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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEP POWER PRODUCTS, INC.,
Petitioner,
v.

ARCTIC CAT INC.,
Patent Owner

Case IPR2016-01385
Patent 7,072,188

**PATENT OWNER ARCTIC CAT INC.'S
NOTICE OF APPEAL TO THE U.S. COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

Pursuant to 35 U.S.C. §§ 141(c), 142, and 319, 37 C.F.R. §§ 90.2(a) and 90.3(a), Rule 4(a) of the Federal Rules of Appellate Procedure, and 28 U.S.C. §1292(c), Patent Owner Arctic Cat Inc. hereby appeals to the United States Court of Appeals for the Federal Circuit from the Decision on Remand (Paper 34) entered by the Patent Trial and Appeal Board on August 6, 2019 (Attachment A). Patent Owner identifies the following issues on appeal:

- The Board’s judgment that claims 1-12 and 19-23 (“Challenged Claims”) of U.S. Patent No. 7,072,188 are unpatentable as obvious over U.S. Patent No. 5,354,211 to Svette (“Svette”);
- The Board’s determination that removal of U.S. Patent No. 6,850,421 to Boyd (“Boyd”) did not affect Petitioner’s challenge to the Challenged Claims for obviousness over Svette (“Svette”);
- The Board’s claim constructions;
- Any Board finding, determination, judgment or order supporting or related to the Decision on Remand and decided adversely to Patent Owner.

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

IPR2016-01385

GEP Power Products, Inc. v. Arctic Cat, Inc.

Dated: October 8, 2019

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing Patent Owner Arctic Cat Inc.'s Notice of Appeal to the U.S. Court of Appeals for the Federal Circuit was served via email on October 8, 2019 on the following:

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IPR2016-01385
GEP Power Products, Inc. v. Arctic Cat, Inc.

ATTACHMENT A

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEP POWER PRODUCTS, INC.,
Petitioner,

v.

ARCTIC CAT INC.,
Patent Owner.

Case IPR2016-01385
Patent 7,072,188 B2

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

KAISER, *Administrative Patent Judge*.

DECISION ON REMAND
Inter Partes Review
35 U.S.C. § 144 and 37 C.F.R. § 42.5(a)

I. BACKGROUND

A. *Initial Proceedings Before the Board*

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 and all grounds raised in the Petition. 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”). An oral hearing was held on September 27, 2017. A transcript of that hearing is included in the record. Paper 26 (“Hr’g Tr.”).

On December 5, 2017, we entered a Final Written Decision (Paper 27, “Final Dec.” or “Final Decision”) determining that Petitioner had shown, by a preponderance of the evidence, that claims 1–23 of the ’188 patent are unpatentable on the following grounds: (1) claims 1–6, 11, 19, 22, and 23 under 35 U.S.C. § 102(e) as anticipated by Boyd¹; (2) claims 12–18 under 35 U.S.C. § 103(a) as obvious over Boyd, Svette,² and Caveney³; and

¹ U.S. Patent No. 6,850,421 B2; filed April 1, 2002; issued Feb. 1, 2005 (Ex. 1002).

² U.S. Patent No. 5,354,211; issued Oct. 11, 1994 (Ex. 1005).

³ U.S. Patent No. 3,660,869; issued May 9, 1972 (Ex. 1006).

(3) claims 1–12 and 19–23 under 35 U.S.C. § 103(a) as obvious over Svette. Final Dec. 39.

B. Proceedings Before the Federal Circuit

On February 2, 2018, Patent Owner filed a Notice of Appeal to the U.S. Court of Appeals for the Federal Circuit for review of our Final Decision. *See* Paper 28. On March 26, 2019, the Federal Circuit affirmed-in-part, reversed-in-part, vacated-in-part, and remanded our Final Decision. *Arctic Cat Inc. v. GEP Power Prods., Inc.*, 919 F.3d 1320, 1333 (Fed. Cir. 2019) (Paper 32).⁴ The Federal Circuit first determined the Board did not abuse its discretion in deciding to expunge a deposition transcript filed by Patent Owner. *Id.* at 1326–27. Next, the Federal Circuit agreed with our determination that the preambles of claims 1 and 11 of the ’188 patent are not limiting. *Id.* at 1328–29. The Federal Circuit then turned to Patent Owner’s argument that we incorrectly ruled Boyd is prior art for purposes of the ’188 patent. *Id.* at 1330. There, the Federal Circuit disagreed with our analysis and determined the record established diligence to reduction to practice in this case. *Id.* at 1331–32. Thus, the Federal Circuit concluded Boyd was not available as prior art to the ’188 patent and reversed our determination that certain claims of that patent were anticipated by Boyd or unpatentable as obvious over Boyd, Svette, and Caveney. *Id.* at 1332.

As to our determination that claims 1–12 and 19–23 of the ’188 patent are unpatentable as obvious over Svette alone, the Federal Circuit stated:

[T]he Board relied on Boyd as evidence of background knowledge that a relevant artisan would have used to properly read Svette. We hold that Boyd is not prior art. We think it

⁴ We address only the Federal Circuit’s decision as to this proceeding and not as to Case IPR2016-01388.

advisable to permit the Board to determine in the first instance whether removal of Boyd from the pool of prior art affects the proper outcome on the Svette-only ground. We vacate the Board's decision on the third instituted ground and remand for further proceedings, to be conducted without treating Boyd as prior art.

Id. (citation omitted). The mandate issued on May 2, 2019. Paper 33.

C. Proceedings on Remand

Following the Federal Circuit's decision, in accordance with the Board's Standard Operating Procedure 9, the parties conferred regarding the remand and contacted the Board with an agreed proposed remand procedure. Ex. 3001. On May 14, 2019, we issued an order with a remand briefing schedule consistent with the agreed procedure proposed by the parties. Paper 29. In that order, we clarified that remand briefing is "limited to the issue of whether the removal of Boyd from the pool of prior art affects Petitioner's challenge to claims 1–12 and 19–23 for obviousness over Svette alone." *Id.* at 3. On May 28, 2019, Petitioner filed its Remand Brief. Paper 30 ("Pet. Remand Br."). On June 11, 2019, Patent Owner filed its Remand Brief. Paper 31 ("PO Remand Br.").

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, at [57].

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.

III. ANALYSIS

A. Claim Construction

In our Final Decision, we construed the recited “distribution harness” as an apparatus that holds wires (i.e., the recited “conductor cables”) together. Final Dec. 7–9. That determination was not challenged by Patent Owner in its appeal to the Federal Circuit. We also determined that the preambles of independent claims 1 and 11 (each reciting “[a] power distribution module for a personal recreational vehicle,” Ex. 1001, 7:5–6, 60–61) were not limiting. *Id.* at 9–12. The Federal Circuit agreed with that determination on appeal. *Arctic Cat Inc.*, 919 F.3d at 1328–29.

B. Asserted Obviousness Over Svette

As we explain above, the scope of the Federal Circuit’s remand is limited to Petitioner’s asserted ground challenging claims 1–12 and 19–23 under 35 U.S.C. § 103(a) as obvious over Svette and, in particular, to “whether the removal of Boyd from the pool of prior art affects” this ground. *Arctic Cat Inc.*, 919 F.3d at 1332; *see also* Paper 29, 3 (limiting remand briefing to this particular issue).

1. Overview of Svette

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.

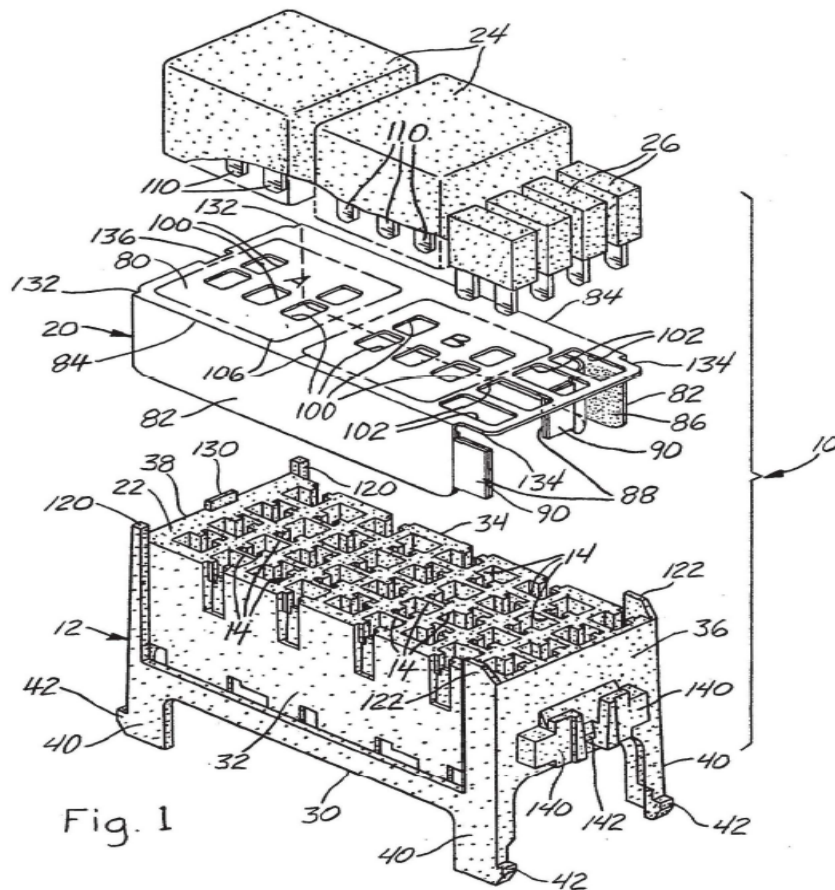


Figure 1 of Svette depicts electrical connector assembly 10, including connector housing 12, alignment overlay 20, and electrical devices 24 and 26. *Id.* at 2:12–23. Connector housing 12 has a plurality of cavities 14 for receiving prongs 110 of the electrical devices. *Id.* at 2:12–23, 3:23–37.

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.⁵ *See Graham v. John Deere Co.*, 383 U.S. 1, 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. The Federal Circuit has routinely held that it is appropriate to apply a single prior art reference together with the general background knowledge of one of ordinary skill in the art in analyzing obviousness. *See Monsanto Tech. LLC v. E.I. DuPont de Nemours & Co.*, 878 F.3d 1336, 1346–47 (Fed. Cir. 2018) (“Though less common, in appropriate circumstances, a patent can be obvious in light of a single prior art reference if it would have been obvious to modify the reference to arrive at the [claimed] invention.”) (quoting *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1361 (Fed. Cir. 2016)); *see also Realtime Data LLC v. Iancu*, 912 F.3d 1368, 1373 (Fed. Cir. 2019) (affirming the Board’s conclusion that claims were obvious based on one prior art reference alone notwithstanding patent owner’s argument that the ground at issue may have been more properly raised under 35 U.S.C. § 102).

Petitioner contends that claims 1–12 and 19–23 would have been obvious over Svette. Pet. 33–44. In the Final Decision, we identified

⁵ Neither party introduced objective evidence of non-obviousness or argued that the existence of secondary considerations affects this Decision’s obviousness analysis. Accordingly, our analysis is based upon the first three of the four *Graham* factors.

several of Petitioner’s contentions regarding this asserted ground with which we agreed. *See* Pet. 34–38. As noted above, the Federal Circuit vacated our decision on this ground and remanded for us to determine “in the first instance whether removal of Boyd from the pool of prior art affects the proper outcome on the Svette-only ground.” *Arctic Cat Inc.*, 919 F.3d at 1332. On remand, Patent Owner faults Petitioner for appearing to place the burden on Patent Owner and citing arguments in its Petition as if they have been established. PO Remand Br. 2–3. We emphasize that Petitioner has the ultimate burden of establishing unpatentability by a preponderance of the evidence. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). We have reviewed the information provided by Petitioner anew without considering Boyd as prior art,⁶ and as in the Final Decision, we are persuaded that Petitioner has demonstrated the unpatentability of these claims by a preponderance of the evidence for the reasons discussed in detail below.

⁶ Patent Owner characterizes Boyd as “the crown jewel of” and “critical to” Petitioner’s arguments for the Svette-only ground, and Patent Owner contends “removing Boyd from the prior art in this [*inter partes* review] is of great significance.” PO Remand Br. 2–5. We agree with Patent Owner that we considered Boyd an anticipatory reference in our Final Written Decision as to several of the challenged claims. But the issue on remand is not whether removal of Boyd as prior art affects Petitioner’s challenges in the Petition—the Federal Circuit already determined it did when it reversed our determination that certain claims of the ’188 patent were anticipated by Boyd or unpatentable as obvious over Boyd in combination with other references. Instead, we are tasked with determining “in the first instance whether removal of Boyd from the pool of prior art affects the proper outcome on the Svette-only ground.” *Arctic Cat Inc.*, 919 F.3d at 1332. That issue is what we address in this remand decision.

a. Sufficiently articulated ground

As an initial matter, we address Patent Owner’s argument that 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; *see also* PO Remand Br. 5–6. We do not agree. As we stated in the Final Decision (Final Dec. 35–36), as well as the Decision on Institution (Paper 11, 21–22), “[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 also decline to elevate form over substance in analyzing Petitioner’s grounds. Although Petitioner styles this ground as obviousness over Svette, Petitioner cites other references as support for how a person of ordinary skill in the art would have understood Svette, as well as for modifications to Svette that Petitioner alleges would have been obvious. Pet. 33–44. Petitioner also provides articulated reasoning why a person of ordinary skill in the art would have found those modifications obvious. 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 (such as that

disclosed in Matsuoka⁷) to protect the connector housing of Svette from the environment. *Id.* at 33–34. Further, Petitioner contends it would have been obvious to use a conventional wire harness with the connector housing of Svette, and cites an example of such a harness in Matsuoka. *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, and, once again, cites an example of such a waterproof cover in Matsuoka. *Id.* at 36–37. Petitioner supports these contentions with its declarant’s testimony, and also provides detailed contentions in a claim chart. *Id.* at 39–44. We find Petitioner’s contentions are sufficiently clear, and we disagree with Patent Owner (PO Remand Br. 6) that removal of Boyd as prior art should alter our analysis of this argument. Thus, we proceed to analyze Petitioner’s contentions below without considering Boyd as prior art.

b. Recited “cover”

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).

Claim 1 further recites that the cover has “a first surface substantially surrounding the perimeter thereof, the first surface conforming to a first edge surrounding the perimeter of the component attachment portion.” Ex. 1001, 7:8–12. Petitioner contends this limitation recites “a conventional cover configuration.” Pet. 34 (citing Ex. 1007 ¶ 71). Petitioner contends a person of ordinary skill in the art would have understood that:

⁷ “Matsuoka,” U.S. Patent No. 6,121,548; issued Sept. 19, 2000 (Ex. 1003).

Svette’s disclosure of a cover that covers the entire housing, coupled with positioning of the guides 140 and ramp 142 – which would necessarily secure the vertical wall of the cover to the vertical wall of the component attachment portion – discloses the claim 1 recitation of a cover surface that conforms to the edge of a wall.

Id. (citing Ex. 1007 ¶ 71). Petitioner further argues “a person having ordinary skill in the art would be motivated to use a conventional cover design . . . in order to ensure that the connector housing of Svette was protected from the environment.” *Id.* at 34 (citing Ex. 1007 ¶ 70).⁸

In discussing Petitioner’s evidence regarding conventional cover designs, Patent Owner contends the Petition “fails to articulate a persuasive reason with a rational underpinning to support a legal conclusion of obviousness for any of the alleged combinations.” PO Resp. 49–50. As we stated in the Final Decision (Final Dec. 36–37), 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).

On remand, Patent Owner argues that the challenged claims of the ’188 patent “require more than a ‘conventional cover’ as [Petitioner] and the Board have stated.” PO Remand Br. 8. Specifically, Patent Owner points

⁸ Although Petitioner cites Boyd as support for these contentions, we do not consider Boyd in analyzing these contentions. Instead, as discussed below, we rely on Petitioner’s argument regarding a conventional cover design, in conjunction with Petitioner’s identification of Matsuoka as such a conventional cover design. Pet. 39; *see also* Pet. Reply 17–18 (noting the Petition cited Matsuoka as an example of a conventional design); Pet. Remand Br. 1.

out specific limitations related to the cover in claims 1, 11, and 22,⁹ and contends Svette does not disclose those limitations because “Svette merely recites the term ‘cover,’ but does not illustrate a cover in its drawings, much less disclose how the cover would conform or engage any component attachment portion as claimed.” *Id.* at 8–9 (citing Ex. 1005, 3:66–4:2, Fig. 1).

We note that Patent Owner did not make this argument during the trial. Although Patent Owner cites its Patent Owner Response (PO Remand Br. 9 (citing PO Resp. 49)), the cited portion of the Patent Owner Response makes no mention of the claim limitations related to how the cover would conform or engage any component attachment portion. *See* PO Resp. 49. Consequently, this is a belated argument that is not entitled to consideration on remand. *See* Paper 12, 3 (cautioning Patent Owner that “any arguments for patentability not raised in the response will be deemed waived”). Nevertheless, because we are revisiting this ground on remand without considering Boyd as prior art and because Petitioner bears the burden to prove unpatentability based on this ground, we consider Patent Owner’s argument.

Svette discloses “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

⁹ We understand Patent Owner’s citation to claim 23 to be a typographical error because claim 23 depends from claim 19 and additionally recites “wherein the upper receivers are configured to receive standard electrical connectors.” Ex. 1001, 10:8–10. Instead, we understand Patent Owner’s arguments to be directed to claim 22, which depends from claim 19 and recites additional limitations related to the “cover.” *Id.* at 9:10–10:7.

covering the entire connector housing 12.” Ex. 1005, 3:66–4:2. Mr. Happ testifies:

Svette’s disclosure of a cover that covers the entire housing, coupled with positioning of the guides 140 and ramp 142 – which would necessarily secure the vertical wall of the cover to the vertical wall of the component attachment portion – discloses the claim 1 recitation of a cover surface that conforms to the edge of a wall.

Ex. 1007 ¶ 71. In other words, Mr. Happ testifies that a person of ordinary skill in the art would have understood the disclosures in Svette to teach the cover configuration recited in the challenged claims.

We find this testimony persuasive because it is consistent with the teachings of Svette. In Figure 1 of Svette (reproduced above), each end of the connector housing 12 (i.e., the component attachment portion) has an intermediate ramp 142 that is adapted to be connected to a latch of a cover for covering the entire connector housing. Ex. 1005, 3:66–4:2. We are persuaded that a person of ordinary skill in the art would have understood that the cover in Svette (although not depicted) would have “a first surface substantially surrounding the perimeter thereof” (i.e., the vertical walls or interior surface of the sides of the cover) and “the first surface conforming to a first edge surrounding the perimeter of the component attachment portion” (i.e., the vertical walls or interior surface of the sides would conform to the vertical wall of the component attachment portion). *See id.* at Fig. 1, 3:66–4:2. We also find that in Svette, the connector housing (i.e., “component attachment portion”) includes intermediate ramp 142 (i.e., “a fastener secured thereto proximate the first edge thereof”), and that intermediate ramp secures the connector housing to the cover via the latch finger of the cover so that the first surface of the cover would be in engagement with the

first edge of the connector housing. *See id.* Thus, we agree with Petitioner and its declarant, Mr. Happ, that a person of ordinary skill in the art would have understood that Svette teaches the “cover” limitations of claim 1, as well as the similar limitations recited in claims 11 and 22. Ex. 1001, 7:8–17; *see also id.* at 7:63–8:7 (claim 11), 9:10–10:7 (claim 22).

Our findings regarding Svette’s teachings are further supported by Petitioner’s contentions and evidence that a person of ordinary skill in the art would have been motivated to use a conventional cover design in order to ensure that the connector housing of Svette was protected from the environment. Pet. 34. Petitioner cites Matsuoka (Ex. 1003) as showing a conventional cover design.¹⁰ *Id.* at 39; *see also* Pet. Reply 17–18 (noting the Petition cited Matsuoka as an example of a conventional design); Pet. Remand Br. 1.

¹⁰ Petitioner also cites Boyd, but as noted above, we do not consider Boyd. Petitioner further cites “Davis,” but Petitioner never filed Davis as part of the record in this proceeding. *See* Pet. Remand Br. 1 n.1. We agree with Patent Owner (PO Remand Br. 10 n.1) that it is too late for new evidence to be introduced in this proceeding. Thus, we do not consider Davis because it is not of record.

Figure 7 of Matsuoka is reproduced below.

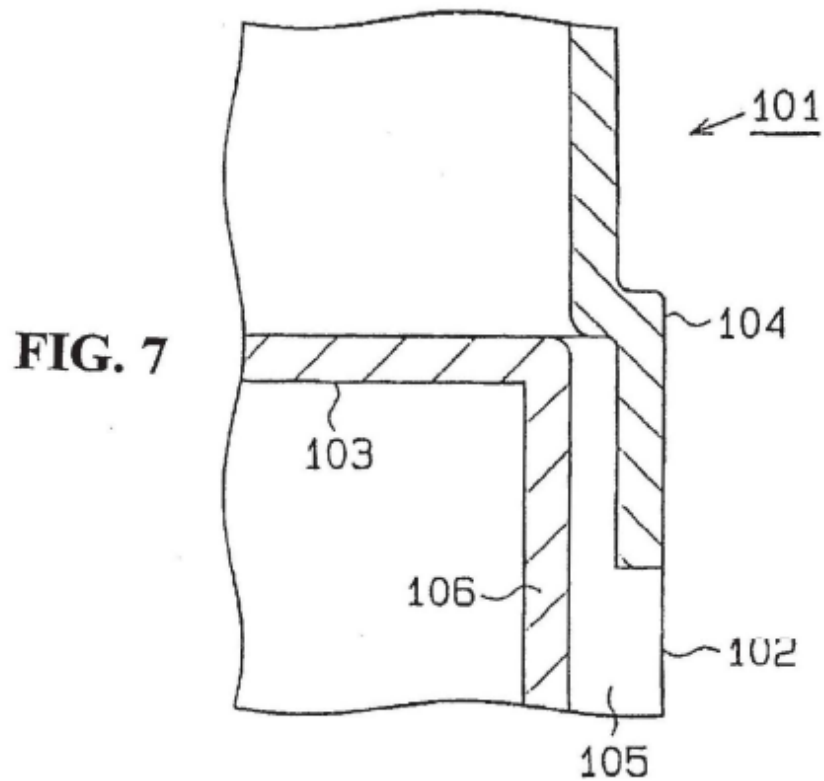


Figure 7 of Matsuoka shows “a conventional electrical connection box.” Ex. 1003, 1:16–17. Matsuoka states that, “[b]y interfitting the upper cover 104 with the lower cover 102, a water-proof function is given to the electrical connection box 101.” *Id.* at 1:24–26. Matsuoka also shows exploded and assembled views of its electrical connection box where the upper cover engages with the lower cover (which includes the electrical component mounting block therein). *See id.* at 3:8–33 (“On the upper periphery of the lower cover 12, a projecting rim 20 is formed for supporting the lower surface of the upper cover 14, as well as a projection 21 and an engagement area 22 for fastening the upper cover 14.”), Figs. 1, 2.

We find these disclosures in Matsuoka further illuminate how a person of ordinary skill in the art would have understood Svette's disclosures regarding its cover. We also find a person of ordinary skill in the art would have been aware of cover designs, such as those disclosed in Matsuoka; in other words, such cover designs would have been part of the general background knowledge of an ordinary artisan when reading Svette. For the reasons discussed above, we determine that Svette discloses the "cover" limitations in claims 1, 11, and 22. To the extent Svette does not disclose the claimed "cover," we find persuasive that a person of ordinary skill in the art would have had reason (i.e., to protect the connector housing from the environment) to configure Svette's cover so that the cover's first surface conforms to a first edge surrounding the perimeter of the connector housing and so that the connector housing's ramp 142 secures the connector housing to the cover with the first surface of the cover in engagement with the first edge of the connector housing. Pet. 34.

As discussed above, independent claim 1, independent claim 11, and dependent claim 22 recite similar limitations regarding the "cover." Independent claim 19, however, recites different limitations, namely, a "cover" and "the cover securing to the component attachment portion over the upper receivers." Ex. 1001, 8:55–62. Patent Owner's arguments do not address this claim language. See PO Remand Br. 8–9. As discussed above, Svette discloses "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, *cited at* Pet. 33. Based on this disclosure, we find Svette discloses a cover that secures to the

component attachment portion (i.e., the connector housing) over the upper receivers (i.e., cavities 14).

For the reasons discussed above, we find Petitioner's evidence establishes that Svette discloses the "cover" limitations of the challenged claims or that those limitations would have been obvious based on Svette's teachings in view of the general background knowledge of a person of ordinary skill in the art.

c. "distribution harness"

As discussed above, we construed the recited "distribution harness" as an apparatus that holds wires (i.e., the recited "conductor cables") together (Final Dec. 7–9), and that determination was not challenged by Patent Owner in its appeal to the Federal Circuit. Although Petitioner points to the "cables that are received within the cavities" of Svette as teaching the recited "distribution harness," at the institution stage, we agreed with Patent Owner that Svette's cables themselves do not teach the recited "distribution harness." Paper 11, 22. We did not alter that determination in the Final Decision, and we do not do so here.

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 that taught in Matsuoka.¹¹ Pet. 35 (citing Ex. 1007 ¶ 74), 40. As cited in Petitioner's Reply (Pet. Reply 21), Mr. Happ provides reasons why it would have been obvious to a person of ordinary skill in the art to use a wire harness with a power distribution module, such as that taught in Svette, including bundling

¹¹ Petitioner also cites Boyd, but as noted above, we do not consider Boyd.

the wires to prevent fraying and to lengthen the lifespan of the wires. Ex. 1007 ¶ 75. Petitioner also cites the consistent testimony of Patent Owner’s declarant, Dr. Wilhelm, about the known benefits of using a wire harness. Pet. Reply 20–21 (citing Ex. 1010, 59:4–24). On remand, Petitioner contends “[r]emoval of Boyd does not affect the Board’s analysis, which relied upon the testimony of Mr. Happ as to the reasons for incorporating a convention wire harness into the Svette [power distribution module].” Pet. Remand Br. 6–7.

Patent Owner contends Petitioner fails to provide articulated reasoning with rational underpinning for using a convention wire harness with Svette. PO Resp. 50–51. On remand, Patent Owner further contends that, “absent Boyd as a roadmap, the Petition and the Final Written Decision fail to provide or identify adequate reasoning as to how a person of ordinary skill in the art would modify Svette, with its vertical component cavities 14, with a side-wall ‘distribution harness’ like that shown in Figure 1 of Matsuoka.” PO Remand Br. 7; *see also id.* at 11–12 (arguing Petitioner’s combination of Svette and Matsuoka would result in a device with an enclosed underside and a wire harness extending from the side wall); PO Resp. 51 (“Petitioner fails to provide specific reasoning as to how or why a [person of ordinary skill in the art] would modify Svette with the alleged side-wall harness shown in Fig[ure] 1 of Matsuoka.”).

We find Petitioner has provided articulated reasoning with rational underpinning for using a conventional wire harness in Svette, namely, bundling the wires to prevent fraying and to lengthen the lifespan of the wires. Ex. 1007 ¶ 75.

In addition, Petitioner does not propose a bodily incorporation of Matsuoka's distribution harness into Svette, and such a bodily incorporation is not necessary to support Petitioner's obviousness challenge. *See In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) (“[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review.”) (citations omitted); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”) (citations omitted). Here, Petitioner contends Matsuoka teaches an apparatus that holds wires together. *See* Ex. 1003, 3:48–49 (“The wire harness 15 is bundled with a bundling tape to form a wire harness bundle 27.”), *cited at* Pet. Remand Br. 6. Petitioner further contends that using an apparatus to hold wires together was well known before the priority date for the '188 patent, and that Patent Owner's declarant, Dr. Wilhelm, agrees with that contention. Pet. Reply 19–21 (citing Ex. 1010, 50:19–51:7, 59:4–24).

We find Petitioner has presented sufficient reasoning why it would have been obvious to a person of ordinary skill in the art to use a distribution harness as recited in claims 1, 11, and 19 with the distribution module in Svette.

d. “waterproof”

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, as one

example, Matsuoka’s disclosure that “the cover configuration disclosed therein gives a ‘waterproof function’ to the electric connection box.” Pet. 36–37 (citing Ex. 1003, 1:16–40; Ex. 1007 ¶ 79). Petitioner contends a person of ordinary skill in the art would have understood that a waterproof cover and housing configuration would protect “against environmental degradation of the electrical components maintained within.” *Id.* at 37.¹²

Patent Owner argues Petitioner has failed to provide a “sufficient obviousness rational[e] for the ‘waterproof housing’ of dependent claim 9.” PO Resp. 51–52. In the Final Decision, we disagreed with Patent Owner that Petitioner has not explained why use of a waterproof housing would have been desirable because Petitioner contends such a housing would protect against environmental degradation of the electrical components within the housing. Final Dec. 38. On remand, Petitioner contends that “[r]emoval of Boyd from the pool of prior art does not affect the Board’s holding because Matsuoka, Mr. Happ, and Dr. Wilhelm^[13] all provide sufficient rationale for using a waterproof housing with a PDM.” Pet. Remand Br. 9. In response, Patent Owner contends:

[N]either [Petitioner] nor the Board have articulated any reason why Svette would be modified with Matsuoka or any other reference in the manner claimed, other than it is ‘desirable,’ which is clearly hindsight reasoning and which fails to provide a legally adequate reason to combine Svette, with its vertical conductor cavities, with the side-wall guiding groove and harness of Matsuoka.

¹² Petitioner cites both Boyd and its declarant’s testimony in support. *See id.* We, however, do not consider Boyd.

¹³ Petitioner cites Dr. Wilhelm’s testimony: “The conditions with regard to environment and protecting them, yes. They’ve existed for eons, yeah, long time.” Pet. Reply 21–22 (citing Ex. 1010, 68:7–15).

PO Remand Br. 13. We disagree. Petitioner cited Matsuoka as disclosing a waterproof housing, and cited Mr. Happ's testimony supporting the desirability of such a housing (i.e., to protect against environmental degradation of electrical components within that housing). Pet. 36–37 (citing Ex. 1003, 1:16–40; Ex. 1007 ¶ 79). That Petitioner originally relied on Boyd as additional support for this rationale does not undercut its persuasiveness. “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

For the reasons discussed above, we determine Petitioner has shown sufficiently that the additional limitations of claim 9 would have been obvious in light of Svette's teachings.

e. Remaining limitations

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. Pet. 33–44. Patent Owner does not address separately the remaining limitations of claims 1–12 and 19–23 in the context of Petitioner's obviousness ground based on Svette. *See generally* PO Resp., PO Remand Br. We have reviewed Petitioner's evidence and argument, and we 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 general background knowledge of a person of ordinary skill in the art (as evidenced by the teachings of Matsuoka).

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.

V. CONCLUSION

Petitioner has demonstrated by a preponderance of the evidence that claims 1–12 and 19–23 are unpatentable as obvious over Svette.

VI. ORDER

It is, therefore,

ORDERED that claims 1–12 and 19–23 of the '188 patent are *unpatentable*;

FURTHER ORDERED that claims 13–18 of the '188 patent have not been shown to be unpatentable¹⁴; and

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

¹⁴ See *Arctic Cat Inc.*, 919 F.3d at 1332–33.

IPR2016-01385
Patent 7,072,188 B2

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