

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EVE ENERGY CO., LTD.,
Petitioner,

v.

VARTA MICROBATTERY GMBH,
Patent Owner.

IPR2022-01487
Patent 9,799,913 B2

Before CHRISTOPHER L. CRUMBLEY, JON B. TORNQUIST, and
CHRISTOPHER M. KAISER, *Administrative Patent Judges*.

KAISER, *Administrative Patent Judge*.

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

INTRODUCTION

A. Background

Eve Energy Co., Ltd. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 9–16 of U.S. Patent No. 9,799,913 B2 (Ex. 1001, “the ’913 patent”).¹ VARTA Microbattery GmbH (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).² With our authorization, Petitioner filed a Preliminary Reply (Paper 12, “Prelim. Reply”) and Patent Owner filed a Preliminary Sur-Reply (Paper 15, “Prelim. Sur-Reply”).³

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b); 37 C.F.R. § 42.4(a) (2020). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

¹ USPTO records show that challenged claims 9–16 are the result of an Inter Partes Review Certificate issued April 28, 2022, for IPR2020-01214. *See infra* n.4. Neither party has introduced any record evidence of the wording of the challenged claims. Accordingly, we add the trial certificate from that proceeding as Exhibit 3001. The Certificate refers to U.S. Patent 9,799,913 K1, using the type code for trial certificates. *See* Exhibit 3001. We will herein, when referring to the ’913 patent, reference the claims of U.S. Patent 9,799,913 K1 (i.e., of the Certificate and as also set forth in the Petition’s listing of claims (Pet. 11–17)) and the disclosure of U.S. Patent 9,799,913 B2 (Ex. 1001).

² A public, redacted version of the Preliminary Response was filed as Paper 8.

³ Public, redacted versions of the Preliminary Reply and the Preliminary Sur-Reply were filed as Paper 13 and Paper 16, respectively.

After considering the Petition, the Preliminary Response, the Preliminary Reply, the Preliminary Sur-Reply, and the evidence of record, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail with respect to at least one challenged claim. Accordingly, we do not institute an *inter partes* review of any challenged claim.

B. Related Matters

The parties identify twelve district court cases that involve the '913 patent: *Audio Partnership LLC et al. v. VARTA Microbattery GmbH*, No. 1:22-cv-01073 (N.D. Ill.); *VARTA Microbattery GmbH v. Guangdong Mic-Power New Energy Co., Ltd.*, No. 2:22-cv-00025 (E.D. Tex.); *VARTA Microbattery GmbH v. Eve Energy Co., Ltd.*, No. 2:21-cv-00399 (E.D. Tex.); *VARTA Microbattery GmbH v. Audio Partnership LLC, et al.*, No. 2:21-cv-00400 (E.D. Tex.); *VARTA Microbattery GmbH v. GN Audio A/S et al.*, No. 1:21-cv-00134 (D. Del.); *VARTA Microbattery GmbH v. Guangdong Mic-Power New Energy Co., Ltd.*, No. 2:22-cv-00036 (E.D. Tex.); *VARTA Microbattery GmbH v. Costco Wholesale Corporation*, No. 2:20-cv-0051 (E.D. Tex.); *VARTA Microbattery GmbH v. Amazon.com, Inc.*, No. 2:20-cv-0052 (E.D. Tex.); *VARTA Microbattery GmbH v. Best Buy Co., Inc.*, No. 2:20-cv-0054 (E.D. Tex.); *VARTA Microbattery GmbH v. PEAG, LLC*, No. 2:20-cv-0071 (E.D. Tex.); *VARTA Microbattery GmbH v. Audio Partnership LLC, et al.*, No. 2:20-cv-00138 (E.D. Tex.); and *VARTA Microbattery GmbH v. Samsung Electronics America, Inc.*, No. 2:20-cv-00029 (E.D. Tex.). Pet. 90–91; Paper 5, 2–4. The parties also note that the

'913 patent previously was the subject of IPR2020-01214.⁴ Pet. 91; Paper 5, 5.

C. The Asserted Grounds of Unpatentability

Petitioner contends that claims 9–16 of the '913 patent are unpatentable based on the following grounds (Pet. 28–84):⁵

Claims Challenged	35 U.S.C. §	References/Basis
9–16	103(a)	Kobayashi, ⁶ Brenner ⁷
9–16	103(a)	Brown, ⁸ Higuchi, ⁹ Arai, ¹⁰ Okochi, ¹¹ Brenner

D. The '913 Patent

The '913 patent, titled “Button Cells and Method of Producing Same,” issued on October 24, 2017. Ex. 1001, codes (45), (54). It

relates to button cells comprising two metallic housing half-parts separated from one another by an electrically insulating seal and which form a housing with a flat bottom area and a flat

⁴ In IPR2020-01214, the outcome of the Final Written Decision was: “Petitioner has shown by a preponderance of the evidence that claims 1–8 of the '913 patent are unpatentable. We grant Patent Owner’s Revised Contingent Motion to Amend as to proposed substitute claims 9–16.” Ex. 2004, 4.

⁵ Petitioner also relies on a declaration from Marc Juzkow. Ex. 1002.

⁶ JP 2007-294111 A, published Nov. 8, 2007 (Ex. 1004, including both original Japanese document and certified English translation).

⁷ DE 10 2005 058 132 A1, published June 6, 2007 (Ex. 1005, including both original German document and certified English translation).

⁸ US 3,748,182, issued July 24, 1973 (Ex. 1006).

⁹ CN 101286572 A, published Oct. 15, 2008 (Ex. 1007, including both original Chinese document and certified English translation).

¹⁰ US 2006/0124973 A1, published June 15, 2006 (Ex. 1020).

¹¹ EP 0 829 105 B1, issued May 21, 2003 (Ex. 1021).

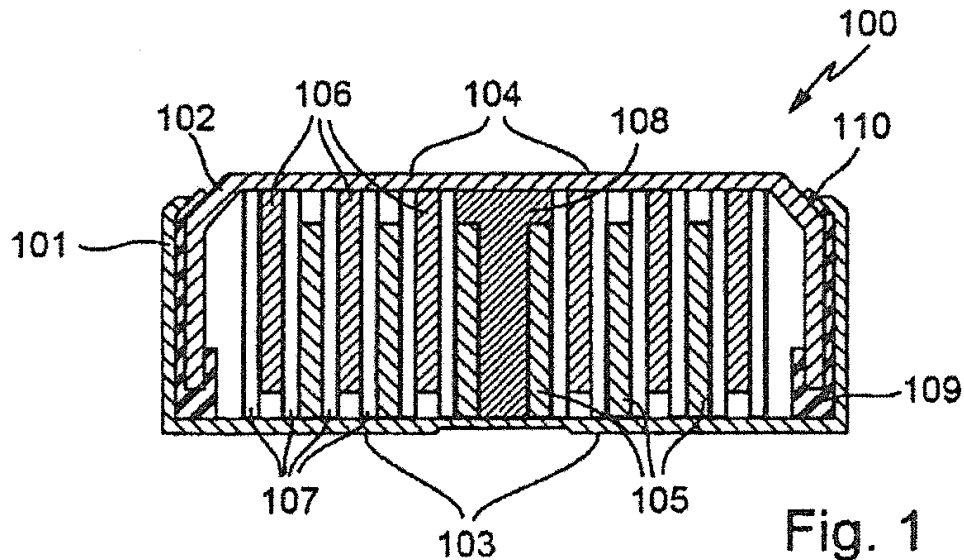
top area parallel to it, as well as within the housing, an electrode-separator assembly comprising at least one positive and at least one negative electrode, which are in the form of flat layers and are connected to one another by at least one flat separator, and to a method of producing such button cells.

Id. at 1:18–26.

According to the patent, “[b]utton cells normally have a housing consisting of two housing half-parts, a cell cup and a cell top.” *Id.* at 1:30–31. This housing contains “electrochemically active materials.” *Id.* at 1:39–58. Rather than placing these materials in the housing “in the form of individual electrodes, in the form of tablets, separated from one another by a separator,” they may instead be made into “prefabricated electrode-separator assemblies” that are “placed flat one on top of the other,” making “stacks of any desired height.” *Id.* “[I]t has been found that button cells having a stack of electrodes and separators very quickly start to leak,” requiring closing the housings “in a liquid-tight manner.” *Id.* at 2:3–7.

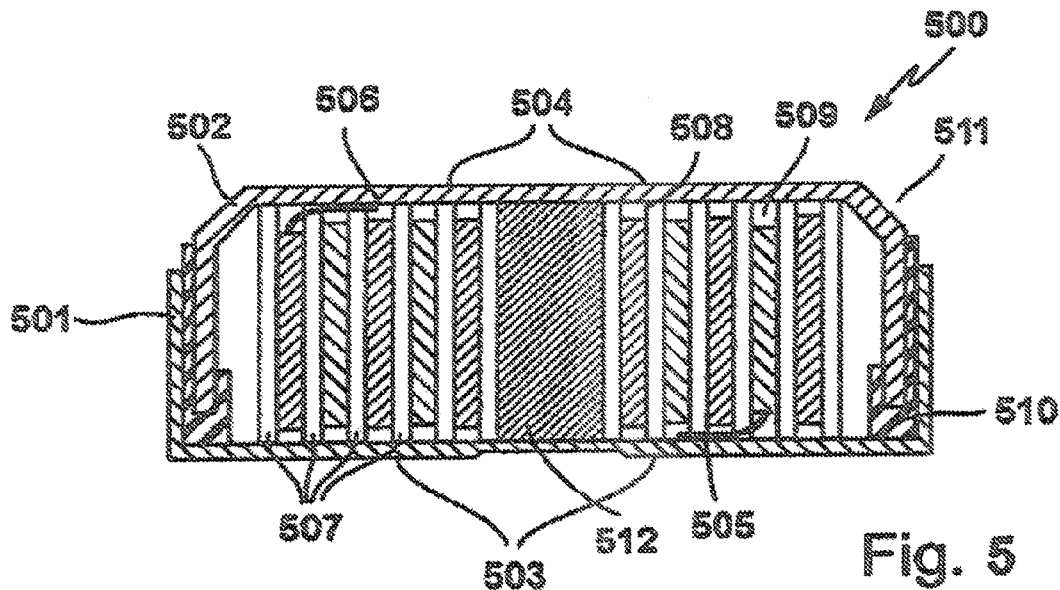
“Traditionally,” this has been accomplished “by beading the edge of the cell cup over the edge of the cell top in conjunction with a plastic ring, which is arranged between the cell cup and the cell top and at the same time acts as a sealing element.” *Id.* at 2:6–10. “[A]lternatively, it is also possible to manufacture button cells in which the cell cup and the cell top are held together in the axial direction exclusively by a force-fitting connection, and which do not have a beaded-over cup edge.” *Id.* at 2:13–16.

Figure 1 of the ’913 patent, reproduced below, illustrates “button cell 100” that is closed using the traditional method:



Id. at 11:4–5, 11:11–13, Fig. 1. In Figure 1, button cell 100 “has a metallic cup part 101 and metallic top part 102” that “are connected to one another, sealed by a seal 109,” with “edge 110 of the cell cup 101 [being] beaded inward over the edge of the cell top 102.” *Id.* at 11:5–13, Fig. 1.

A similar cell that is closed without being beaded over is illustrated in Figure 5 of the '913 patent, reproduced below:



Id. at 12:27–13:5, Fig. 5. Figure 5 illustrates “button cell 500” with “a metallic cup part 501 and a metallic top part 502” that “are connected to one another, sealed by a seal 510.” *Id.* at 12:27–31. “The cell top 502 is inserted into the cell cup 501 such that the casing areas of the cell top and of the cell cup overlap, with the internal radius of the cell cup 501 in the overlapping area being essentially constant in the direction of the cut edge.” *Id.* at 12:36–40. In this arrangement, “the edge of the cell cup 501 is not beaded over the edge 511 of the cell top 502.” *Id.* at 12:40–41. This results in “a button cell which is not beaded over.” *Id.* at 12:41–43.

The '913 patent expresses a preference for an “exclusively force-fitting connection between the housing half-parts,” where the “button cell does not have a beaded-over cup edge” and “is closed without being beaded over.” *Id.* at 7:44–49.

E. Illustrative Claim

Claims 9–16 of the '913 patent are challenged. Claims 9, 12, and 14 are independent. Claim 9 is illustrative. We reproduce it below:

9. A button cell comprising:

a housing cup including a flat bottom area and a cup casing extending along an axial direction and a housing top including a flat top area and a top casing extending along the axial direction, the housing cup and the housing top separated from one another by an electrically insulating seal and which form a button cell housing with flat top area parallel to the flat bottom area, and

a rechargeable lithium-ion electrode-separator assembly disposed within the button cell housing comprising at least one positive electrode and at least one negative electrode in the form of flat layers and connected to one another by at least one flat separator,

wherein the electrode layers are aligned essentially at right angles to the flat bottom area and the flat top area,

wherein the rechargeable lithium-ion electrode-separator assembly is a spiral winding having upper and lower end faces defining side surfaces of the spiral winding facing in the axial direction relative to the flat top area and the flat bottom area

one of said at least one positive electrode connects to the flat bottom area or the flat top area via a first metal foil output conductor and one of said at least one negative electrode connects to the other of the flat bottom area and the flat top area via a second metal foil output conductor, each of the first metal foil output conductor and the second metal foil output conductor comprising a flat portion extending in a radial direction perpendicular to the axial direction and resting flat between one of the upper or lower end faces of the spiral winding and the flat top area or the flat bottom area, respectively, and to which the respective flat portion is connected via a weld, and

at least one first insulating means preventing direct mechanical and electrical contact between the lower end face of the spiral winding and the flat bottom area and at least one second insulating means preventing direct mechanical and electrical contact between the upper end face and the flat top area,

wherein the cup casing partially overlaps the top casing in an overlapping area, the top casing is disposed radially inward of the cup casing in the overlapping area, and the housing cup and the housing top are held together by a force-fitting connection, and

wherein the cup casing includes a first part proximal to the flat bottom area and a second part disposed in the overlapping area, the first part of the cup casing being disposed radially inward with respect to the second part.

Ex. 3001, 1:7–59.

ANALYSIS

A. Claim Construction

Petitioner proposes construing a single term, “insulating means.” Pet. 27–28. Patent Owner responds that no term requires construction at this stage of the proceeding. Prelim. Resp. 20. For the reasons discussed below, we are able to determine whether to institute trial without construing “insulating means,” so we do not construe this term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

In urging that we not institute trial, Patent Owner argues that “[t]he ’913 patent distinguishes button cells that are held together by crimping from those held together with a force-fit,” noting that the challenged claims

require the latter type of button cell. Prelim. Resp. 55–56. Petitioner replies that this is an argument “that the ‘force-fitting connection’ [should] be construed as ‘closed without being beaded over.’” Prelim. Reply 10–11. Petitioner then argues that such a construction would be in error. *Id.* at 11–12. Petitioner does not propose an alternative construction for “force-fitting connection” but does argue that it should not be “limited to ‘closed without [being] beaded over.’” *Id.* at 12. Patent Owner responds that it “did not introduce a claim construction issue” and that “the issue is whether the references meet the plain language of the claim, i.e., whether a cup and top are held together by a force-fitting connection.” Prelim. Sur-Reply 10–11. Patent Owner then repeats its assertion that “[t]he ’913 patent itself draws a distinction between cells closed by a force-fit versus those closed by beading over.” *Id.* at 11.

The challenged claims each recite a “housing cup” and a “housing top” that “are held together by a force-fitting connection.” Ex. 3001, 1:52–53, 2:47–48, 4:11–12. The parties disagree about whether the references on which Petitioner relies teach or suggest this limitation. Pet. 39–42, 67–71; Prelim. Resp. 55–64. As discussed more completely below, we are able to determine whether to institute trial without deciding precisely what the ’913 patent means when it describes two parts as “held together by a force-fitting connection.” Accordingly, we need not, and do not, construe this term expressly. *See Nidec*, 868 F.3d at 1017 (quoting *Vivid Techs.*, 200 F.3d at 803).

Although we need not decide the precise meaning of “held together by a force-fitting connection” in order to decide whether to institute trial, we note (1) that, without some evidence to the contrary, a battery casing whose

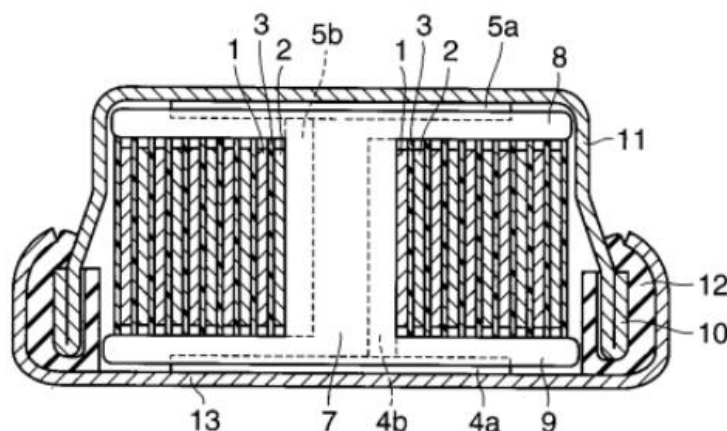
half-parts are “held together by” a particular condition must be a battery casing whose half-parts would no longer be held together if the condition were not present, and (2) that neither party has directed us to any evidence to the contrary. Accordingly, whatever a “force-fitting connection” is, a battery made in accordance with the teachings of the prior art is not a battery that is “held together by a force-fitting connection” unless that battery would cease to be held together in the absence of the “force-fitting connection.”

B. Asserted Obviousness Based on Kobayashi and Brenner

Petitioner argues that claims 9–16 of the ’913 patent would have been obvious over the combination of Kobayashi and Brenner. Pet. 28–52. Patent Owner disagrees. Prelim. Resp. 55–61.

1. Kobayashi

Kobayashi “relates to a small battery (for example, a button-type battery or a coin-type battery) provided with a wound electrode group.” Ex. 1004 ¶ 1. It discloses an example battery that is illustrated in Figure 1, reproduced below:

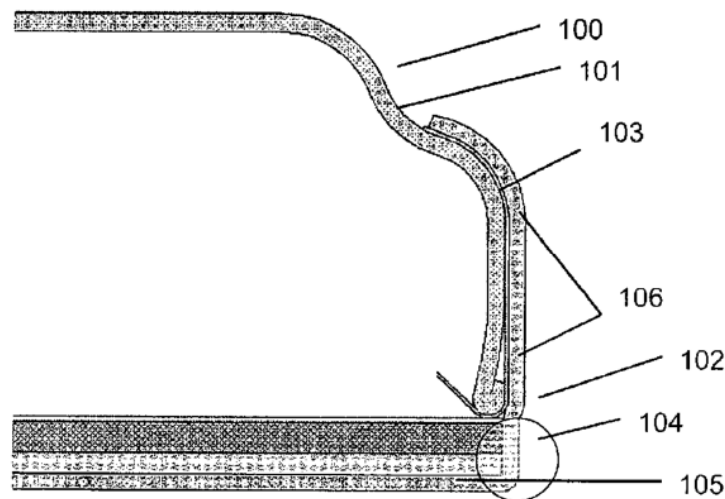


Id. at Fig. 1. Figure 1 depicts “[a] cross-sectional view of [a] battery” in which “cathode case 13” and “anode case 11” were fitted to one another and

“sealed by perform[ing] a crimping process on the cathode case 13.” *Id.* ¶¶ 25, 35.

2. *Brenner*

Brenner “relates to a galvanic element having a novel housing, and to a method for production thereof.” Ex. 1005 ¶ 1. Figure 2 of Brenner, reproduced below, depicts “in cross section [a] partial view of the housing 100 of a preferred embodiment of” Brenner’s invention:



Id. ¶ 43, Fig. 2. Figure 2 depicts “housing cover 101” and “housing cup 102,” with “film seal 103” between them. *Id.* Housing cup 102 has “cup base 105,” which is indented relative to “substantially cylindrical cup casing 106 which is flanged in the upper region.” *Id.* In addition, “[i]n the bottom region, the housing cup has a slight indentation 104.” *Id.*

3. *Analysis*

Among other limitations, claim 9 of the ’913 patent recites a “cup casing” and a “top casing,” “wherein the cup casing partially overlaps the top casing in an overlapping area, the top casing is disposed radially inward of the cup casing in the overlapping area, and the housing cup and the

housing top are held together by a force-fitting connection.” Ex. 3001, 1:52–53. Independent claims 12 and 14 each recite an identical limitation. *Id.* at 2:47–48, 4:11–12. The remaining challenged claims each depend, directly or indirectly, from one of these three claims. *Id.* at 1:60–2:6, 2:54–57, 4:17–23. Accordingly, all of the challenged claims include a limitation requiring that “the housing cup and the housing top [be] held together by a force-fitting connection.” *See* 37 C.F.R. § 1.75(c). Therefore, to show the obviousness of any of these claims, Petitioner must show that the asserted prior art teaches or suggests a “housing cup” and a “housing top” that “are held together by a force-fitting connection.” As discussed above, a battery made in accordance with the teachings of the prior art is not a battery that is “held together by a force-fitting connection” unless that battery would cease to be held together in the absence of the “force-fitting connection.”

Petitioner argues that both Kobayashi and Brenner separately teach this “force-fitting connection” limitation, and we address each reference separately below. Pet. 39–42.

With respect to Kobayashi, Petitioner argues that

Kobayashi discloses that “after fitting the positive electrode case 13 to the negative electrode case 11, it was turned upside down, and the positive electrode 13 was sealed by implementing crimping,” and a POSITA would have understood crimping to be joining two pieces of metals together by compressing and beading-over arrangement.

Id. at 40 (quoting Ex. 1004 ¶ 35). We agree with Petitioner’s characterization of Kobayashi’s disclosure. According to Kobayashi, the “battery of example 1” was “sealed by perform[ing] a crimping process on the cathode case 13” “[a]fter fitting the cathode case 13 to the anode case

11.” Ex. 1004 ¶ 35. “[T]he battery of example 1 is illustrated in FIG. 1.” *Id.* ¶ 25. As shown in Figure 1 of Kobayashi, replicated and discussed above, the edges of cathode case 13 have been drawn inward over the edges of anode case 11, with “ring-shaped insulation gasket 12” located between those edges. *Id.* ¶ 33, Fig. 1.

According to Petitioner, Kobayashi’s crimping process involves the application of “pressure in the radial direction,” using “radial forces [that] would be transmitted throughout the height of case 13, such that portions of case 13 in the overlapping area in [the] axial direction would likewise be subject to these radial compressive forces.” Pet. 41. “At the very least,” argues Petitioner, “those portions of the overlapping area proximal to the final bead, which are in [the] axial direction, would inherently be subjected to radial forces.” *Id.* Petitioner argues that these forces “compress the gasket 12,” which “necessarily gives rise to a normal force, which in turn means that a frictional force *must* exist between these two surfaces.” *Id.* (emphasis in original). For these reasons, Petitioner argues that a person of ordinary skill in the art “would have understood that Kobayashi discloses a ‘force-fitting connection’ (*i.e.*, fitting/crimping process) that ultimately holds the product together.” *Id.*

None of the argument just summarized cites any evidence in support.¹² *Id.* Although we agree with Petitioner that Kobayashi teaches a

¹² After the discussion of whether Kobayashi teaches the “force-fitting connection” limitation and the discussion of whether Brenner separately teaches the same limitation that follows the Kobayashi discussion, Petitioner cites to a single paragraph of Mr. Juzkow’s declaration. Pet. 42 (citing Ex. 1002 ¶ 501). It is unclear whether the cited testimony is intended to support the Kobayashi argument, the Brenner argument, or both. *Id.* In any

crimping or beading-over process of closing a battery casing, Petitioner offers only attorney argument for the proposition that such a process creates a battery casing that is “held together by a force-fitting connection.” *Id.* But “[a]ttorney argument is not evidence.” *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) (quoting *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017)).

The same is true of Petitioner’s argument that Brenner teaches a battery casing that is “held together by a force-fitting connection.” That argument comprises a single sentence: “Brenner discloses that a radial pressure can be exerted on the edge section of the housing cover on the inner wall of the housing cup by means of the cup bottom constriction, corresponding to a ‘force-fitting connection.’” Pet. 42. Petitioner does not cite any support for this sentence, although there is a citation to paragraph 30 of Brenner at the end of the paragraph in which the sentence appears. *Id.*

case, the cited paragraph does not itself contain any testimony supporting either of Petitioner’s arguments, instead merely directing the reader to “§X.A.1.g” of Mr. Juzkow’s declaration, without specifying the page numbers or paragraph numbers where that section can be found. Ex. 1002 ¶ 501. Section X.A.1.g covers four paragraphs over two pages, and one of those paragraphs contains a further citation to “§IX.A.1.f,” again without providing any assistance in locating that section. *Id.* ¶¶ 402–405. Section IX.A.1.f appears to include eleven additional paragraphs covering six pages and mostly to discuss a reference, Kaun, that is not at issue in this proceeding. *Id.* ¶¶ 125–135. Thus, Petitioner’s citation to the supporting testimony of Mr. Juzkow uses a citation to a single paragraph, without further discussion or elaboration, to direct us to sixteen paragraphs of testimony spread over nine pages of the declaration, including some testimony that is clearly irrelevant to this case. This violates our rule against incorporation by reference. 37 C.F.R. § 42.6(a)(3); see *Apple Inc. v. ContentGuard Holdings, Inc.*, IPR2015-00440, Paper 11, at 7–10 (PTAB July 13, 2015).

To the extent that Petitioner cites Brenner as support for the teaching that creating an indentation on the base of the housing cup generates a radial pressure against the housing top, we agree. Ex. 1005 ¶ 30 (“By indenting the cup base, a radial pressure is generated on the edge portion of the housing cover that abuts against the inner wall of the housing cup.”). To the extent, however, that Petitioner argues that the creation of such a pressure results in a battery that is “held together by a force-fitting connection,” that argument is unsupported for the same reasons that we discussed above with respect to Petitioner’s Kobayashi argument.

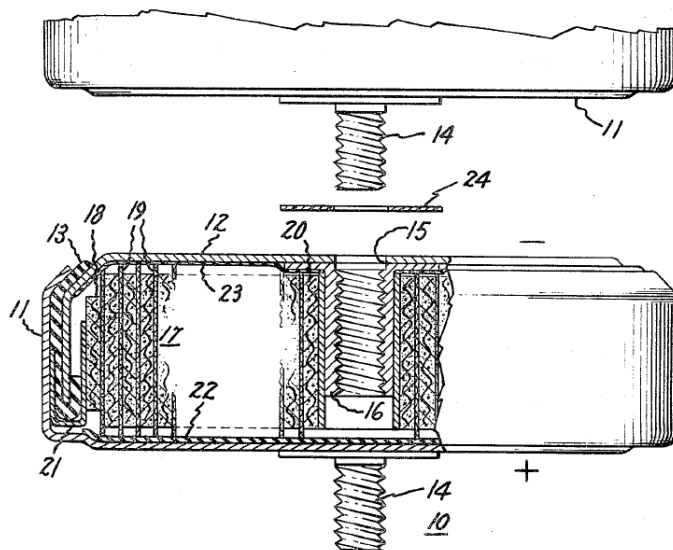
In short, Petitioner directs us to evidence that both Kobayashi and Brenner are closed via crimping processes and to evidence that the crimping process of Brenner generates radial pressure on the housing cover. Ex. 1004 ¶¶ 13, 35; Ex. 1005 ¶ 30. But Petitioner’s argument that such radial pressure results in a battery that is “held together by a force-fitting connection” is, with the exception of the testimony of Mr. Juzkow that is improperly incorporated by reference, supported by nothing other than attorney argument. Pet. 39–42. Thus, Petitioner has not shown sufficiently that either Kobayashi or Brenner teaches the “held together by a force-fitting connection” limitation of the challenged claims, so Petitioner has not shown a reasonable likelihood that any of the challenged claims would have been obvious over the combination of Kobayashi and Brenner.

C. Asserted Obviousness Based on Brown, Higuchi, Arai, Okochi, and Brenner

Petitioner argues that claims 9–16 of the ’913 patent would have been obvious over the combination of Brown, Higuchi, Arai, Okochi, and Brenner. Pet. 52–84. Patent Owner disagrees. Prelim. Resp. 62–67.

1. *Brown*

Brown “relates to cell casings and to sealed batteries and, more particularly, to such cell casings and to such batteries of the sealed button type.” Ex. 1006, 1:21–23. The sole figure of Brown, reproduced below, depicts “at 10 a sealed button type primary cell including a button type cell casing embodying [Brown’s] invention”:



Id. at 1:67–69, Figure. Brown’s Figure depicts “[c]ell 10” having “case 11” and “cover 12,” which “are insulated electrically from each other by an electrically insulating gasket 13 which provides a leak-tight seal therebetween.” *Id.* at 1:70–2:5. The top edges of case 11 are drawn inward over the edges of cover 12. *Id.* at Figure.

2. *Higuchi, Arai, and Okochi*

Higuchi “relates to a coin type non-aqueous electrolyte secondary battery having a high-rate discharge characteristic.” Ex. 1007, 25. Arai “relates to a new energy storage device for storing/releasing electric energy, a module thereof and an electric vehicle using the module.” Ex. 1020 ¶ 1. Okochi “relates to a non-aqueous electrolyte secondary battery having an

electrode group composed of a thin positive electrode and a thin negative electrode with separator material sandwiched therebetween, and more particularly to its safety.” Ex. 1021 ¶ 1.

3. *Analysis*

As discussed above, to show the obviousness of any of the challenged claims, Petitioner must show that the asserted prior art teaches or suggests a “housing cup” and a “housing top” that “are held together by a force-fitting connection.” Petitioner argues that both Brown and Brenner separately teach this “force-fitting connection” limitation, and we address each reference separately below. Pet. 67–71.

With respect to Brown, Petitioner argues that “[c]over 12 and casing 11 are held together in the axial direction by *at least* a static friction force creating an interference fit between the insulating gasket 13 and both the cover 12 and casing 11 with the assistance of a crimping process.” *Id.* at 68–69 (emphasis in original). Petitioner describes this crimping process as involving folding Brown’s case 11 “over both gasket 13 and cover 12.” *Id.* at 69. According to Petitioner, this “crimping seal would therefore be created by the application of pressure in a radial direction to case 11, compressing case 11 against gasket 13 and cover 12.” *Id.* Further, Petitioner argues that “these radial forces would be transmitted throughout the height of case 11, such that portions of case 11 in the overlapping area would likewise be subject to these radial compressive forces,” which “creates force-fitting in at least” the portion of “the vertical sidewall . . . adjacent to the crimping seal.” *Id.* at 69–70. Petitioner also argues that a person of ordinary skill in the art would have known that “compression result[s] from standard crimping and beading over processes” and that “the

sealing gasket 13 of Brown would not function to seal the cell unless there was sufficient contact pressure between case 11, gasket 13, and cover 12 to compress the polymer gasket 13.” *Id.* at 70. Finally, Petitioner argues that “Brown’s use of polyethylene polymers as gasket 13 further renders this frictional force inherent, as a POSITA would recognize that compression of the gasket – and thus a relatively high normal force – is necessary to effectuate a proper seal between cover 12 and case 11.” *Id.*

None of the argument just summarized cites any evidence in support.¹³ *Id.* at 68–70. Although we agree with Petitioner that Brown teaches a crimping or beading-over process of closing a battery casing, Petitioner offers only attorney argument for the proposition that such a process creates a battery casing that is “held together by a force-fitting

¹³ Petitioner cites in this section of the Petition to paragraph 531 of the declaration. Pet. 71 (citing Ex. 1002 ¶ 531). It is unclear whether that citation is intended to provide evidentiary support for Petitioner’s argument with respect to Brown, Petitioner’s argument with respect to Brenner, or both. In any event, paragraph 531 provides no supporting testimony, merely a citation to another portion of the declaration. Ex. 1002 ¶ 531 (citing “§X.B.1.g”). The cited section contains five paragraphs spread over three pages, as well as an additional citation to “§IX.B.1.f.” *Id.* ¶¶ 447–451. That cited section contains an additional six paragraphs over three pages, as well as citations to “§IX.A.1.f” and “§IX.A.1.g.” *Id.* ¶¶ 237–242. Those two sections collectively contain an additional twelve paragraphs over six pages and, in part, discuss a reference, Kaun, that is not at issue in this proceeding. *Id.* ¶¶ 125–136. Thus, Petitioner’s citation to the supporting testimony of Mr. Juzkow uses a citation to a single paragraph, without further discussion or elaboration, to direct us to twenty-three paragraphs of testimony spread over twelve pages of the declaration, including some testimony that is clearly irrelevant to this case. This violates our rule against incorporation by reference.

connection.” *Id.* But “[a]ttorney argument is not evidence.” *Elbit*, 881 F.3d at 1359 (quoting *Icon Health*, 849 F.3d at 1043).

Petitioner also argues that Brenner teaches the “held together by a force-fitting connection” limitation, relying on the argument discussed above with respect to the Kobayashi-Brenner obviousness ground. Pet. 71. As discussed above, we are not persuaded that Petitioner has shown sufficiently that Brenner teaches this limitation.

In short, Petitioner directs us to evidence that both Brown and Brenner are closed via crimping processes and to evidence that the crimping process of Brenner generates radial pressure on the housing cover. Ex. 1005 ¶ 30; Ex. 1006, 1:11–17, 1:25–27, 1:53–58, 2:2–5, 2:61–72, 3:1–18. But Petitioner’s argument that such radial pressure results in a battery that is “held together by a force-fitting connection” is, with the exception of the testimony of Mr. Juzkow that is improperly incorporated by reference, supported by nothing other than attorney argument. Pet. 41–42, 68–71.

Petitioner has not shown sufficiently that either Brown or Brenner teaches the “held together by a force-fitting connection” limitation of the challenged claims, and Petitioner does not argue that any of Higuchi, Arai, or Okochi teaches this limitation. Accordingly, Petitioner has not shown a reasonable likelihood that any of the challenged claims would have been obvious over the combination of Brown, Higuchi, Arai, Okochi, and Brenner.

CONCLUSION

Upon consideration of the Petition, the Preliminary Response, the Preliminary Reply, the Preliminary Sur-Reply, and the evidence presented, we determine that Petitioner has not shown a reasonable likelihood that it

will prevail in showing that at least one of the challenged claims is unpatentable. Accordingly, we do not institute an *inter partes* review of any challenged claim based on any ground asserted in the Petition.

ORDER

It is hereby

ORDERED that, pursuant to 35 U.S.C. § 314, the Petition is denied, and no *inter partes* review is instituted.

IPR2022-01487
Patent 9,799,913 B2

For PETITIONER:

Eric Cohen
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