

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PPC BROADBAND, INC.,
Petitioner,

v.

TIMES FIBER COMMUNICATIONS, INC.,
Patent Owner.

IPR2022-01087
Patent 10,941,016 B2

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

GERSTENBLITH, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background

PPC Broadband, Inc. (“Petitioner”) filed a Petition (Paper 3, “Pet.”) requesting institution of *inter partes* review of claims 1–8 and 10–19 (“the Challenged Claims”) of U.S. Patent No. 10,941,016 B2 (Ex. 1001, “the ’016 patent”). Times Fiber Communications, Inc. (“Patent Owner”) did not file a Preliminary Response. *See, e.g.*, 37 C.F.R. § 42.107(a)–(b) (a patent owner *may* file a preliminary response no later than 3 months after a notice granting a filing date to a petition); Paper 6 (Notice of Filing Date Accorded to Petition), 1 (indicating the same).

An *inter partes* review may be instituted only if “the information presented in the petition . . . and any [preliminary] response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a) (2018). For the reasons below, Petitioner has established a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the Challenged Claims. Accordingly, we institute an *inter partes* review of the Challenged Claims on all grounds raised in the Petition.

B. Related Proceedings

The parties identify *Times Fiber Communications, Inc. v. PPC Broadband, Inc.*, No. 1:21-cv-01823-UNA (D. Del.), as a related matter. Pet. 100; Paper 5 (Patent Owner’s Mandatory Notices), 1. Patent Owner states that there are five other *inter partes* review proceedings challenging patents related to the ’016 patent. Paper 5, 1. They are IPR2022-00830 (U.S. Patent No. 10,913,632 B2, in which institution was denied after Patent Owner disclaimed all challenged claims); IPR2022-00831 (U.S. Patent

No. 10,589,957 B2, in which institution was denied after Patent Owner disclaimed all challenged claims); IPR2022-00946 (U.S. Patent No. 10,988,342 B2, which was recently instituted); IPR2022-00947 (U.S. Patent No. 11,001,471 B2, which was recently instituted); and IPR2022-01088 (U.S. Patent No. 10,906,771 B2, which is being instituted concurrently with this proceeding). *See id.*

C. Real Parties in Interest

Petitioner identifies PPC Broadband, Inc. and Belden Inc. as real parties in interest. Pet. 100. Patent Owner identifies only itself as a real party in interest. Paper 5, 1.

D. The Asserted Grounds of Unpatentability and Declaration Evidence

Petitioner challenges the patentability of claims 1–8 and 10–19 of the ’016 patent on the following grounds:

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
1–8, 10–19	103	Brochure, ² Blunt ³

¹ The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. The ’016 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 post-AIA version of § 103.

² Perfect Tote™ 500 Eco Brochure, PPC (Ex. 1006, “Brochure”). 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. 1006, 1007, 1009, 1010, 1016, 1018–1038).

³ U.S. Patent Application Publication No. 2012/0168554 A1, published July 5, 2012 (Ex. 1004, “Blunt”).

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
1–8, 10–19	103	Brochure, Blunt, Johanson ⁴
1–6, 8, 14, 15	103	Brochure, Blunt, Fontana ⁵
1–6, 8, 14, 15	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 Banick (Ex. 1039).

E. The '016 Patent

The '016 patent is directed to a cable reel apparatus that allows for easy installation of cable. *See* Ex. 1001, Abs., 1:26–27. Figure 1 of the '016 patent is reproduced below.

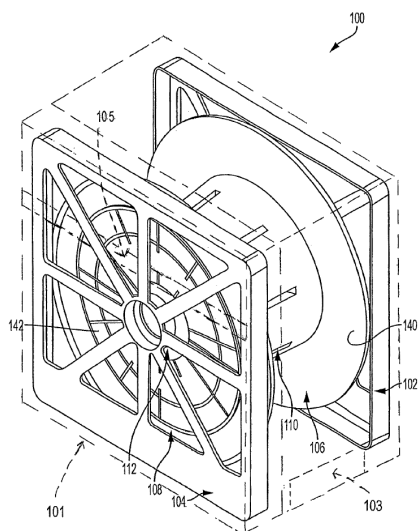


Figure 1 is a perspective view of cable reel 100, “shown with a supporting bag or box.” *Id.* at 7:31–33. Cable reel 100 “generally includes opposing

⁴ U.S. Patent No. 7,938,357 B2, issued May 10, 2011 (Ex. 1013, “Johanson”).

⁵ U.S. Patent No. 6,145,780, issued Nov. 14, 2000 (Ex. 1005, “Fontana”).

support frames 102 and 104 that rotatably support first and second flanges 106 and 108 with a hub member 110 therebetween on which the cable is held.” *Id.* at 8:49–52.

Figures 2 and 6 of the ’016 patent are reproduced below.

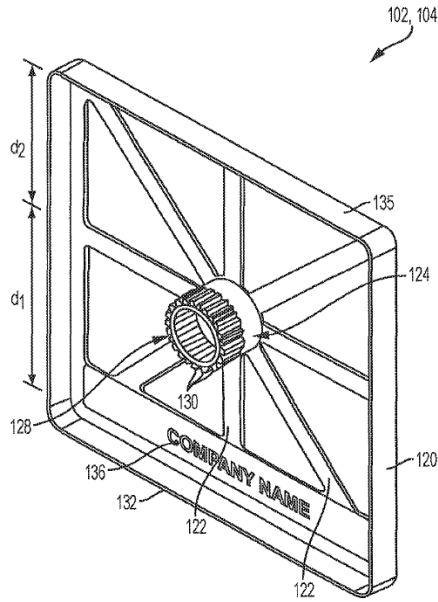


FIG. 2

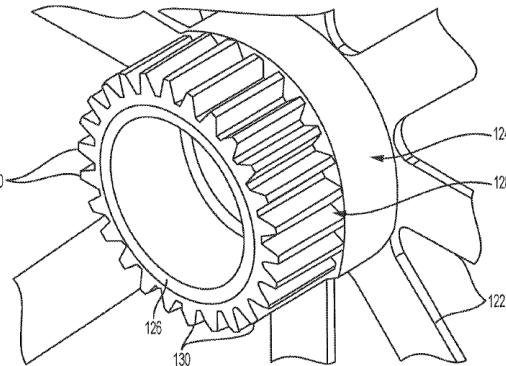


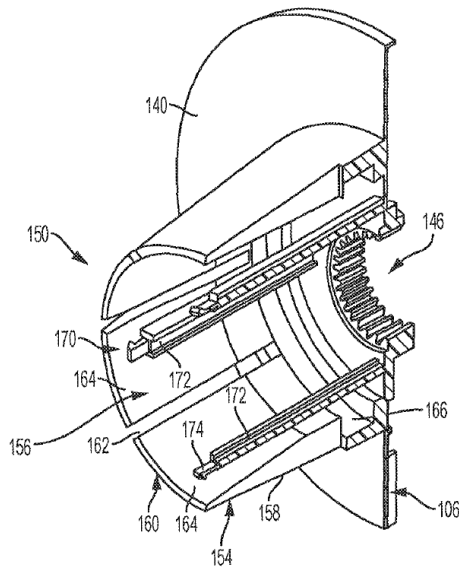
FIG. 6

Figure 2 “is a perspective view of a support frame of the cable reel” shown in Figure 1 (Ex. 1001, 7:34–35), and Figure 6 “is an enlarged partial perspective view of the frame illustrated in FIG. 2, showing outer gears of the frame” (*id.* at 7:47–48). The ’016 patent explains that each support frame 102 and 104 includes outer frame portion 120 with one or more cross members 122 and middle flange support 124. *Id.* at 8:60–62. “The middle flange support 124 includes an annular extension 126 (FIG. 6) that supports a first part of the braking mechanism 112,” which in turn is used to “prevent overpayout of the cable.” *Id.* at 8:64–66, 10:11–16.

Each flange 106 and 108 is preferably sized to fit within the outer frame portion 120 of its respective support frame 102 and 104, and each is

sized to accommodate the cable, such as a cable coil. Ex. 1001, 9:13–16. Each flange has inner and outer surfaces 140 and 142 and central arbor opening 144 (shown in Figure 3). *Id.* at 9:19–20. Central arbor opening 144 corresponds to the middle flange support 124 of each respective support frame. *Id.* at 9:24–25.

Figures 4B and 5B of the '016 patent are reproduced below.



the flange inner surface 140.” Ex. 1001, 9:57–61. The ends of snap arms 172 preferably include snap tabs 174 that engage corresponding slots 176 in second flange 108 (as shown in Figure 5B). *Id.* at 9:64–67. The ’016 patent states that “[a]lthough a snapping engagement is preferred to secure the hub portions 150 and 152 together, any known interlocking mechanism may be used.” *Id.* at 9:67–10:2. Additionally, second hub portion 152 includes truncated wall 180 that extends from inner surface 140 of second flange 108. *Id.* at 10:3–5. The ’016 patent explains that “truncated wall 180 has a tapered outer surface 182 that fits inside of the elongated wall 154 of the first hub portion 150 to form a friction fit between the hub portions 150 and 152 and expands the flexible segments 164 of the first hub portion 150.” *Id.* at 10:5–10. First hub portion 150 and second hub portion 152 may be decoupled and separated from each other, to install cable coil C, which may be “prepacked,” on first hub portion 150, and then recoupled together to form a complete reel. *See id.* at 10:33–45.

Cable reel 100 “may be carried in a conventional shoulder bag or satchel, a cardboard or plastic box 101, and the like, with an opening 103 for easy payout of cable supported on the cable reel.” Ex. 1001, 8:35–39. In one embodiment, “first support frame 102 of the reel 100 is secured to the base of the bag or box, such as by straps, such as via strap 105 (FIG. 1), and the second support frame 104 is secured to the cover or flap of the bag.” *Id.* at 10:46–50. As the ’016 patent explains,

[w]ith the cable coil installed on the hub member 110, the cable coil is inserted into the bag or box between the support frames 102 and 104 The assembly of the hub portions 150 and 152, the flanges 106 and 108, and the cable coil is preferably inserted into the base of the bag on its side such that the middle flange support 124 of the frame secured to the base

of the bag fits inside of the central arbor opening 144 of the flange. Similarly, the middle flange support 124 of the frame secured to the cover of the bag fits inside of the opening 144 of the other flange when the bag is closed. Once the frames 102 and 104 are mated with the flanges 106 and 108, respectively, the operator can then dispense or payout the cable through a cable payout slot or opening in the bag or box. The operator may open the cover of the bag or box to separate the hub portions 150 and 152 by disengaging the snap tabs 174.

Id. at 10:50–65.

F. Illustrative Claim

Claims 1, 7, 14, and 16 are the independent claims challenged in this proceeding. Claim 1 is illustrative of the claimed subject matter and is reproduced below with Petitioner's bracketing added for reference:

1. [pre] A cable reel apparatus, comprising:
 - [a] a cable reel for holding a pre-wound, reel-less coil of cable, the cable reel including,
 - [b] a central longitudinal axis,
 - [c] a first flange configured to be rotatably coupled to a first frame, the first flange being smaller than an outer frame portion of the first frame, the first flange having opposite inner and outer sides, and the inner side of the first flange having an elongated wall extending transversely therefrom along the central longitudinal axis of the cable reel, and
 - [d] a second flange separate from the first flange that is configured to be rotatably coupled to a second frame, the second flange being smaller than an outer frame portion of the second frame, the second flange having opposite inner and outer sides, and the inner side of the second flange having a truncated wall extending transversely therefrom along the central longitudinal axis of the cable reel;

[e] wherein the elongated wall and the truncated wall are configured to be releasably coupled to one another for supporting the pre-wound, reel-less coil of cable between the first and second flanges and are configured to be decoupled from one another when replacing the coil of cable once dispensed from the cable reel apparatus,

[f] wherein the coil of cable has an inner diameter, and the elongated and truncated walls are sized to be received in the inner diameter when supporting the coil of cable,

[g] wherein the first frame and the second frame are disposed on inner surfaces of a bag that has a payout opening for dispensing cable of the coil of cable,

[h] wherein the bag is configured such that the second flange is removable from the elongated wall of the first flange allowing the coil of cable to be loaded on and unloaded from the elongated wall, and

[i] wherein the first frame is positioned in a base of the bag and the second frame is positioned at a cover of the bag, such that when the cover of the bag is closed with respect to the base of the bag, the second frame releasably couples with the second flange and such that when the cover of the bag is opened with respect to the base of the bag, the second frame decouples from the second flange.

Ex. 1001, 11:42–12:18; *see* Pet. Claims App. 1–2.

G. Level of Ordinary Skill in the Art

Petitioner, supported by Dr. Eldering’s testimony, proposes that a person of ordinary skill in the art at the time of the invention would have had “at least a bachelor’s degree in physics or engineering and experience with the installation of cable,” and that “[a]dditional education could substitute for professional experience and vice versa.” Pet. 4 (citing Ex. 1002 ¶ 15).

At this stage of the proceeding and on the current record, we find that Petitioner’s proposal is consistent with the level of ordinary skill in the art

reflected by the '016 patent and the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978). Therefore, we adopt it in our consideration of the issues presently before us.

II. CLAIM CONSTRUCTION

In this *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b) (2021). The claim construction standard includes construing claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art at the time of the invention. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). In construing claims in accordance with their ordinary and customary meaning, we take into account the specification and prosecution history. *Phillips*, 415 F.3d at 1315–17.

Additionally, only terms that are in controversy need to be construed, and these need be construed only to the extent necessary to resolve the controversy. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Petitioner contends that other than element 14[c], “no other terms need construction and the plain meaning can be applied.” Pet. 4 (citing Ex. 1002 ¶¶ 39–42). Regarding element 14[c] (“means for releasably coupling . . . the first hub portion and the second hub portion to form a hub

member that supports a pre-wound reel-less coil of cable between the first and second flanges, and decoupling the first hub portion and the second hub portion from one another when replacing the coil of cable once dispensed from the cable reel apparatus”), Petitioner asserts that “[t]his limitation is presumptively a means-plus-function limitation.” *Id.* (citing *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348–49 (Fed. Cir. 2015) (en banc)). In particular, Petitioner contends that the claimed functions are “releasably coupling” and “decoupling” the elements recited in the above-quoted phrase. *Id.* at 4–5 (citing Ex. 1002 ¶ 41). Petitioner asserts that the structures provided in the Specification of the ’016 patent for performing this function are “an inner friction surface of first hub portion 150 and an outer friction surface of second hub portion 152 that couple via a friction fit.” *Id.* at 5 (citing Ex. 1001, Figs. 4A, 5B, 6:15–18, 10:3–10; Ex. 1002 ¶ 42). Additionally, Petitioner contends, “[t]his limitation also encompasses equivalents of this structure.” *Id.* (citing 35 U.S.C. § 112(f)).⁶

On the present record at this stage of the proceeding, we need not construe element 14[c] expressly because the meaning of the phrase is not in dispute. *See Realtime Data*, 912 F.3d at 1375.

⁶ Petitioner also asserts that during prosecution of the ’016 patent, the Examiner interpreted this limitation under 35 U.S.C. § 112(f) and that Patent Owner “acquiesced to the Examiner’s mapping” of the limitation to structure shown in the prior art at issue before the Examiner. Pet. 5 (citing Ex. 1003, 54, 60–61, 67).

III. ANALYSIS

A. *Legal Standards – Obviousness*

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.*, 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. Kohler Co.*, 829 F.3d 1317, 1327 (Fed. Cir. 2016) (citations omitted).

“[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 over Brochure and Blunt

Petitioner asserts that the combination of Brochure and Blunt would have rendered the subject matter of claims 1–8 and 10–19 obvious to one of ordinary skill in the art at the time of the invention. Pet. 17–92.

1. Level of Ordinary Skill in the Art

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

2. Scope and Content of the Prior Art

a. Brochure

Brochure is a one-page document describing the features and use of the “Perfect Tote™ 500 Eco” cable tote made by Petitioner. *See* Ex. 1006; Pet. 1, 9 (identifying Petitioner as “PPC” and describing Brochure as “PPC’s” brochure). Two photographs from Brochure are reproduced below.



The first photograph (left) shows a “500 ft plastic cable reel,” and the second photograph (right) shows the cable reel placed within a rectangular-shaped “bag” having an opened “side panel,” with the free end of the cable

extending through an “[o]pening for smooth cable payout” from the bag. Ex. 1006. The second photograph additionally shows a frame element disposed on the underside of the bag’s side panel, with a “frame hub” disposed at the central part of the frame. *Id.* (“How to use” step 2).

Brochure 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: “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. Blunt

Blunt provides a “System for Storing a Bulk Supply of Cable for Controlled Payout.” Ex. 1004, code (54). Blunt’s Figure 11 is reproduced below.

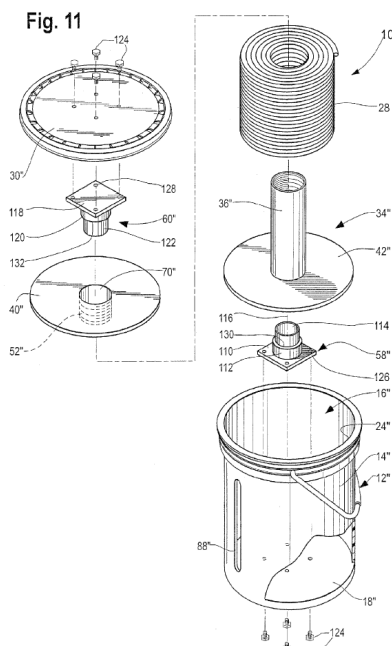


Figure 11 is an exploded, perspective view of system 10" for storing a wrapped supply of cable 28. *See id.* ¶¶ 67, 70, 92. System 10" includes

reel 34" composed of core 36" and two flanges 40" and 42" for holding cable 28. *See id.* ¶¶ 71–72, 96–97. Reel 34" is rotatably mounted between two guide components 58" and 60" within enclosed space 16" formed by container 12" and lid 30", to facilitate controlled payout of cable 28 through opening 88" of container 12". *See id.* ¶¶ 70, 75–76, 82, 92–97.

3. *Differences Between the Prior Art and the Claims;
Motivation to Modify*

Petitioner sets forth a detailed analysis showing how the combined teachings of Brochure and Blunt meet the elements of claims 1–8 and 10–19. Pet. 17–92. Petitioner asserts that “*Brochure* depicts the *Tote* bag 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 ¶ 44). Petitioner relies on Blunt as “disclos[ing] a cable reel compatible with the *Tote* bag with a reel structure that allows for replenishing the cable supply” and, thus, the combination of Brochure with Blunt’s reel or reel structure would have rendered the Challenged Claims obvious. *Id.* (citing Ex. 1002 ¶¶ 44–63).

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 *Tote* bag when it is exhausted in an environmentally friendly way.” Pet. 26 (citing Ex. 1002 ¶¶ 58–63; 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 27 (citing Ex. 1002 ¶ 60).

We have reviewed Petitioner’s detailed arguments challenging claims 1–8 and 10–19 and the evidence on which Petitioner relies (*see* Pet. 17–92), and we find, on the preliminary record before us, that Petitioner has shown sufficiently that the combination of Brochure and Blunt satisfies the elements of claims 1–8 and 10–19, and that one of ordinary skill in the art would have been motivated to combine the teachings as proposed by Petitioner with a reasonable expectation of success.

4. *Objective Considerations of Nonobviousness*

Neither party presents evidence of objective considerations of nonobviousness at this stage of the proceeding.

5. *Weighing the Graham Factors*

“Once all relevant facts are found, the ultimate legal determination [of obviousness] 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 record presently before us, Petitioner has established a reasonable likelihood that it would prevail in showing that the combination of Brochure and Blunt would have rendered the subject matter of claims 1–8 and 10–19 of the ’016 patent obvious to one of ordinary skill in the art at the time of the invention.

C. *Grounds 2–4*

Petitioner raises three additional challenges under § 103: (1) the combination of Brochure, Blunt, and Johanson; (2) the combination of Brochure, Blunt, and Fontana; and (3) the combination of Brochure, Blunt, Johanson, and Fontana. Pet. 2, 92–98.

Because we have determined above that, at this stage of the proceeding and on the present record, the information presented in the Petition shows that there is a reasonable likelihood that Petitioner will prevail with respect to its challenge based on Brochure and Blunt (Ground 1) we need not address, in this Decision, Petitioner's additional challenges. *See* 35 U.S.C. § 314(a); *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“Section 314(a) does not require the Director to evaluate every claim individually. Instead, it simply requires him to decide whether the petitioner is likely to succeed on ‘at least 1’ claim. Once that single claim threshold is satisfied, it doesn’t matter whether the petitioner is likely to prevail on any *additional* claims; the Director need not even consider any other claim before instituting review.”).

IV. CONCLUSION

For the foregoing reasons, Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that at least one claim of the ’016 patent is unpatentable. Our analysis is based on the preliminary record developed thus far and may change after the record is developed fully, during trial.

V. ORDER

Accordingly, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is instituted as to claims 1–8 and 10–19 of the ’016 patent on each ground set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the ’016 patent shall commence

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on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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