of doing the same thing proposed by Petitioner and Dr. Eldering—wrapping a coil of cable in a flexible film material or packaging to protect the cable coil during transportation and storage. Thus, *Xerox* is clearly distinguishable from the facts presented here. And, for the same reasons, we credit Dr. Eldering’s testimony regarding the motivation for the combination and reasonable expectation of success.

We also disagree with Patent Owner’s argument that the combination would be inoperable because once Fontana’s packaging is removed, the cable coil would expand beyond the size of the bag shown in Brochure and therefore would not be able to be inserted onto the modified reel. Even accepting Patent Owner’s position that as soon as any packaging is removed, the cable coil would expand beyond the size of the bag and thus not fit in the bag,³² Petitioner and Dr. Eldering point to Fontana’s use of clamps that hold

³² The only alleged support offered by Patent Owner is a citation to Exhibits 2015 and 2016 based on a statement by a representative of Cox Communications. *See* PO Resp. 14–15 (citing Ex. 2015, part two at 15:20; Ex. 2016, part two at 6). But, as Patent Owner itself argues in its Sur-reply (in response to Petitioner’s citation to the exhibits in support of an argument made in its Reply regarding Ground 1), “[t]hese exhibits present a video made years after the priority date of the ’342 Patent, and do not comment on how a [person of ordinary skill in the art] would read the disclosures of Blunt in 2015.” PO Sur-reply 7. In other words, Patent Owner argues that the video does not reflect the state of the art at the relevant time period. Thus, for the same reason argued by Patent Owner, we do not credit Patent Owner’s reliance on the video to support an argument as to whether one of ordinary skill in the art would have been motivated to combine the teachings of Brochure, Blunt, and Fontana at the relevant time period.


the cable coil in place until it is placed inside Fontana's container. Pet. Reply 7–9 (citing Ex. 1005, 3:25–28, Fig. 6; Ex. 2001, 95:13–22, 96:1–9; Ex. 1002 ¶ 169). In its Sur-reply, Patent Owner does not contest Petitioner's and Dr. Eldering's reliance on Fontana's clamps, or their position that one of ordinary skill in the art would have understood how to avoid the issue identified by Patent Owner by using clamps. According, we disagree with Patent Owner that Petitioner's proposed combination would have been inoperable.

“Once all relevant facts are found, the ultimate legal determination [of obviousness or nonobviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.” *Arctic Cat*, 876 F.3d at 1361. On balance, considering the complete record before us, Petitioner has established, by a preponderance of the evidence, that claims 1–12 and 14–22 of the '342 patent would have been obvious to one of ordinary skill in the art at the time of the invention.

In particular, Petitioner has established that the combination of Brochure, Blunt, and Fontana teaches or suggests the subject matter of claims 1–12 and 14–22. The proposed combination is not based on hindsight reconstruction; rather, it is straightforward and logical and based on the prior art. In particular, as discussed above, Petitioner establishes that one of ordinary skill in the art would have been motivated to modify Brochure's reel structure with Blunt's reel structure or substitute Blunt's reel for Brochure's reel with a reasonable expectation of success (for the same reasons discussed in our analysis of Ground 1) and additionally would have

[REDACTED]

been motivated to substitute Fontana's cable coil 15 for Brochure's supply of cable in the Brochure/Blunt combination and would have had a reasonable expectation of success in achieving the combination proposed.

Additionally, for the reasons explained, we disagree with Patent Owner's arguments regarding combining the teachings of Fontana with the Brochure/Blunt combination, and for the same reasons discussed regarding Ground 1 Patent Owner's evidence of objective indicia of nonobviousness carries very little weight. In our balancing of the evidence weighing in favor of and against obviousness, we consider the summation of the weight we attribute to each of the objective indicia identified by Patent Owner. *See Volvo*, 81 F.4th at 1215 (discussing the summation of the weight attributed to objective indicia evidence). Our weighing of this evidence assumes Patent Owner established some modicum of nexus to the Tech Service Bag as a whole as Patent Owner alleges in its Sur-reply.

Accordingly, on balance, considering the complete record before us, Petitioner's evidence of obviousness far outweighs Patent Owner's evidence of nonobviousness, even assuming Patent Owner established some degree of nexus. Therefore, we determine that Petitioner has established, by a preponderance of the evidence, that the combination of Brochure, Blunt, and Fontana would have rendered the subject matter of claims 1–12 and 14–22 of the '342 patent obvious to one of ordinary skill in the art before the effective filing date of the invention.

D. Ground 2: Obviousness over Brochure, Blunt, and Johanson & Ground 4: Obviousness over Brochure, Blunt, Johanson, and Fontana

Petitioner asserts the combination of Brochure, Blunt, and Johanson would have rendered the subject matter of claims 1–12 and 14–22 obvious and the combination of Brochure, Blunt, Johanson, and Fontana would have rendered the subject matter of claims 1–12 and 14–22 obvious to one of ordinary skill in the art before the effective filing date of the invention. Pet. 81–83 (Ground 2), 85–86 (Ground 4³³). Patent Owner contests Petitioner’s assertions. *See, e.g.*, PO Resp. 7–8 (Ground 2), 8–15 (Ground 4³⁴).

Because we have determined above that Petitioner has established the unpatentability of these same claims based on the combination of Brochure and Blunt (Ground 1) and the combination of Brochure, Blunt, and Fontana (Ground 3), we need not and do not reach these additional challenges by Petitioner based on the combinations of Brochure, Blunt, and Johanson (Ground 2), and Brochure, Blunt, Johanson, and Fontana (Ground 4).

IV. PETITIONER’S MOTION TO EXCLUDE

Petitioner filed a Motion to Exclude Exhibits 2015 and 2016 as lacking authentication and constituting inadmissible hearsay. Paper 36. Patent Owner opposes Petitioner’s Motion (Paper 37), and Petitioner filed a reply in support of its Motion (Paper 41). Exhibit 2015 is a video presentation titled “Zero Waste Challenges: The Lifecycle of Coax Cable,” which Patent Owner contends was presented at the SCTE-ISBE Cable-Tec

³³ Petitioner addresses Grounds 3 and 4 together. Pet. 85–86.

³⁴ Patent Owner addresses Grounds 3 and 4 together. PO Resp. 8–15.

[REDACTED]

Expo in October of 2020. PO Resp. vi. Exhibit 2016 is a transcript of the video of Exhibit 2015. *Id.*

We have considered the arguments presented in the briefs. In short, although Patent Owner could have (and should have) provided additional evidence of authenticity, we agree with Patent Owner that the video has sufficient indicia of authenticity for the reasons discussed by Patent Owner. *See Paper 36, 1–4.* We also note that the video is a panel discussion that includes a representative of Petitioner and Petitioner has not specifically contested the accuracy of the video or transcript despite the lack of additional evidence Patent Owner could have presented regarding authenticity.

Additionally, Patent Owner contends that the video and transcript are not hearsay because they are not being offered to prove the truth of the matters asserted as opposed to showing that the statements were made. Paper 36, 5. Patent Owner's argument applies directly to its use of the exhibits as support for its arguments regarding objective indicia, but less so to Patent Owner's arguments of inoperability in response to Petitioner's motivation to combine Brochure, Blunt, and Fontana in Ground 3 (in which Patent Owner appears to rely on a statement from those exhibits for the truth of the matter asserted—that if packaging were removed from a coil of cable before inserting the cable into a bag, the cable coil would expand to a point where it would no longer fit in the bag). Nonetheless, we have already explained the deficiencies of these exhibits as support for Patent Owner's arguments because the statements expressed in the exhibits were not made during the relevant time period and do not purport to reference the relevant

[REDACTED]

time period. In light of Patent Owner’s representation, that the exhibits are not presented to prove the truth of the matters asserted, we have treated the exhibits as such in our consideration of the issues above.

Therefore, we *deny* Petitioner’s Motion to Exclude.

V. PETITIONER’S MOTIONS TO SEAL

As discussed briefly above, Patent Owner filed a Corrected Unopposed Motion to File Documents Under Seal and for a Protective Order (Paper 21), which motion we granted and protective order we entered (Paper 24). The information sealed pertains to Patent Owner’s “highly confidential business and financial information, including units revenue and business strategy for [Patent Owner’s Tech Service Bag].” Paper 24, 3 (alteration in original). Thereafter, Petitioner filed two Motions to Seal, seeking to seal portions of its Reply and Exhibits 1051–1053 (Paper 25) and demonstrative exhibits (Paper 40) that include the same information subject to the Protective Order. Patent Owner did not oppose either of Petitioner’s Motions to Seal. For the same reasons set forth in our Order granting Patent Owner’s Unopposed Motion to Seal (Paper 24), which we do not repeat here, we similarly grant Petitioner’s Motions to Seal.

I. SUMMARY

For the reasons discussed above, Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–12 and 14–22 of the ’342 patent are unpatentable. Additionally, we *deny* Petitioner’s Motion to Exclude (Paper 36) and *grant* Petitioner’s Motions to Seal (Papers 25, 40).

Our conclusions regarding the Challenged Claims are summarized below:

Claims Challenged	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–12, 14–22	103	Brochure, Blunt	1–12, 14–22	
1–12, 14–22	103	Brochure, Blunt, Johanson ³⁵		
1–12, 14–22	103	Brochure, Blunt, Fontana	1–12, 14–22	
1–12, 14–22	103	Brochure, Blunt, Johanson, Fontana ³⁶		
Overall Outcome			1–12, 14–22	

II. ORDER

In consideration of the foregoing, it is:


ORDERED that claims 1–12 and 14–22 of U.S. Patent No. 10,988,342 B2 are determined to be unpatentable;

FURTHER ORDERED that Petitioner’s Motion to Exclude (Paper 36) is *denied*;

FURTHER ORDERED that Petitioner’s Motions to Seal (Papers 25, 40) are *granted*;

³⁵ For the reasons explained above, we do not reach this alternative ground because we determine that claims 1–12 and 14–22 are unpatentable based on Petitioner’s Ground 1.

³⁶ For the reasons explained above, we do not reach this alternative ground because we determine that claims 1–12 and 14–22 are unpatentable based on Petitioner’s Ground 3.



FURTHER ORDERED that the parties are to jointly file a redacted, public version of this Decision no later than two weeks following the entry of this Decision; and

FURTHER ORDERED that, because this a Final Written Decision, parties to this proceeding seeking judicial review of this Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.


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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on this 20th day of December, 2023, a true and correct copy of the foregoing **Redacted Final Written Decision** was served by electronic mail on Petitioner's lead and backup counsel at the following email addresses:

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