

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GEP POWER PRODUCTS, INC.,  
Petitioner,

v.

ARCTIC CAT INC.,  
Patent Owner.

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Case IPR2016-01385  
Patent 7,072,188 B2

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Before MICHAEL R. ZECHER, JENNIFER S. BISK, and  
JESSICA C. KAISER, *Administrative Patent Judges*.

KAISER, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*Inter Partes* Review  
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

## I. INTRODUCTION

GEP Power Products, Inc. (“Petitioner”) filed a Petition pursuant to 35 U.S.C. §§ 311–19 requesting an *inter partes* review of claims 1–23 of U.S. Patent No 7,072,188 B2, issued on July 4, 2006 (Ex. 1001, “the ’188 patent”). Paper 1 (“Petition” or “Pet.”). Arctic Cat Inc. (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we granted Petitioner’s request and instituted an *inter partes* review of all challenged claims. Paper 11, 24.

Following institution, Patent Owner filed a Response to the Petition (Paper 13, “PO Resp.”), and Petitioner filed a Reply (Paper 16, “Pet. Reply”). In addition, Petitioner filed a Motion to Exclude Evidence. Paper 20 (“Mot. to Exclude”). Patent Owner filed an Opposition to the Motion to Exclude (Paper 21), and Petitioner filed a Reply in Support of its Motion to Exclude (Paper 23). A final oral hearing was held on September 27, 2017. A transcript of that hearing has been entered in the record. Paper 26 (“Hr’g Tr.”).

For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that all challenged claims of the ’188 patent are unpatentable.

## II. BACKGROUND

### A. *The ’188 Patent (Ex. 1001)*

The ’188 patent is titled “Power Distribution Module for Personal Recreational Vehicle.” The Abstract describes the subject matter as follows:

A power distribution module for a personal recreational vehicle includes a housing and a cover. The housing defines an interior and includes a wall having an array of receptacle openings. The receptacle openings are adapted to receive and secure electrical components inside the housing. A distribution harness includes a plurality of electrical conductors and is coupled to the housing wherein the electrical conductors are in electrical communication with the electrical components inside the housing. The power distribution module can optionally include a decal to assist quick and accurate placement of the electrical components during the manufacturing process. A method for producing a personal recreational vehicle having a standardized housing over a range of models. The housing includes a component arrangement guide for locating and installing electrical components.

Ex. 1001, Abstract.

The '188 patent states that “[a]ll personal recreational vehicles include some type of power distribution system for routing and control of power and signals throughout the vehicle.” *Id.* at 1:44–46. According to the '188 patent, however, different types of components (e.g., fuses, diodes, and relays) must be housed in different locations. *Id.* at 1:46–50. The '188 patent also notes that standardization of components within and across a product line can reduce manufacturing costs. *Id.* at 1:38–43. Thus, the '188 patent states that “it is desirable to devise a means by which the power distribution module can be easily standardized for manufacturing,” and “to have a power distribution module that includes components other than fuses.” *Id.* at 1:51–55.

*B. Illustrative Claim*

Claims 1, 11, and 19 are independent claims. Claim 1 is illustrative of the claims at issue and is reproduced below (with some paragraphing added):

1. A power distribution module for a personal recreational vehicle comprising:
  - a housing defining an interior, including a component attachment portion and a cover,
    - the cover comprising a first surface substantially surrounding the perimeter thereof, the first surface conforming to a first edge surrounding the perimeter of the component attachment portion,
    - the component attachment portion comprising a fastener secured thereto proximate the first edge thereof, the fastener selectively securing the component attachment portion to the cover having the first surface of the cover in engagement with the first edge of the component attachment portion,
    - the housing further including a plurality of receptacle openings in a wall in the component attachment portion, wherein the receptacle openings are spaced-apart in rows and columns of openings, the spacing between the rows and the spacing between the columns being substantially the same for receiving and securing at least one electrical component within the housing across multiple rows or across multiple columns of openings; and
    - a distribution harness having a plurality of electrical conductors, wherein the electrical conductors electrically cooperate with the receptacle openings to connect to the at least one electrical component, wherein the conductors are adapted to distribute power.

*Id.* at 7:5–30.

### *C. Related Proceedings*

Petitioner and Patent Owner identify a related litigation in the District of Minnesota involving the '188 patent titled: *Arctic Cat Inc. v. Polaris Industries Inc.*, No. 0:16-cv-00008-WMW-HB (D. Minn.). Pet. 1; Paper 6, 2. Petitioner indicates that it “supplies a power distribution module to [the defendant in that suit] that Patent Owner has accused of infringing the ‘188 patent.” Pet. 1.

*D. Level of Skill in the Art*

Petitioner contends that “a person having ordinary skill in the art would have at least a bachelor of science degree in mechanical engineering with at least two to five years of work experience relating to designing electrical control system components.” Pet. 19. Patent Owner does not address this definition of the person of ordinary skill in the art in its Patent Owner Response. *See generally* PO Resp. Patent Owner’s expert, Ralph Wilhelm, Jr. Ph.D., testifies that a person of ordinary skill in the art could have a bachelor’s degree in either electrical or mechanical engineering with the same amount of experience proposed by Petitioner. Ex. 2001 ¶ 8. Because this definition of the level of skill in the art is consistent with the ’188 patent and the asserted prior art, we agree with Patent Owner and determine a person of ordinary skill in the art would have at least a bachelor of science degree in mechanical engineering or electrical engineering with at least two to five years of work experience relating to designing electrical control system components. Thus, we adopt Patent Owner’s definition and apply it to our evaluation below, but note that our conclusions would remain the same under Petitioner’s definition.

*E. References and Other Evidence*

We instituted trial based on the following references:

1. “Boyd” (U.S. Patent No. 6,850,421 B2; filed April 1, 2002; issued Feb. 1, 2005) (Ex. 1002);
2. “Svette” (U.S. Patent No. 5,354,211; issued Oct. 11, 1994) (Ex. 1005); and
3. “Caveney” (U.S. Patent No. 3,660,869; issued May 9, 1972) (Ex. 1006).

In addition, Petitioner submitted an expert declaration from Mr. Lawrence R. Happ (Ex. 1007, “Happ Decl.”).

Patent Owner relies on an expert declaration of Ralph Wilhelm, Jr. Ph.D. (Ex. 2001, “Wilhelm Decl.”), and declarations of Darrel Janisch (the named inventor of the ’188 patent), Del Christianson, and Kenneth Kalsnes (Ex. 2002; Ex. 2003; Ex. 2034 respectively) all filed with its Patent Owner Response. Patent Owner also filed a Second Declaration of Darrel Janisch (Ex. 2036) in support of its Opposition to the Motion to Exclude. Excerpts from the deposition transcripts for Darrel Janisch (Ex. 1009) and Ralph Wilhelm, Jr. Ph.D. (Ex. 1010) have also been filed.

*F. Grounds Asserted*

Trial was instituted on the following grounds:

<b>Reference(s)</b>	<b>Basis</b>	<b>Claims</b>
Boyd	35 U.S.C. § 102(e) <sup>1</sup>	1–6, 11, 19, 22, and 23
Boyd, Svette, and Caveney	35 U.S.C. § 103(a)	12–18
Svette	35 U.S.C. § 103(a)	1–12 and 19–23

### III. ANALYSIS

*A. Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the

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<sup>1</sup> The Leahy–Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103. Because the ’188 patent has an effective filing date before the effective date of the applicable AIA amendments, we refer to the pre–AIA versions of 35 U.S.C. §§ 102 and 103.

specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, claim terms are generally given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art, in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In our Institution Decision, we determined that the “distribution harness” as recited in the challenged claims does not encompass the wires (i.e., the recited “conductor cables”) standing alone, but that further construction of that term was not necessary at that stage of the proceeding. Paper 11, 5–7. We also determined that the preambles of independent claims 1, 11, and 19 are not limiting. *Id.* at 7–8.

In its Patent Owner Response, Patent Owner again raises these two claim construction issues. PO Resp. 4–10. Beyond the two issues raised by Patent Owner, we determine explicit construction of any other term is not necessary to resolve the issues before us. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017); *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

1. “distribution harness”

Patent Owner contends the recited “distribution harness” is more than a bundle of wires and should be construed as an “apparatus that holds wires together.” PO Resp. 4. In support, Patent Owner relies on the claim language, which recites “a distribution harness having a plurality of electrical conductor cables,” and the ’188 specification. *Id.* at 4–6. Patent

Owner also relies on the testimony of its expert, Dr. Wilhelm. *Id.* at 6 (citing Ex. 2001 ¶ 17).

Petitioner contends that the recited “distribution harness” encompasses a bundle of wires for which an additional apparatus is not required. Pet. Reply 18–19. In support, Petitioner relies on a statement in the ’188 specification that “[t]he distribution harness 260 includes a plurality of electrical conductors 262, which **optionally** can be housed within a sheath 269 to keep the conductors 262 in a bundle.” *Id.* at 19 (quoting Ex. 1001, 5:13–15). Petitioner also states that the parties’ constructions of this term may be a “distinction without a difference” because Patent Owner’s expert admitted that structures for securing wires were known at the time of the ’188 invention and a person of ordinary skill in the art would have understood benefits of using a wire harness. *Id.* at 19–21 (citing Ex. 1010, 50:19–51:7, 59:4–24).

We determine that Patent Owner’s proposed construction is consistent with our preliminary construction that a “distribution harness” does not encompass the wires standing alone, whereas Petitioner’s proposed construction is not. As Patent Owner notes, independent claim 1 recites “a distribution harness having a plurality of electrical conductors.” Ex. 1001, 7:26–27. Independent claims 11 and 19 recite a similar limitation. *Id.* at 8:8–9, 8:66–67. Although the specification notes that “[t]he distribution harness 260 includes a plurality of electrical conductors 262, which *optionally* can be housed within a sheath 269 to keep the conductors 262 in a bundle” (Ex. 1001, 5:13–15 (emphasis added)), we agree with Patent Owner that construing the “distribution harness” as encompassing the wires (i.e., the



recited “conductor cables”) standing alone would render the term “distribution harness” superfluous.

Moreover, the ’188 specification is consistent with Patent Owner’s construction. Petitioner relies on the statement discussed above in the ’188 specification that “[t]he distribution harness 260 includes a plurality of electrical conductors 262, which *optionally* can be housed within a sheath 269 to keep the conductors 262 in a bundle” in support of its proposed construction of a “distribution harness” as a “bundle of wires.” Pet. Reply 19 (quoting Ex. 1001, 5:13–15). We note, however, that even without sheath 269, the wires in Figure 3 remain held together by other apparatuses (e.g., cable ties 264, 266, and 268). Ex. 1001, Fig. 3, 5:26–40. At the oral hearing, Petitioner’s counsel contended that twisting the wires together with no separate apparatus would be a “distribution harness,” but did not provide any further support in the record for such a position. Hr’g Tr. 63:9–64:11. We find no support in the record for twisted wires standing alone being a “distribution harness.”

For the reasons discussed above, we determine Patent Owner’s proposed construction of “distribution harness” is consistent with our preliminary construction and with the intrinsic evidence. Accordingly, we construe the recited “distribution harness” as an apparatus that holds wires (i.e., the recited “conductor cables”) together.

## 2. Claim Preambles

The preambles of independent claims 1 and 11 each recite “[a] power distribution module for a personal recreational vehicle.” Ex. 1001, 7:5–6, 60–61. The preamble of claim 19 recites “[a] power distribution module.” *Id.* at 8:53. Patent Owner contends the preambles of independent claims 1,

11, and 19 are limiting for the following reasons: “(1) the specification consistently describes the invention of the ‘188 patent as a PDM [power distribution module] for a vehicle; (2) a [person of ordinary skill in the art] would understand the preambles as limiting in view of the specification; and (3) Petitioner treats the preambles as limiting.” PO Resp. 6. In particular, Patent Owner contends “[t]he preambles recite limitations and give life, meaning and vitality to the claims, and so should be read as limiting.” *Id.* at 7. In support, Patent Owner cites portions of the specification that mention a “personal recreational vehicle.” *Id.* at 7–9 (providing numerous citations to Ex. 1001). Patent Owner also contends Petitioner treats the claim preambles as limiting “by mapping the preambles to alleged prior art.” *Id.* at 9. Patent Owner further relies on Dr. Wilhelm’s testimony that “a person of ordinary skill in the art would give meaning to the ‘vehicle’ terms in the preambles in view of the specification.” *Id.* at 9–10 (citing Ex. 2001 ¶ 22).

Petitioner contends the claim preambles are not limiting and that Dr. Wilhelm’s testimony does not support otherwise. Pet. Reply 22–23. We agree with Petitioner.

“[A] preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Catalina Marketing Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002). In addition, “preambles describing the use of an invention generally do not limit the claims because the patentability of apparatus or composition claims depends on the claimed structure, not on the use or purpose of that structure.” *Id.*

As an initial matter, Patent Owner's counsel conceded at the oral hearing that independent claim 19 does not recite a personal recreational vehicle, and Patent Owner does not seek to read that limitation into claim 19. Hr'g Tr. 55:4–56:9. We agree and find that claim 19 does not recite a personal recreational vehicle, and we do not read any such limitation into that claim.

We also determined in our institution decision that the claim bodies of claims 1, 11, and 19 describe structurally complete inventions. Paper 11, 8. We are not persuaded to disturb that determination here. In particular, those claims recite limitations including, *inter alia*, a housing with a component attachment portion and a cover, a plurality of receptacles in the component attachment portion, and a distribution harness having a plurality of electrical conductors that electrically cooperate with the receptacles to connect to at least one electrical component. The bodies of those claims do not recite a personal recreational vehicle. Thus, we determine the claim body of each independent claim “describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *See Catalina*, 289 F.3d at 809. In addition, we determine that “for a personal recreational vehicle” in the preambles of claims 1 and 11 recites only an intended use for the otherwise complete claimed apparatus.

We further find that Dr. Wilhelm's testimony is entitled to little weight in addressing this issue. Dr. Wilhelm testified that a person of ordinary skill in the art “would give meaning to the ‘vehicle’ terms in the preambles since the specification consistently describes the invention in the context of a recreational vehicle with a PDM or as a PDM for a recreational

vehicle.” Ex. 2001 ¶ 22. We find that whether a person of ordinary skill in the art would *give meaning* to terms in a preamble is not the proper inquiry to determine whether those terms in a preamble *limit* the scope of the claim. Mr. Wilhelm agreed at his deposition that “for a personal recreation vehicle” in the preambles of claims 1 and 11 reflected an intended use. Ex. 1010, 34:5–15. Mr. Wilhelm also conceded he had not addressed in his declaration whether those claims recite structurally complete inventions. *Id.* at 36:17–25.

We are also not persuaded that we should alter our preliminary determination on this issue based on Petitioner’s alleged treatment of the claim preambles as limiting “by mapping the preambles to alleged prior art,” as Patent Owner contends. PO Resp. 9. We agree with Patent Owner that Petitioner has the burden of persuasion to establish unpatentability (*id.*), but we do not view Petitioner’s treatment of the preambles in its analysis of its unpatentability grounds as a binding admission that those preambles are limiting.

Finally, we disagree with Patent Owner that the axiom that different words in a claim have different meanings requires us to find the preambles of claims 1 and 11 are limiting (*id.* at 10). Specifically, although we agree with Patent Owner that not all of the claim preambles recite a “vehicle” limitation (*id.*), the fact that the patent drafter chose to include an intended use in some claims and not others does not convert that intended use into a claim limitation.

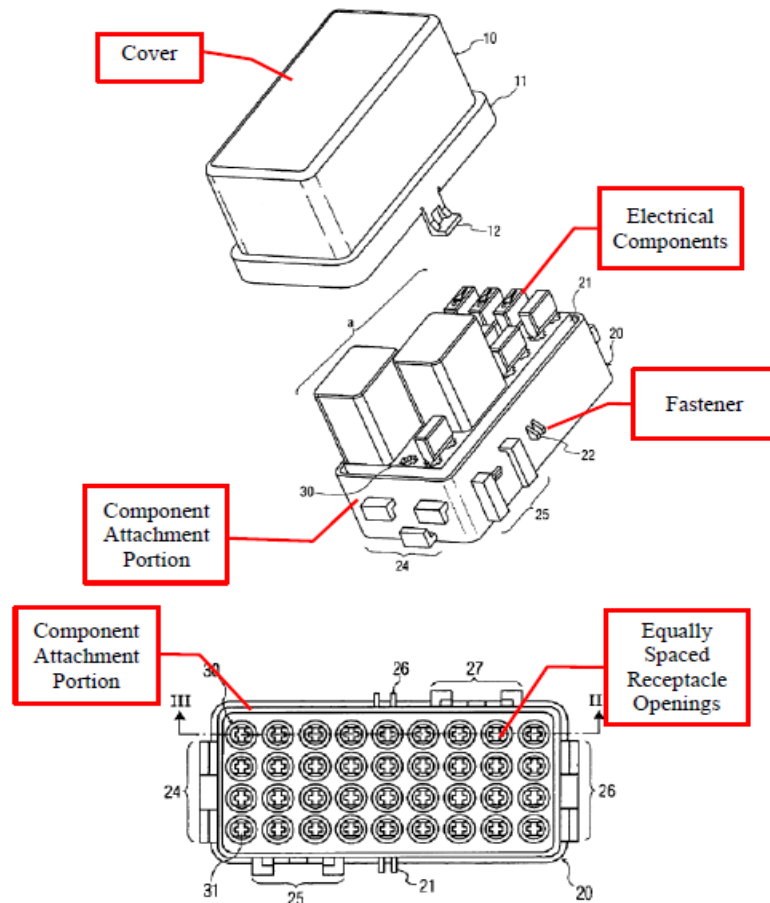
For the reasons discussed above, we conclude that the preambles of claims 1, 11, and 19 are not limiting.

*B. Asserted Anticipation by Boyd*

*1. Overview of Boyd*

Boyd is titled “Fuse Relay Box Apparatus, Methods and Articles of Manufacture,” and the application leading to Boyd was filed on April 1, 2002. Ex. 1002, at [54], [22]. Petitioner contends Boyd is prior art under 35 U.S.C. § 102(e). Pet. 13.

Boyd discloses a “fuse relay box” with a cover and base, where the base includes “a number of channels adapted for use by either a fuse or relay.” Ex. 1002, Abstract. Figures 1 and 2 of Boyd as annotated by Petitioner (Pet. 14) are reproduced below.



Annotated Figure 1 of Boyd depicts a preferred embodiment of Boyd's fuse relay box with electrical components installed therein. Ex. 1002, 2:65–66. Annotated Figure 2 of Boyd depicts the underside of base 20 with a matrix of channels 30. *Id.* at 3:51–55.

## 2. Status of Boyd as Prior Art

Petitioner has the burden of persuasion to prove unpatentability by a preponderance of the evidence, and that burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Petitioner also has the burden to show that a reference is prior art to certain claims under a relevant section of 35 U.S.C. § 102. *Id.* Here, it is undisputed that Boyd has a filing date of April 1, 2002, and '188 patent has a filing date of October 29, 2002. Ex. 1001, at [22]; Ex. 1002, at [22]; Pet. 12–13; PO Resp. 11. In addition, Petitioner acknowledges that the Examiner issued rejections over Boyd during the prosecution of the '188 patent. Pet. 5, 8. In response to those rejections, Patent Owner submitted two declarations from the named inventor of the '188 patent, Darrel Janisch, under 37 C.F.R. § 1.131, allegedly swearing behind Boyd. Ex. 1008, July 22, 2004 Janisch Decl., and Feb. 28, 2006 Janisch Decl. In the Petition, Petitioner alleged that these declarations are insufficient. Pet. 11–13. We determine that Petitioner met its initial burden by alleging Boyd is prior art under 35 U.S.C. § 102(e) and calling into question the sufficiency of Mr. Janisch's declarations.

Following institution, Patent Owner contends that Boyd is not prior art because (1) Patent Owner can antedate Boyd and (2) Boyd was not created “by another” under 35 U.S.C. § 102(e). PO Resp. 11–46. We address each of these contentions below.

*a. Antedating Boyd*

Patent Owner contends Boyd is not prior art because it can antedate Boyd. PO Resp. 11–29. After Petitioner met its initial burden to show Boyd is prior art, as discussed above, the burden of production shifts to Patent Owner to argue or produce evidence that the asserted reference is not prior art. *Dynamic Drinkware*, 800 F.3d at 1380. If Patent Owner meets that burden of production, the burden shifts back to Petitioner. *Id.* We emphasize that the ultimate burden of establishing unpatentability always remains with Petitioner.

To antedate, Patent Owner contends Darrel Janisch, the named inventor of the '188 patent, conceived of the inventions claimed in the '188 patent prior to Boyd's filing date (PO Resp. 12–24) and that Mr. Janisch was diligent in reducing these inventions to practice through the constructive reduction to practice date (*id.* at 24–29). We have reviewed both parties' arguments and evidence, and we determine, viewing the record as a whole, that the evidence supports a determination that Patent Owner has not antedated Boyd.

An inventor may swear behind a reference if he was the first to conceive of an invention, and then connects the conception of his invention with its reduction to practice by reasonable diligence on his part, such that conception and diligence are substantially one continuous act. *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996). A party alleging diligence must account for the entire critical period. *Griffith v. Kanamaru*, 816 F.2d 624, 626 (Fed. Cir. 1987); *Gould v. Schawlow*, 363 F.2d 908, 919 (CCPA 1966). While “[a] patent owner need not prove the inventor *continuously* exercised reasonable diligence throughout the critical period[,]”

it must show there was *reasonably continuous* diligence.” *Perfect Surgical Techniques, Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1009 (Fed. Cir. 2016) (citing *Tyco Healthcare Grp. v. Ethicon Endo-Surgery, Inc.*, 774 F.3d 968, 975 (Fed. Cir. 2014); *Monsanto Co. v. Mycogen Plant Sci., Inc.*, 261 F.3d 1356, 1370 (Fed. Cir. 2001)). For reasonably continuous diligence, an inventor is not required to work on reducing his invention to practice every day during the critical period, and periods of inactivity are not automatically fatal to a patent owner’s claim of reasonable diligence. *Id.* The Federal Circuit has also counseled that the point of this analysis is not to scour patent owner’s corroborating evidence to identify gaps in activity, but rather to view the evidence as a whole to assure that the invention was not abandoned or unreasonably delayed. *Id.*

A party alleging diligence, however, must provide corroboration with evidence that is specific both as to facts and dates. *Gould*, 363 F.2d at 920; *Kendall v. Searles*, 173 F.2d 986, 993 (CCPA 1949). A “rule of reason” analysis is applied to determine whether the inventor’s testimony has been corroborated, and under such an analysis, “[a]n evaluation of *all* pertinent evidence must be made so that a sound determination of the credibility of the inventor’s story may be reached.” *Price v. Symsek*, 988 F.2d 1187, 1195 (Fed. Cir. 1993). The rule of reason, however, does not dispense with the need for corroboration of diligence that is specific as to dates and facts. *Gould*, 363 F.2d at 920; *Kendall*, 173 F.2d at 993; *see Coleman v. Dines*, 754 F.2d 353, 360 (Fed. Cir. 1985).

Patent Owner provides a declaration from Mr. Janisch that addresses both conception and diligence in reducing the inventions covered by the claims of the ’188 patent to practice. Ex. 2002. Mr. Janisch testifies that he



conceived of the PDM described and claimed in the '188 patent at least as early as April 1, 2002. During the relevant time period, Mr. Janisch was an employee at Arctic Cat, and he testifies that Arctic Cat contracted with Tyco Electronics, Inc. to manufacture the PDM according to his designs. *Id.* ¶ 11. For conception, Mr. Janisch provides a table that correlates some of the claim limitations to statements in Patent Owner's exhibits. *Id.* ¶ 13. Mr. Janisch further contends that the PDM was diligently reduced to practice from just before April 1, 2002 until October 29, 2002, the constructive reduction to practice of his inventions. *Id.* ¶¶ 15, 16. He testifies that he, and others at Arctic Cat, directed Tyco to diligently reduce the PDM to practice. *Id.* ¶ 17. Mr. Janisch provides a table showing activities for date ranges covering the entire critical period. *Id.* ¶ 19.

Patent Owner also provides declarations from two Arctic Cat employees, Mr. Christianson and Mr. Kalsnes. Regarding diligence, Mr. Christianson testifies:

I worked with Darrel [Janisch] and his team from just before April 1, 2002 through October 29, 2002. During that time, I observed Darrel and his team diligently work on the PDM and use Tyco to make and test prototypes and various components. I participated in shop discussions, saw technical drawings, and was involved in testing for Darrel's PDM prototypes during that time.

Ex. 2003 ¶ 14. Mr. Kalsnes' testimony does not mention Tyco. *See* Ex. 2034. He testifies that: "I worked with Darrel [Janisch] and his team from before April 1, 2002 through October 29, 2002. I observed Darrel and his team diligently work on the PDM during that time. I participated in discussions and meetings and reviewed layouts regarding the PDM." *Id.* ¶ 9. Patent Owner further submits a number of documents that it alleges

corroborate Mr. Janisch's conception and diligence to reduction to practice. *See* Exs. 2004–2033.

We determine Patent Owner's evidence is insufficient to show reasonably continuous diligence throughout the entire critical period. In particular, Mr. Janisch's declaration purports to show continuous diligence during the critical period in the table in paragraph 19 (Exhibit 2002). However, each row in that table refers to a date range and generally describes documents that bookend the date range, without sufficiently detailed explanation of events occurring between the bookend communications.

For example, for the period of April 1, 2002 to April 29, 2002, Mr. Janisch cites documents dated April 1 (Ex. 2013), April 2 (Ex. 2014), and April 29 (Ex. 2015). In Exhibit 2013 (April 1), Mr. Janisch sends Tyco approval for a PDM specification and test proposal dated March 15, 2002. The record does not include that specification and proposal, but Mr. Janisch testifies "that further testing was conducted." Ex. 2002 ¶ 19. Exhibit 2014 reflects a drawing dated April 2, 2002, which Mr. Janisch testifies shows an embodiment "that was being developed at that time," but other than further testing, Mr. Janisch does not identify any development activities that were occurring. In Exhibit 2015 (April 29), Tyco sends Mr. Janisch results of "preliminary heat rise tests of Arctic Cat PDM, sealed unit, STL sample." Mr. Janisch testifies that Exhibit 2015 shows that "Tyco had been diligently testing the PDM at my request, such as testing heat given off by the PDM." Ex. 2002 ¶ 19. Other than the above, Mr. Janisch testifies generally that he "continued to work on developing the PDM both internally and with Tyco." *Id.*; *see* Pet. Reply 6–7. Because Mr. Christianson's and Mr. Kalsnes'

testimony is not specific as to facts and dates, neither provides additional details on any activities occurring at Arctic Cat or Tyco from April 1 to April 29, 2002. *See* Ex. 2003, 2034.

As another example, Mr. Janisch includes rows in his table for August 16, 2002 to October 18, 2002; October 18, 2002 to October 29, 2002; and October 29, 2002. Ex. 2002 ¶ 19. In these rows, Mr. Janisch cites communications dated August 16, October 18, and October 28. *Id.*<sup>2</sup> In Exhibit 2021 (August 16), Mr. Janisch sends Tyco approval for product specifications and design objectives, and authorizes Tyco to proceed with testing. In Exhibit 2022 (October 18), Tyco provides Arctic Cat with a quotation for PDM bases and covers. In Exhibit 2023 (October 28), Tyco sends Mr. Janisch PDM drawing files. Constructive reduction to practice occurred on October 29, 2002, when the application leading to the '188 patent was filed. Ex. 1001, at [22]. Other than the facts in the three exhibits discussed above, Mr. Janisch testifies for this time period that “Tyco diligently performed testing on PDMs”; he “continued to integrate the PDM design into [Arctic Cat’s] vehicle harness designs . . . [which] included electrical wire routing to and from the PDM, and location and mounting of the PDM within various vehicle chassis”; and he “continued to test and develop the PDM.” Ex. 2002 ¶ 19; *see* Pet. Reply 10.

We highlight these two exemplary time periods, not to scour the record for gaps in activity, but rather to highlight the character of Patent

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<sup>2</sup> Patent Owner also cites to Exhibit 2033 as evidence of diligence during this time period. PO Resp. 25–26. Exhibit 2033, however, is dated September 25, 2001 (not 2002). Mr. Janisch’s declaration includes the correct date for this exhibit and relies on that document as evidence of conception, not diligence. *See* Ex. 2002 ¶ 13.

Owner's evidence. The critical period in this case spans 211 days (April 1, 2002 to October 29, 2002), and the two exemplary time periods above account for 102 days of the critical period, or almost half. During these two time periods, Patent Owner presents evidence that Tyco was performing testing on the PDM, but the record contains little evidence of what that testing entailed and no evidence of the amount of time any testing was expected to take. For example, the record does not include the PDM specification and test proposal or the PDM development timeline referenced in Exhibit 2013, the test results referenced in Exhibit 2015, or the product specifications and design objectives referenced in Exhibit 2021. We find that, in this case, the lack of explanatory documents coupled with the lack of testimony as to facts and dates leaves large periods during the critical period for which only generalized explanations are provided. In other words, Mr. Janisch's testimony summarizes the corroborative documents, but provides little additional information for the time periods between those documents. We also find the documents themselves provide insufficient information for us to infer what activities were occurring in the time periods between those documents (and whether such activities were expected to account for those time periods). As noted above, the testimony of the other two Arctic Cat employees is not sufficiently specific as to facts and dates to be helpful.

Thus, viewing the record as a whole and applying the rule of reason, we find not credible Mr. Janisch's testimony that there were no gaps in diligence during the critical period. We acknowledge that Mr. Janisch's testimony in Exhibit 2002 relates to events occurring approximately 15 years earlier. However, we note that Mr. Janisch submitted a declaration in 2004 during prosecution of the application leading to the '188 patent, only about

two years after the critical period, and Mr. Janisch did not include additional facts and dates in that declaration. Ex. 1008, July 22, 2004 Janisch Decl.

We also determine that Mr. Janisch's testimony fails to show his invention was not delayed unreasonably. As discussed in detail above, Mr. Janisch provides only general explanations of what activities occurred between the corroborative documents: e.g., "I continued to work on developing the PDM both internally and with Tyco," and "Tyco [or Tyco and Arctic Cat] continued to test and refine various aspects of the PDM at my request." Ex. 2002 ¶ 19. Declarations fail in their purpose when they merely make unsupported conclusory statements. *See In re Wright*, 999 F.2d 1557, 1563 (Fed. Cir. 1993); *In re Brandstadter*, 484 F.2d 1395, 1405 (CCPA 1973). Mr. Janisch's conclusory explanations, which lack specifics as to facts and dates, are insufficient to show the invention was not delayed unreasonably.

At the oral hearing, Patent Owner's counsel contended that the evidence discussed above met Patent Owner's burden of production, and that the burden of production then shifted back to Petitioner; Patent Owner's counsel further argued that Petitioner failed to meet that burden by not offering rebuttal evidence and instead "picking at the evidence of record." Hr'g Tr. 34:1–17. Even if we accept Patent Owner's contention that its evidence met its burden of production and the burden of production shifted to Petitioner, we determine that Petitioner met its burden by highlighting deficiencies in Patent Owner's evidence. *See* Pet. Reply 3–11. In particular, we find persuasive Petitioner's arguments that "Mr. Janisch's testimony that he 'continued to work on developing the PDM' . . . without offering any specific details as to what he was doing or any corroborating evidence, falls

far short of the evidence required to establish diligence.” Pet. Reply 7; *see id.* at 10. We disagree with Patent Owner that Petitioner was required to put in additional evidence to rebut Mr. Janisch’s testimony. Instead, we determine Petitioner has met its burden to show Boyd is prior art by relying on Boyd itself and showing that Patent Owner’s evidence is insufficient to establish reasonably continuous diligence throughout the entire critical period.

Viewing the record as a whole, and applying the rule of reason, we find the evidence does not show reasonably continuous diligence throughout the entire critical period. Thus, we determine Patent Owner has not antedated Boyd.

*b. “By another” under 35 U.S.C. § 102(e)*

Patent Owner also contends Boyd is not prior art under 35 U.S.C. § 102(e) because it is not “by another.” PO Resp. 29–46. In particular, Patent Owner contends the portions of Boyd on which Petitioner relies actually describe Janisch’s own work. *Id.* at 30.

35 U.S.C. § 102(e) states in relevant part: “A person shall be entitled to a patent unless — . . . (e) the invention was described in — . . . (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent.” The ’188 patent lists Darrel Janisch as the only named inventor, and Boyd lists Kenneth S. Boyd as the only named inventor. Ex. 1001, at [75]; Ex. 1002, at [75]; Pet. Reply 15–16. Thus, Boyd on its face is “by another” because the challenged patent and Boyd list different inventors.

Patent Owner contends we

‘must look beyond the superficial fact that the references were issued to different inventive entities. What is significant is not merely the differences in the listed inventors, but whether the portions of the reference relied on as prior art, and the subject matter of the claims in question, represent the work of a common inventive entity.’

PO Resp. 29 (quoting *Riverwood Int’l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1356 (Fed. Cir. 2003) (citing *In re DeBaun*, 687 F.2d 459, 462 (CCPA 1982))). Petitioner contends that the “by another” clause of § 102(e) is satisfied because “there is no overlap between the legal inventive entities of the two patents.” Pet. Reply 15–16. Petitioner further contends that Mr. Janisch might have a claim for correction of inventorship of the Boyd patent, but such a claim would “not affect the current legal status of the inventive entity of Boyd.” *Id.* at 16. We agree with Patent Owner that overlap in inventive entities is not required to find that a reference is not “by another” under § 102(e).

In *In re Mathews*, 408 F.2d 1393, 1393–94 (CCPA 1969), the court addressed the question of whether a rejection under 35 U.S.C. § 102(e) could be overcome by an affidavit from the inventor of the asserted prior art reference “averring that the relevant, unclaimed subject matter disclosed in his patent was not invented by the patentee[,] but was first disclosed to him by the appellant, particularly in light of certain acknowledgments in the patent and in the instant application.” There was no overlap in the inventive entity between the pending application (Mathews) and the asserted reference (Dewey). *Id.* at 1393. The court, however, found that Mathews had presented sufficient evidence to show that the relevant disclosure in Dewey was a disclosure of Mathews’ invention. *Id.* at 1396. In particular, Mathews provided an affidavit from Dewey, Mathews’ co-worker, averring that

Dewey did not invent the description of Mathews' invention in Dewey's application, that Mathews disclosed that device to Dewey, that Dewey did not know of that device prior to Mathews' disclosure to him, that the disclosure was included in Dewey's application only to comply with the requirements of 35 U.S.C. § 112, and that Dewey had not claimed the description of Mathews' invention. *Id.* at 1394. The court found that this affidavit along with statements in both Mathews' application and Dewey were sufficient to show that the relied-upon disclosure in Dewey actually disclosed Mathews' own invention. *Id.* at 1394–96.

Neither party addresses *Mathews* in its papers. However, we determine that case supports Patent Owner's position that there need not be overlap in inventorship for us to consider whether portions of a reference are actually "by another" as required by § 102(e).

Nevertheless, we determine the evidence presented in this case supports that Boyd qualifies as "by another" under 35 U.S.C. § 102(e). As discussed above, the '188 patent lists Darrel Janisch as the only named inventor, and Boyd lists Kenneth S. Boyd as the only named inventor. Ex. 1001, at [75]; Ex. 1002, at [75]. Because "the inventors named on the issued patent are presumed to be correct," *Shum v. Intel Corp.*, 633 F.3d 1067, 1083 (Fed. Cir. 2010), Boyd's listing of only Boyd is itself evidence that patent is "by another."

To determine that the relied-upon portions of Boyd<sup>3</sup> are not "by another," the evidence must show that those portions of Boyd are in fact

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<sup>3</sup> Petitioner relies on the following disclosures in Boyd for its anticipation ground: Figures 1–4 and 6, 2:7–14, 2:66–3:3, 3:52–54, 3:61–4:14, 4:19–21, and 4:41–60. Pet. 23–27.



Janisch's invention and *not Boyd's*. See *Mathews*, 408 F.2d at 1036 (finding the record showed that "Dewey derived his knowledge from Mathews who is 'the original, first, and sole inventor'"). The record here does not include sufficient evidence to make such a finding. Patent Owner's contentions focus on Mr. Janisch's inventions covered by the '188 patent and his communications to Boyd and others at Tyco. See PO Resp. 30–46. Patent Owner's contentions that Boyd did not himself know about the disclosures in his patent prior to Janisch's disclosures are limited to its contentions that: (1) "Darrel Janisch invented the claimed PDM because he could not find what he wanted in the market, including at Tyco" (*id.* at 30); (2) "Tyco recognized Arctic Cat's ownership of Janisch's design" (*id.*); and (3) "[s]ince Tyco was manufacturing the PDM for Arctic Cat, Boyd and others at Tyco necessarily received full details of Janisch's PDM design, and the evidence of record establishes that those details formed the basis for the Boyd patent" (*id.* at 32). We find the evidence of record does not support these contentions.

First, to support that "Darrel Janisch invented the claimed PDM because he could not find what he wanted in the market, including at Tyco" (*id.* at 30), Patent Owner cites Exhibit 2033 as showing Darrel Janisch stated on September 25, 2001: "No existing PDM has the content flexibility and that is why we have decided to design a completely new PDM, different than anything now available on the open market." However, at the oral hearing, Patent Owner's counsel agreed that there is no evidence in the record establishing the identity of the recipient of the email in Exhibit 2033 or to whom "we" refers in the statement quoted above. Hr'g Tr. 28:1–29:3. In addition, we find that the lack of availability of a product on the "open

market” provides little, if any, evidence about Mr. Boyd’s own knowledge, for example, of products not yet commercialized.

Patent Owner further cites Mr. Kalsnes’ testimony, but that testimony does not mention Tyco or Mr. Boyd. *See* Ex. 2034. Patent Owner also cites Mr. Christianson as testifying that “Arctic Cat approached Tyco[,] but they didn’t have anything like Janisch’s PDM.” PO Resp. 30 (citing Ex. 2003 ¶ 12). Mr. Christianson, however, does not so testify. Instead, he testified: “I observed group discussions at Arctic Cat about approaching Tyco Electronics (‘Tyco’) to see if they had anything like Darrel’s PDM, of if they could manufacture one. Arctic Cat had Tyco tool and manufacture the PDM for Arctic Cat based on Darrel’s designs.” Ex. 2003 ¶ 12. This testimony supports that Arctic Cat employees talked about approaching Tyco, but not the substance of any conversations between Tyco and Arctic Cat, including whether Tyco (and specifically Mr. Boyd) already had anything like Mr. Janisch’s designs before discussions with Mr. Janisch commenced.

We further find that Patent Owner’s contention that “Tyco recognized Arctic Cat’s ownership of Janisch’s design” (PO Resp. 30) is irrelevant to the issue of whether the relied-upon portions of Boyd are “by another.” In particular, Patent Owner cites Exhibits 2030 and 2032, which show that in 2003 and 2004 (after Boyd’s filing date), Tyco requested permission from Arctic Cat to sell a PDM to other non-competing customers. The cited correspondence provides only limited information about a commercial arrangement between the two firms after the relevant time period. We find that alleged commercial ownership of a product’s design after the relevant time period, without more, does not provide persuasive evidence of who invented that product in the first place.

Patent Owner contends that, “[s]ince Tyco was manufacturing the PDM for Arctic Cat, Boyd and others at Tyco necessarily received full details of Janisch’s PDM design, and the evidence of record establishes that those details formed the basis for the Boyd patent.” PO Resp. 32. We disagree because the record does not include evidence of what formed the basis of the Boyd patent. We note that the record does not include testimony from Mr. Boyd or anyone at Tyco. As support for its statement, Patent Owner relies on the similarity between Figure 9 of the ’188 patent, Figure 2 of Boyd, and a February 6, 2002 drawing made by Tyco (Ex. 2011) as “clearly show[ing] that the relevant features of the Boyd patent came from Janisch.” PO Resp. 33–35 (citing Ex. 2002 ¶¶ 31–32). We agree that the drawings have similarities, but disagree that such similarities necessarily show Janisch *and not Boyd* invented those features.

In sum, for the relied upon disclosures to not be “by another” under § 102(e), those disclosures must have the same inventive entity as the challenged patent, namely Janisch and only Janisch. We determine the preponderance of the evidence shows that the relied upon disclosures in Boyd are “by another” because the contrary evidence provided by Patent Owner addresses only what Janisch invented and communicated to Boyd and others at Tyco, but does not address persuasively whether Boyd was a prior or joint inventor of those disclosures.

In sum, we determine Petitioner has shown that Boyd is available as prior art under 35 U.S.C. § 102(e).

### 3. *Anticipation*

Petitioner contends that claims 1–6, 11, 19, 22, and 23 are anticipated by Boyd. Pet. 20–27. We have reviewed the information provided by

Petitioner, including the relevant portions of the supporting Happ Declaration (Ex. 1007), and are persuaded that Petitioner has demonstrated the unpatentability of these claims by a preponderance of the evidence.

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference.

*See Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). Although the elements must be arranged or combined in the same way as in the claim, “the reference need not satisfy an *ipsissimis verbis* test,” i.e., identity of terminology is not required. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009); *accord In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

Petitioner’s anticipation analysis, as supported by the Happ Declaration, demonstrates where each element of the challenged claims is disclosed in Boyd. Pet. 20–27. We agree with and adopt Petitioner’s analysis as our own. For example, Petitioner contends Boyd discloses a housing with a base 20 (which Petitioner asserts corresponds with the recited “component attachment portion”) and cover 10, as well as the recited features of the base and cover. *Id.* at 20–21 (citing Ex. 1002, Figs. 1, 4, 6, 4:47–60; Ex. 1007 ¶ 54). Petitioner further contends that Boyd teaches a plurality of receptacle openings (i.e., channels 30) that are spaced in rows and columns with the spacing between the rows and columns being substantially the same. *Id.* at 21 (citing Ex. 1002, Figs. 1, 2; Ex. 1007 ¶¶ 54–55). Petitioner also contends Boyd discloses the recited “distribution harness” because Boyd states that wires may be grouped together “by way of [a] harness.” *Id.* at 21–22 (citing Ex. 1002, 4:19–21, 41–46; Ex. 1007 ¶ 56).

Petitioner further provides a claim chart detailing where it contends each limitation of claims 1–6, 11, 19, 22, and 23 is disclosed in Boyd. *Id.* at 23–27. We have reviewed Petitioner’s evidence and argument, and find that Petitioner has shown Boyd discloses each limitation of the challenged claims.

In the Patent Owner Response, Patent Owner contends Boyd is not prior art. PO Resp. 10–46. For the reasons discussed above, we determine that Boyd qualifies as prior art, and do not find Patent Owner’s contentions persuasive. Patent Owner does not present further arguments regarding this unpatentability ground.

For the reasons discussed above, we determine Petitioner has shown by a preponderance of the evidence that claims 1–6, 11, 19, 22, and 23 are unpatentable based on anticipation by Boyd.

*C. Asserted Obviousness Over Boyd, Svette, and Caveney*

*1. Overview of Svette and Caveney*

Svette is titled “Alignment Overlay for Connector Housing Block” and issued on October 11, 1994. Ex. 1005, at [54], [45]. Svette “relates to an electrical connector assembly,” which has “a multi-cavity connector housing block, a plurality of electrical devices connected to terminals carried in the cavities of the housing block and an alignment overlay adhesively attached to the block to ensure that the electrical devices are properly oriented and attached to the proper terminals in the housing block.” *Id.* at 1:5–13. Figure 1 of Svette is reproduced below.

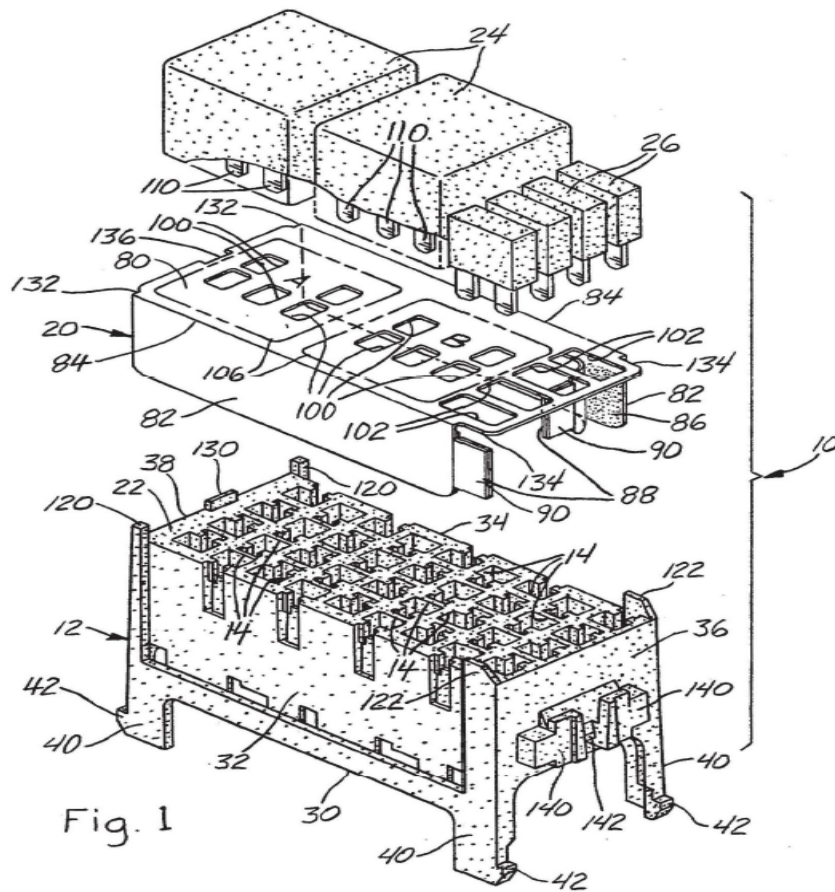


Figure 1 of Svette depicts electrical connector assembly 10, including connector housing 12, alignment overlay 20, and electrical devices 24 and 26. *Id.* at 2:12–23. The connector housing has a plurality of cavities 14 for receiving prongs 110 of the electrical devices. *Id.* at 2:12–23, 3:23–37.

Caveney is titled “One-Piece Cable Tie” and issued on May 9, 1972. Ex. 1006, at [54], [45]. Figure 11 of Caveney is reproduced below.

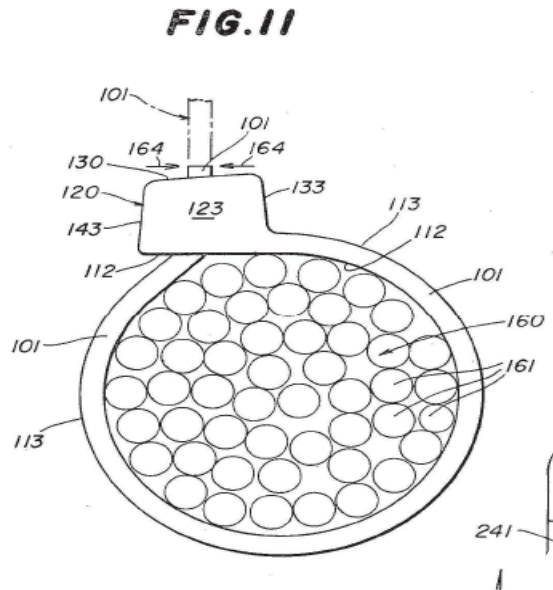


Figure 11 of Caveney depicts its cable tie holding together a bundle of wires. *Id.* at 2:49–50.

## 2. Obviousness

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in the record, objective evidence of nonobviousness.<sup>4</sup> *See Graham v. John Deere Co.*, 383 U.S. 1,

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<sup>4</sup> Neither party introduced objective evidence of non-obviousness or argued that the existence of secondary considerations affects this Decision's

17–18 (1966). In that regard, an obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418.

Petitioner contends that claims 12–18 would have been obvious over Boyd, Svette, and Caveney. Pet. 28–33. We agree with and adopt Petitioner’s analysis as our own. In particular, we have reviewed the information provided by Petitioner, including the relevant portions of the supporting Happ Declaration (Ex. 1007), and are persuaded that Petitioner has demonstrated the unpatentability of these claims by a preponderance of the evidence.

For example, claim 12 depends from claim 11 and recites specific details of the claimed fastener, including a “sleeve,” a “slot,” and a “tab.” Ex. 1001, 8:13–22. Petitioner contends that Svette teaches the recited aspects of the fastener. Pet. 28–29 (citing Ex. 1007 ¶¶ 62–63), 31 (citing Ex. 1005, Figs. 1–3, 3:66–4:2). Svette describes that “the connector housing at each of its ends 36, 38 has a pair of guides 140 and an intermediate ramp 142. The ramp 142 is adapted to be connected to a latch finger (not shown) of a cover (not shown) for covering the entire connector housing 12.” Ex. 1005, 3:66–4:2.

Petitioner also provides a sufficiently persuasive rationale for combining the teachings of Boyd and Svette. Specifically, Petitioner contends that “[i]t would have been obvious for a person having ordinary skill in the art to modify the cover of Boyd [with] the latch configuration

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obviousness analysis. Accordingly, our analysis is based upon the first three of the four *Graham* factors.



disclosed in Svette because such modification is nothing more than the simple substitution of one known type of latch for another,” and that such substitution would have been no more “than the predictable use of prior art elements according to their established functions.” Pet. 28–29 (quoting *KSR*, 550 U.S. at 416–17; citing Ex. 1007 ¶ 63). Petitioner also notes that Boyd states “other means may be used to latch the cover to the base” (*id.* at 29 (citing Ex. 1002, 3:44–45)), which, by itself, suggests that one of ordinary skill in the art would have looked to other latch configurations, such as the one disclosed in Svette.

Petitioner provides further analysis of claims 13–18, including a claim chart detailing where it contends each limitation of those claims is disclosed in Boyd, Svette, and Caveney. *Id.* at 29–33. We have reviewed Petitioner’s evidence and argument, and find that Petitioner has shown the cited references teach each limitation of the challenged claims, and that Petitioner has provided a sufficiently persuasive rationale for combining those teachings. *Id.*

In the Patent Owner Response, Patent Owner contends Boyd is not prior art. PO Resp. 10–46. For the reasons discussed above, we determine that Boyd qualifies as prior art, and do not find Patent Owner’s contentions persuasive. Patent Owner does not present further arguments regarding this unpatentability ground.

For the reasons discussed above, based on the current record, we determine Petitioner has shown by a preponderance of the evidence that claims 12–18 are unpatentable based on obviousness over Boyd, Svette, and Caveney.

*D. Asserted Obviousness Over Svette*

Petitioner contends that claims 1–12 and 19–23 would have been obvious over Svette. Pet. 33–44. We agree with and adopt Petitioner’s analysis as our own. In particular, we have reviewed the information provided by Petitioner, including the relevant portions of the supporting Happ Declaration (Ex. 1007), and are persuaded that Petitioner has demonstrated the unpatentability of these claims by a preponderance of the evidence.

For example, Petitioner contends Svette’s connector housing 12 corresponds to the component attachment portion of claim 1. Pet. 33 (citing Ex. 1007 ¶ 70). Petitioner also contends Svette teaches a cover and fastener as recited in claim 1. *Id.* (citing Ex. 1005, Fig. 1, 3:66–4:2; Ex. 1007 ¶ 70). Petitioner further argues “a person having ordinary skill in the art would be motivated to use a conventional cover design, such as Boyd, in order to ensure that the connector housing of Svette was protected from the environment.” *Id.* at 34 (citing Ex. 1002, 2:11–14; Ex. 1007 ¶ 70).

In addition, Petitioner contends that Svette’s cavities 14 correspond to the receptacle openings recited in independent claim 1. *Id.* (citing Ex. 1005, Fig. 1; Ex. 1007 ¶ 72). Although Petitioner points to the “cables that are received within the cavities” of Svette as teaching the recited “distribution harness,” Petitioner also contends “it would have been obvious to a person having ordinary skill to use a conventional wire harness configuration in conjunction with the connector housing block of Svette,” such as those taught in Matsuoka<sup>5</sup> and Boyd. *Id.* at 35 (citing Ex. 1007 ¶ 74).

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<sup>5</sup> “Matsuoka,” U.S. Patent No. 6,121,548; issued Sept. 19, 2000 (Ex. 1003).

Petitioner provides additional analysis of claims 1–12 and 19–23, including a claim chart detailing where it contends each limitation of those claims is disclosed, or would have been obvious in light of, Svette. *Id.* at 33–44. We have reviewed Petitioner’s evidence and argument, and find that Petitioner has shown Svette teaches each limitation of the challenged claims, or that such limitations would have been obvious in light of Svette’s teachings. Petitioner has also provided a sufficiently persuasive rationale for modifying Svette based on the background knowledge of a person of ordinary skill in the art (as evidenced by the teachings of Boyd and Matsuoka).

Patent Owner argues this ground is improper because Petitioner includes references other than Svette in its claim charts without identifying those references in its statement of grounds, identifying a motivation to combine those references, or identifying a “cogent” theory of obviousness. PO Resp. 46–49. We disagree. As we stated in rejecting this argument at the institution phase (Paper 11, 21), “[a]rt can legitimately serve to document the knowledge that skilled artisans would bring to bear in reading the prior art identified as producing obviousness.” *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015); *see also Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013) (recognizing that prior art may be considered as “part of the store of public knowledge that must be consulted when considering whether a claimed invention would have been obvious”). We disagree that the Petition is unclear which combination of references Patent Owner needs to address (PO Resp. 47–48). The Petition relies on obviousness over Svette, and relies on additional references to evidence the background knowledge of an ordinary artisan in

reading Svette. For example, Petitioner contends Svette teaches the housing recited in the independent claims, and further contends a person of ordinary skill in the art would have been motivated to use a conventional cover design to protect the connector housing of Svette from the environment. Pet. 33–34. Further, Petitioner contends it would have been obvious to use a conventional wire harness with the connector housing of Svette, and cites examples of such harnesses in Matsuoka and Boyd. *Id.* at 35. In regards to claim 9, Petitioner also contends a person of ordinary skill in the art would have understood a waterproof cover would have been desirable. *Id.* at 36–37. Petitioner supports these contentions with its expert’s testimony, and also provides detailed contentions in a claim chart. *Id.* at 39–44. We find Petitioner’s contentions are sufficiently clear and rely appropriately on additional references as evidence of “the knowledge that skilled artisans would bring to bear in reading [Svette].” *See Ariosa*, 805 F.3d at 1365.

Patent Owner further contends that Boyd is not prior art, and because this ground of unpatentability relies on Boyd, it is improper. PO Resp. 49–50. For the reasons discussed above, we determine that Boyd qualifies as prior art, and do not find Patent Owner’s contentions persuasive. To the extent that Patent Owner reiterates its arguments that this ground is improper for relying on additional references (*id.*), we find those arguments unpersuasive for the reasons discussed above. In discussing Petitioner’s evidence regarding conventional cover designs, Patent Owner also contends the “Petition thus fails to articulate a persuasive reason with a rational underpinning to support a legal conclusion of obviousness for any of the alleged combinations.” *Id.* We disagree because Petitioner provides sufficiently persuasive reasoning why a person of ordinary skill in the art

would have been motivated to use a conventional cover design (i.e., to protect the connector housing of Svette from the environment). Pet. 33–34 (citing Ex. 1007 ¶¶ 70–71).

Regarding the “distribution harness” of claims 1, 11, and 19, Patent Owner contends Petitioner fails to (1) apply the correct construction of that term; and (2) provide articulated reasoning with rational underpinning for using a convention wire harness with Svette. PO Resp. 50–51. As discussed above, we construe a “distribution harness” as an apparatus that holds wires together. As Patent Owner recognizes (*id.*), Petitioner relies on references such as Boyd and Matsuoka as teaching conventional wire harnesses. Pet. 35 (citing Ex. 1007 ¶ 74), 40. As we found in our Institution Decision (Paper 11, 22–23) and as cited in Petitioner’s Reply (Pet. Reply 21), Mr. Happ provides sufficient reasons why a person of ordinary skill in the art would have found it obvious to use a wire harness with a power distribution module, such as that taught in Svette, including bundling the wires to prevent fraying and to lengthen the lifespan of the wires. Ex. 1007 ¶ 75. Petitioner also cites Patent Owner’s expert Dr. Wilhelm’s consistent testimony about the known benefits of using a wire harness. Pet. Reply 20–21 (citing Ex. 1010, 59:4–24). We find Petitioner has presented sufficient reasoning why a person of ordinary skill would have found it obvious to use a distribution harness as recited in claims 1, 11, and 19 with the distribution module in Svette.

Patent Owner argues Petitioner has failed to provide a “sufficient obviousness rational for the ‘waterproof housing’ of dependent claim 9.” PO Resp. 51–52. Claim 9 depends from claim 1, and recites “the housing is waterproof when the cover is secured to the component attachment portion.”

Ex. 1001, 7:52–54. Petitioner contends a person of ordinary skill in the art would have understood the desirability of having a waterproof housing and cites Boyd’s disclosure that its interlocking cover and housing protect “against environmental degradation of the electrical components maintained within.” Pet. 36–37 (citing Ex. 1002, 4:47–60; Ex. 1007 ¶ 79). We disagree with Patent Owner that Petitioner has not explained why use of a waterproof housing would have been desirable. As noted above, Petitioner cites Boyd’s disclosure that such a housing would protect against environmental degradation of the electrical components within the housing.

Finally, Patent Owner argues that this ground is deficient because Petitioner has not shown Svette teaches the preamble of claims 1 and 11. PO Resp. 53. As discussed in our claim construction section above, however, we find the preambles of those claims are not limiting. *See supra* Section III.A.2.

For the reasons discussed above, we determine Petitioner has shown by a preponderance of the evidence that claims 1–12 and 19–23 are unpatentable as obvious over Svette.

#### IV. MOTION TO EXCLUDE

Petitioner moves to exclude Patent Owner’s Exhibits 2004–2033 as unauthenticated, hearsay, or both. Mot. to Exclude 1. Because the outcome of this trial would not change based on whether or not we exclude those exhibits, we dismiss Petitioner’s Motion to Exclude as moot.

## V. CONCLUSION

Petitioner has demonstrated by a preponderance of the evidence that:

A. Claims 1–6, 11, 19, 22, and 23 are unpatentable as anticipated by Boyd;

B. Claims 12–18 are unpatentable as obvious over Boyd, Svette, and Caveney; and

C. Claims 1–12 and 19–23 are unpatentable as obvious over Svette.

## VI. ORDER

It is, therefore,

ORDERED that claims 1–23 of the '188 patent are *unpatentable*;

FURTHER ORDERED that Petitioner's Motion to Exclude is *dismissed*; and

FURTHER ORDERED that, because this is a Final Written Decision of the Board under 35 U.S.C. § 328(a), parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2016-01385  
Patent 7,072,188 B2

PETITIONER:

Michael T. Griggs  
Eric J. Lalor  
Sarah M. Wong  
BOYLE FREDRICKSON, S.C.  
mtg@boylefred.com  
ejl@boylefred.com  
smw@boylefred.com

PATENT OWNER:

Jason Jackson  
Niall MacLeod  
KUTAK ROCK LLP  
jason.jackson@kutakrock.com  
niall.macleod@kutakrock.com