Trials@uspto.gov
571-272-7822

Paper 9
Entered: January 25, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PHILIP MORRIS PRODUCTS, S.A.,
Petitioner,

v.

RAI STRATEGIC HOLDINGS, INC.,
Patent Owner.

IPR2020-01094
Patent 9,930,915 B2

Before JEFFREY W. ABRAHAM, ELIZABETH M. ROESEL, and MICHELLE N. ANKENBRAND, *Administrative Patent Judges*.

ROESEL, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

Philip Morris Products, S.A. ("Petitioner") filed a Petition (Paper 2, "Pet.") seeking an *inter partes* review of claims 1–5 (the "challenged claims") of U.S. Patent No. 9,930,915 B2 (Ex. 1001, "the '915 Patent"). RAI Strategic Holdings, Inc. ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp."). With the Board's prior authorization, the parties filed additional briefs limited to the issue of discretion to institute pursuant to 35 U.S.C. § 325(d) and *NHK*[1]/*Fintiv*[2]. Paper 7 ("Pet. Reply"); Paper 8 ("PO Sur-reply").

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2020). 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." 35 U.S.C. § 314(a). After considering the parties' arguments and evidence, we determine that Petitioner has shown a reasonable likelihood that it will prevail with respect to at least one claim challenged in the Petition, and we do not exercise our discretion under § 325(d) or § 314(a) to deny institution. Therefore, we grant institution of an *inter partes* review.

Our findings and conclusions below are based on the record developed thus far. This is not a final decision as to the patentability of any

[1] *NHK Spring Co. v. Intri-Plex Technologies, Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential) ("*NHK*").

[2] *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*").

challenged claim. Any final decision will be based on the full record developed during trial.

B. Real Parties in Interest

Petitioner identifies Philip Morris Products, S.A.; Philip Morris International, Inc.; Altria Client Services LLC; and Philip Morris USA as real parties in interest. Pet. 3. Petitioner additionally states that Altria Group, Inc. is not a real party in interest, but nevertheless agrees to be bound by any final written decision in this proceeding. Pet. 3–4 (citing 35 U.S.C. § 315(e)).

Patent Owner identifies RAI Strategic Holdings, Inc.; R.J. Reynolds Vapor Company; RAI Innovations Company; and R.J. Reynolds Tobacco Company as real parties in interest. Paper 4, 1 (Mandatory Notice).

C. Related Matters

The parties identify the following as related matters involving the '915 Patent and the same parties as this proceeding:

> *RAI Strategic Holdings, Inc. v. Altria Client Services LLC*, No. 1:20-cv-00393-LO-TCB (E.D. Va. filed April 9, 2020) ("district court action"); and
>
> *Certain Tobacco Heating Articles and Components Thereof*, Investigation No. 337-TA-1199 (Int'l Trade Comm'n, filed April 9, 2020 and instituted by the Commission on May 11, 2020) ("ITC investigation").

Pet. 3; Paper 4, 2.

Patent Owner identifies IPR2020-01188 and PGR2020-00071 as involving a patent—U.S. Patent No. 10,492,542—that is related to the '915 Patent.

D. The ’915 Patent (Ex. 1001)

The ’915 Patent relates to smoking articles that employ an electrical heating element and an electrical power source to provide an inhalable substance in a vapor or aerosol form, without substantially burning or completely burning tobacco or other substances. Ex. 1001, 2:14–22. The ’915 Patent discloses a reusable control unit that can be used with a disposable smoking article. *Id.* at 6:49–50.

Figure 1 of the ’915 Patent is reproduced below.

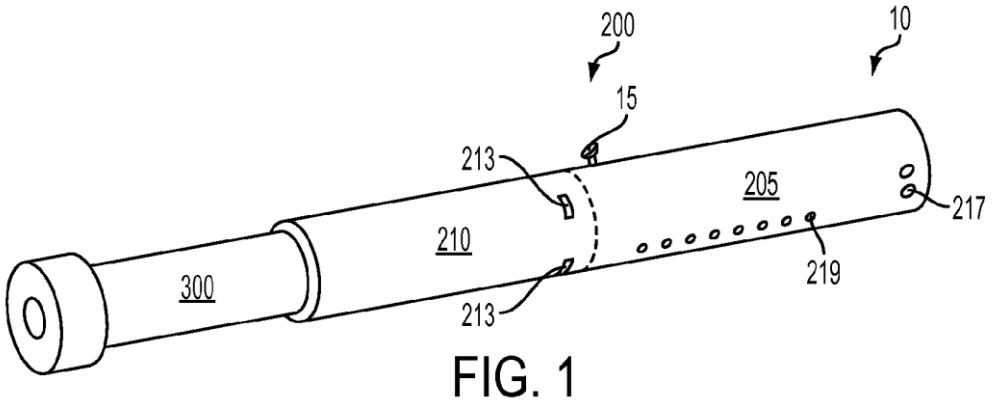


FIG. 1

Figure 1 depicts electronic smoking article 10 including reusable control housing 200 and disposable cartridge 300, which engage one another in a sliding manner. Ex. 1001, 7:44–47, 10:20–24, 11:43–47, 11:55–60. Control housing 200 includes control segment 205 and receiving chamber 210 into which cartridge 300 is inserted. *Id.* at 11:60–63.

Figure 4 of the ’915 Patent is reproduced below.

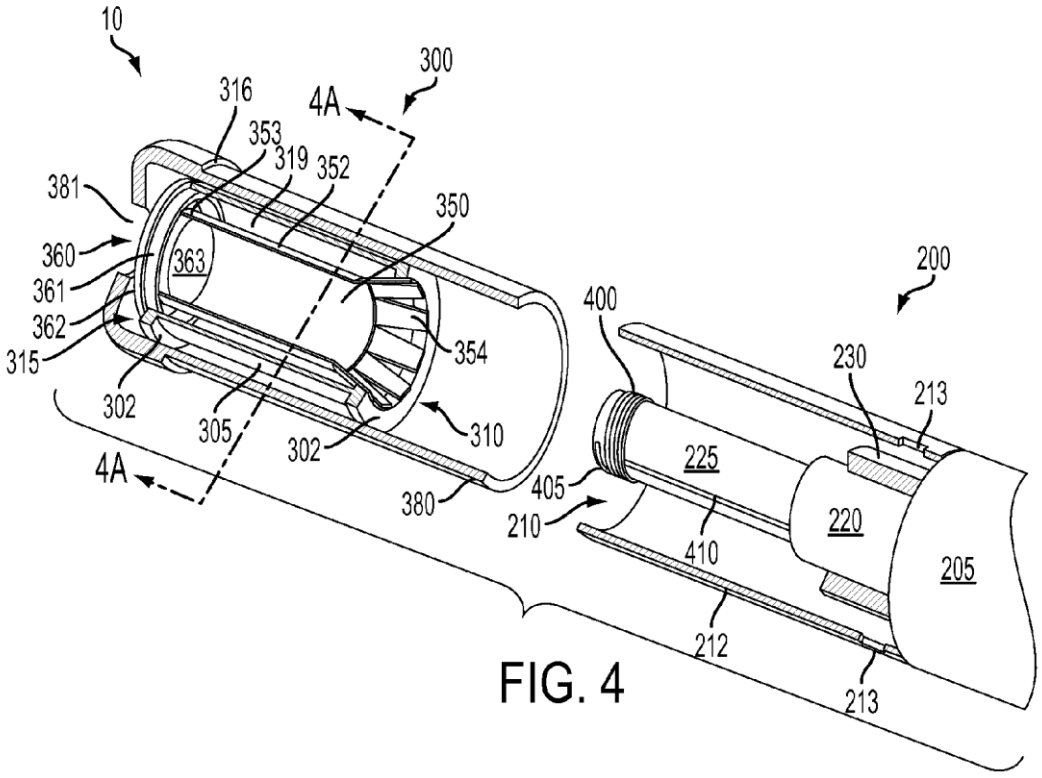


FIG. 4

Figure 4 is a partial cut away view of electronic smoking article 10 with cartridge 300 disengaged from control housing 200. Ex. 1001, 7:54–62, 12:20–24.

As shown in Figure 4, cartridge 300 comprises cartridge body 305 having engaging end 310 that engages receiving chamber 210 of control housing 200 and mouth end 315 that allows passage of an inhalable substance to a consumer. Ex. 1001, 12:24–31. Cartridge body 305 is tubular in shape and retains inhalable substance medium 350, e.g., a tobacco-derived material, which is also tubular in shape and releases an inhalable substance when heated by heating member 400. *Id.* at 12:38–41, 13:4–15, 16:20–22, 16:45–54.

Control housing 200 includes electrical energy source 220 having projection 225 extending therefrom. Ex. 1001, 23:13–18. Electrical energy

source 220 is connected via contacts 410 to electrical heating member 400, which is configured as coil 405 positioned near the terminal end of projection 225. *Id.* at 23:35–40, 24:17–20. Projection 225 is dimensioned to slide inside the interior space defined by inhalable substance medium 350 such that electrical heating member 400 is in proximity to inhalable substance medium 350 to heat the medium and release the inhalable substance. *Id.* at 23:23–29.

Figure 9 of the '915 Patent is reproduced below.

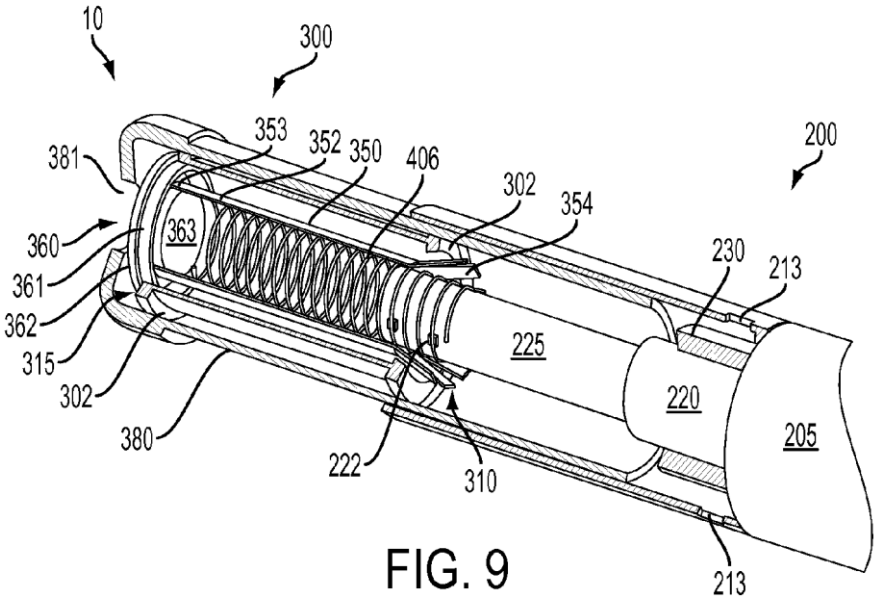


FIG. 9

Figure 9 is a partial cut away view of electronic smoking article 10 with cartridge 300 partially engaged with control housing 200. Ex. 1001, 8:53–62. In the Figure 9 embodiment, the electrical heating member is heating coil 406, which is positioned in the interior space of tubular inhalable substance medium 350 and is a component of cartridge 300, rather than control housing 200. *Id.* at 36:27–36. When the consumer inserts cartridge 300 into control housing 200, electrical leads 222 on projection

225 make an electrical connection with heating coil 406 so as to heat inhalable substance medium 350. *Id.* at 23:48–55, 36:44–56, 37:25–34.

The '915 Patent discloses that "[t]he control unit also can include further components, including an electrical power source (such as a battery), components for actuating current flow into a heating member, and components for regulating such current flow." Ex. 1001, 41:14–21; *see also id.* at 31:41–34:62 (discussing pushbutton and puff-actuated switching, current flow regulation, and electrical power source).

E. Illustrative Claim

The '915 Patent includes claims 1–5, all of which are challenged in the Petition. Claim 1 is the sole challenged independent claim and is reproduced below with emphasis added to key limitations.

> 1. A reusable control unit for use with a disposable smoking article, the reusable control unit comprising a control housing including:
>
> a receiving end for receiving an engaging end of the disposable smoking article and having an electrical energy source that includes ***a projection extending outwardly therefrom and that includes a component that forms an electrical connection with electrical contacts on a separate electrical heating member;*** and
>
> a control unit section that houses a power source, a switching component that actuates flow of electrical current from the electrical energy source to the electrical heating member, and a flow regulating component that regulates a previously initiated current flow from the electrical energy source to the electrical heating member, ***wherein the component that forms an electrical connection with the electrical contacts is located on the projection.***

Ex. 1001, 42:22–39 (emphasis added).

F. Asserted Grounds and Evidence

Petitioner asserts the following grounds of unpatentability:

	Claims Challenged	**35 U.S.C. §**	**Basis**
1	1–5	103(a)[3]	Deevi,[4] Brooks[5]
2	1–5	103(a)	Collins,[6] Brooks

Petitioner relies on a Declaration of Dr. Seetharama C. Deevi. Ex. 1003.

II. ANALYSIS

A. Petitioner's References

1. Deevi (Ex. 1005)

Deevi discloses an electrical smoking article. Ex. 1005, 1:22–25.

Figures 1 and 2 of Deevi are reproduced below.

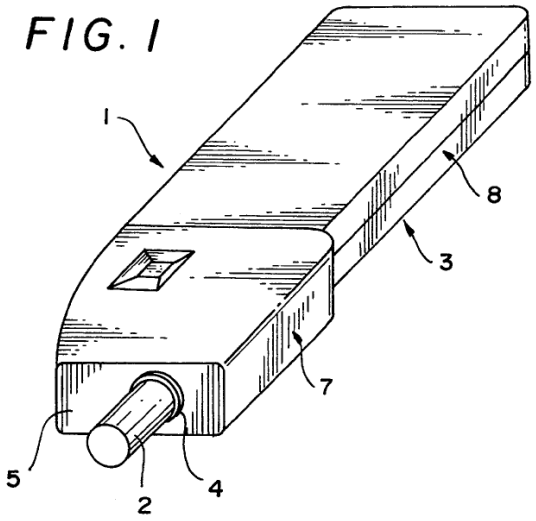
[3] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the '915 Patent has an effective filing date before this date, the pre-AIA version of § 103 applies. Ex. 1001, code (62).

[4] Ex. 1005, US 5,498,855, issued March 12, 1996 ("Deevi").

[5] Ex. 1006, US 4,947,874, issued August 14, 1990 ("Brooks").

[6] Ex. 1007, US 5,505,214, issued April 9, 1996 ("Collins").

FIG. 1



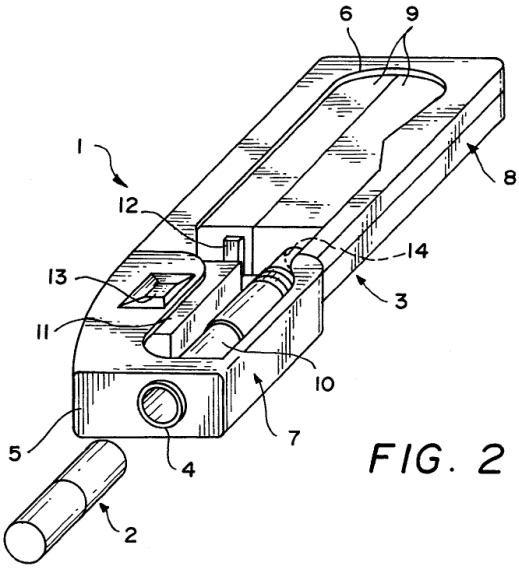


FIG. 2

Deevi Figures 1 and 2 depict electrical smoking article 1, including disposable aerosol generating tube or cigarette 2, which can be inserted in and removed from front end 5 of reusable lighter 3. Ex. 1005, 6:2–5, 6:38–43. Lighter 3 includes housing 6, power source 9, cylindrical heater assembly 10, electrical control circuitry 11, and puff-actuated sensor 12. *Id.* at 6:49–52, 7:15–21, 7:45–50.

Figures 3, 4, and 5 of Deevi are reproduced below.

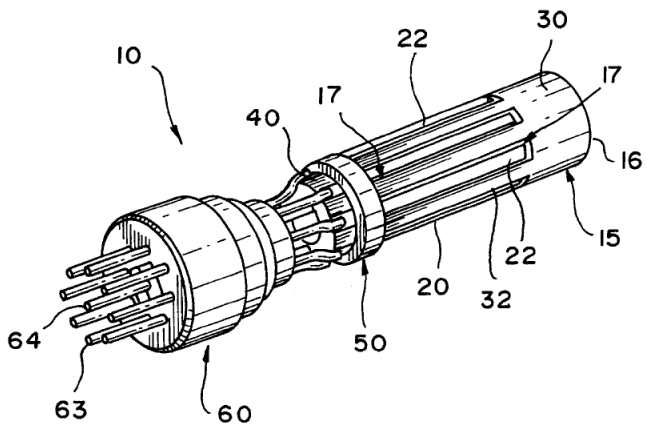


FIG. 3

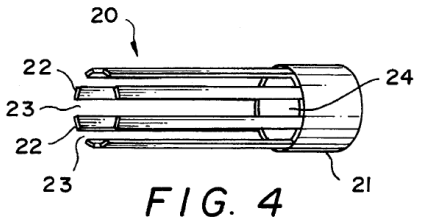


FIG. 4

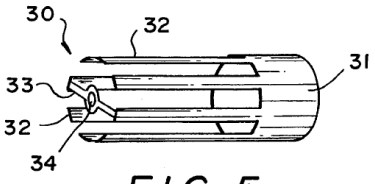


FIG. 5

Deevi Figures 3–5 show heater assembly 10, including ceramic heating element 20, metal cage 30, and pin module 60. Ex. 1005, 6:6–11, 7:21–25, 8:47–48, 11:39–43. As shown in Figures 4 and 5, heater element 20 has hub 21 and blades 22, and cage 30 has hub 31 and barrier blades 32. *Id.* at 7:25–27, 7:31–37, 8:47–48. As shown in Figure 3, heater element 20 and cage 30 together define tube 15 having an alternating cylindrical arrangement of heater blades 22 and barrier blades 32 and open insertion end 16 for receiving cigarette 2. *Id.* at 8:53–58, 11:43–50.

Figure 8 of Deevi is reproduced below.

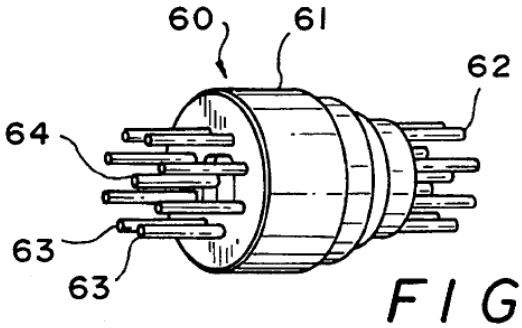


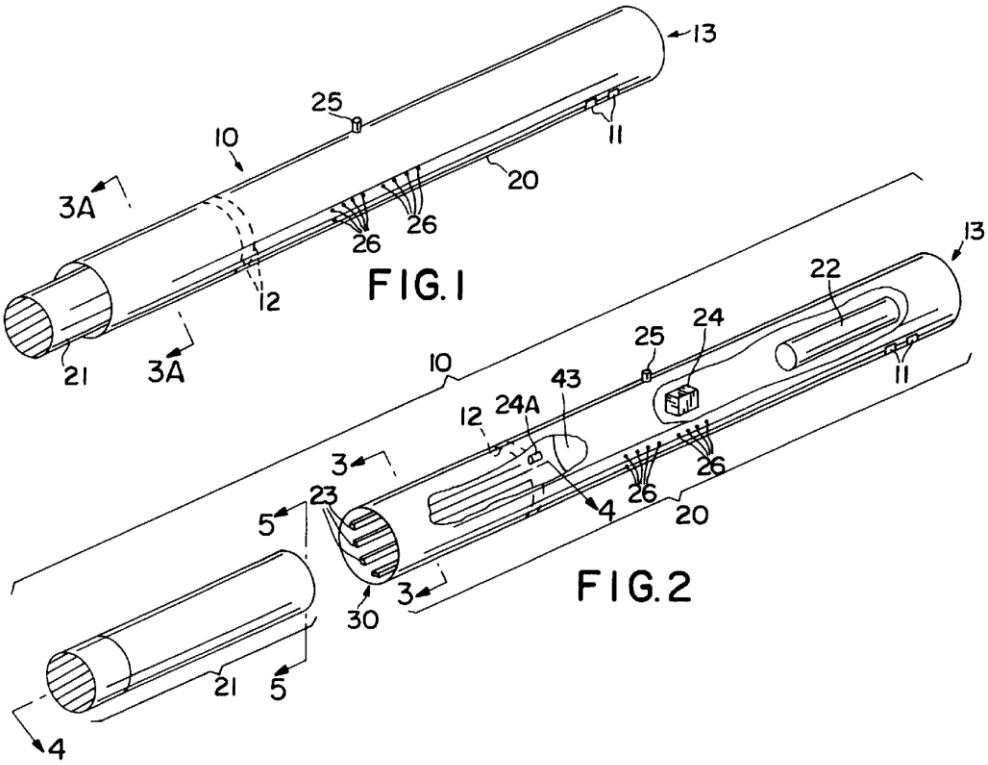
FIG. 8

Deevi Figure 8 shows pin module 60, including lead pins 62 for supplying current to blades 22 of heating element 20. Ex. 1005, 6:16–17, 12:4–5.

2. Collins (Ex. 1007)

Collins discloses an electrically heated smoking article. Ex. 1007, 1:16–19.

Figures 1 and 2 of Collins are reproduced below.



Collins Figures 1 and 2 show electrical smoking article 10, including reusable portion 20 and disposable tobacco flavor unit 21, which is received in cavity 30 at the mouth end of portion 20. Ex. 1007, 3:30–33, 7:32–37. Reusable portion 20 includes power source 22 and heating elements 23, which are energized under the control of control circuit 24, which is in turn actuated by puff-actuated sensor 24A or by pushbutton 25. *Id.* at 7:38–49.

Figure 10 of Collins is reproduced below.

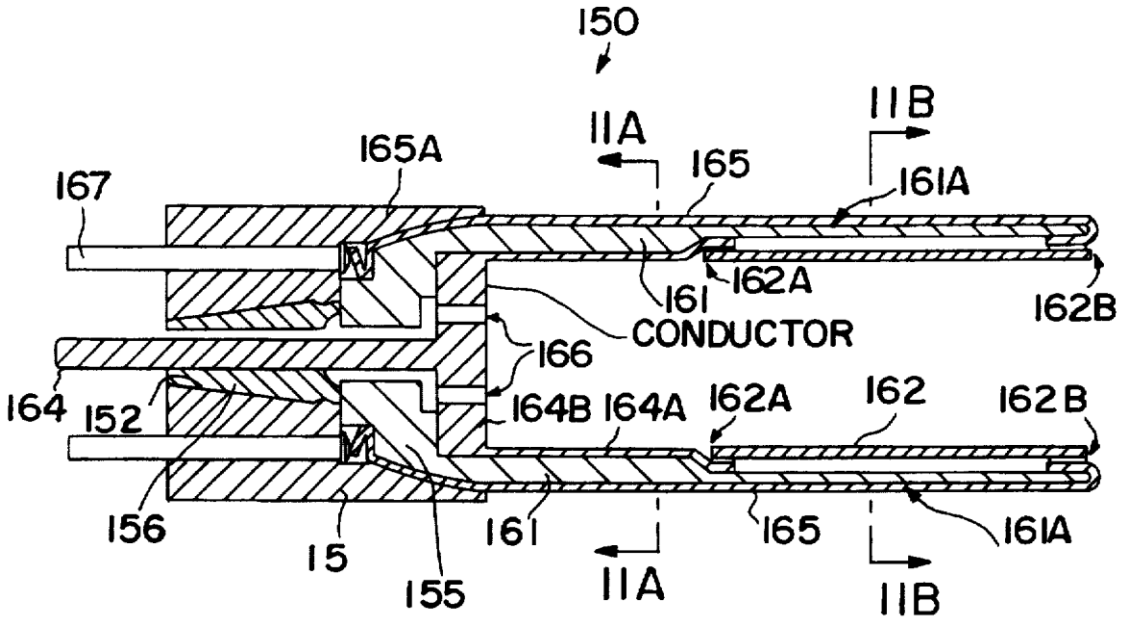


FIG. 10

Collins Figure 10 shows heater unit 150 for an electrical smoking article. Ex. 1007, 4:1–3, 11:46–47. Heater unit 150 includes heater base 151 (mislabeled "15" in Figure 10),[7] heater support 155, and a plurality of circumferentially-spaced heater support arms 161, all made from thermally-stable electrically insulating material. *Id.* at 11:48–51; *see also id.* at Figs. 11A, 11B (showing circumferentially-spaced heater support arms 161).

[7] *See* Pet. 55 n.7; Prelim. Resp. 46.

A plurality of heaters 162 are mounted on heater support arms 161 and have opposite ends 162A and 162B. *Id.* at 11:51–55. Heater ends 162A are all electrically connected to common terminal 164 via conducting fingers 164A and conducting plate 164B. *Id.* at 11:53–60. Heater ends 162B are individually connected to terminals 167 via conducting fingers 165, thereby allowing for individual activation of each heater 162. *Id.* at 11:63–12:1.

3. Brooks (Ex. 1006)

Brooks "relates to cigarettes and other smoking articles such as cigars, pipes, and the like, which employ an electrical resistance heating element and an electrical power source to produce a tobacco flavored smoke or aerosol." Ex. 1006, 1:6–10. Brooks is incorporated by reference in the '915 Patent, which states that Brooks discloses suitable puff-actuated and timer-based controllers, including associated sensors and circuitry. Ex. 1001, 33:35–39, 34:21–25.[8]

Brooks states that its controller provides "accurate and sophisticated" current actuation and regulation. Ex. 1006, code (57), 4:50–5:12.

Brooks discloses a smoking article that includes a cigarette and a reusable, hand-held controller. Ex. 1006, 7:15–16, Fig. 1. The controller includes a case, a puff actuated current actuation mechanism, a time-based current control circuit, and a chamber into which a battery is inserted. *Id.* at 7:20–25, 9:37–39, 9:51–55, Fig. 1. Brooks describes the control circuit in detail with reference to Figures 9 and 10. *Id.* at 9:55–65, 12:12–15,

[8] Petitioner contends that, in the event the claim terms "switching component" and "flow regulating component" are construed under 35 U.S.C. § 112(6), then Brooks discloses these limitations. Pet. 12–14, 38–43, 68–72. Patent Owner does not dispute Petitioner's contention at this stage of the proceeding.

12:39–16:31. Brooks discloses examples in which controllers, including the control circuits shown in Figures 9 and 10, were built and tested. *Id.* at 17:41–18:33 (Example 1), 20:54–21:41 (Example 4).

B. Discretion under 35 U.S.C. § 325(d)

Petitioner argues that § 325(d) does not apply because Petitioner's asserted references—Deevi, Brooks, and Collins—"are buried among the several hundred references listed on the face of the '915 patent and throughout its specification." Pet. 77. Petitioner argues that the Examiner did not consider Deevi and Brooks "at all" and did not consider the relevant teachings of Collins. Pet. 77–78. Petitioner argues that the Examiner erred by neglecting the heater assemblies disclosed in Collins Figure 10 and Deevi. Pet. 80–81; Pet. Reply 1–2.

Patent Owner argues that the Board should deny institution under § 325(d). Prelim. Resp. 21–38. Patent Owner argues that Petitioner's references were drawn to the Examiner's attention during prosecution and that the heater assemblies in Collins and Deevi are not meaningfully different from the heater assemblies in Counts-525[9] and Counts-594,[10] the references applied by the Examiner. *Id.*; PO Sur-reply 1–2.

The statute provides that, in determining whether to institute an *inter partes* review, "the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d).

The Board's most recent precedential decision addressing § 325(d) provides the following two-part framework:

[9] Ex. 1010, US 5,692,525, issued December 2, 1997 ("Counts-525").

[10] Ex. 1011, US 5,388,594, issued February 14, 1995 ("Counts-594").

> (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). *Advanced Bionics* explains that the *Becton, Dickinson* factors[11] provide "useful insight" into how to apply the statutory framework and address "challenging factual questions, such as when a ground of unpatentability presents 'substantially the same prior art or arguments' previously presented to the Office." *Id.* at 9.

Applying the *Advanced Bionics* two-part framework to Patent Owner's arguments, we determine that the art presented in the Petition is the same as the art previously presented to the Office during examination because all of Petitioner's references were cited in an IDS initialed by the Examiner and are listed as cited art on the front face of the '915 Patent.

[11] *Becton, Dickinson* identifies the following non-exclusive factors: (a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which petitioner relies on the prior art; (e) whether petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments. *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph).

Ex. 1001, code (56); Ex. 1002, 93, 96, 193, 196. Although Patent Owner identifies other ways in which Collins and Deevi would have been brought to the Examiner's attention during prosecution (Prelim. Resp. 24–25, 28–29, 32–34), the IDS is sufficient to show that the first part of the *Advanced Bionics* framework is satisfied.

Under the second part of the *Advanced Bionics* framework, we find that Petitioner has demonstrated that the Office erred in a manner material to the patentability of the challenged claims. We agree with Petitioner that the Examiner erred by not expressly considering the heater assembly taught by Collins Figure 10 as it pertains to the "projection" and "component" limitations of the challenged claims. Pet. 80–81.

The Examiner allowed claims 83–87 (corresponding to challenged claims 1–5) following an Examiner's amendment adding the limitation, "wherein the component that forms an electrical connection with the electrical contacts is located on the projection." Ex. 1002, 303–304 (amending claim 83 to incorporate a limitation from dependent claim 92). The Examiner's reasons for allowance identified Counts-525, Counts-594, and Collins as "the nearest prior art." *Id.* at 304. The Examiner found that Counts-594 teaches a component—pins 104—that forms an electrical connection with electrical contacts on a separate heating member, but does not teach that the "component" is "located on the projection," as recited in the amended claim. *Id.* at 305; *see also* Prelim. Resp. 19 (discussing the Examiner's reasons for allowance); PO Sur-reply 2 (same).

We agree with Petitioner that the Examiner did not expressly consider whether Collins teaches a heater assembly that meets the "projection" and "component" limitations and, as it relates to these limitations, the heater arrangement of Collins Figure 10 is not like the heater arrangement of

Counts-594 Figure 3A considered by the Examiner. Pet. 78–81; Pet. Reply 1–2. More specifically, we find that the "component" Petitioner identifies in Collins (conducting fingers 164A and 165) is in a ***materially different position*** relative to a projection, as compared with the "component" the Examiner identified in Counts-594 (pins 104). Pet. 57–59, 78–81; Ex. 1002, 305; Ex. 1007, Fig. 10; Ex. 1011, Fig. 3A.

The Examiner relied on Figure 3A of Counts-594 reproduced below.

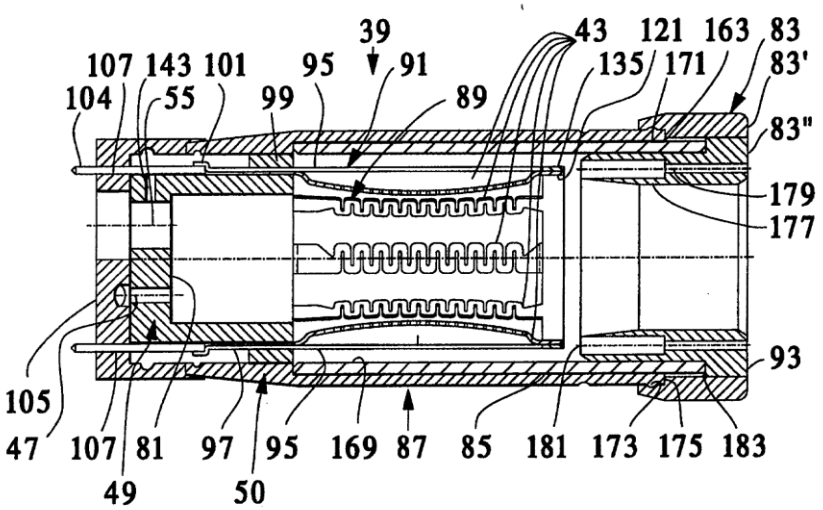
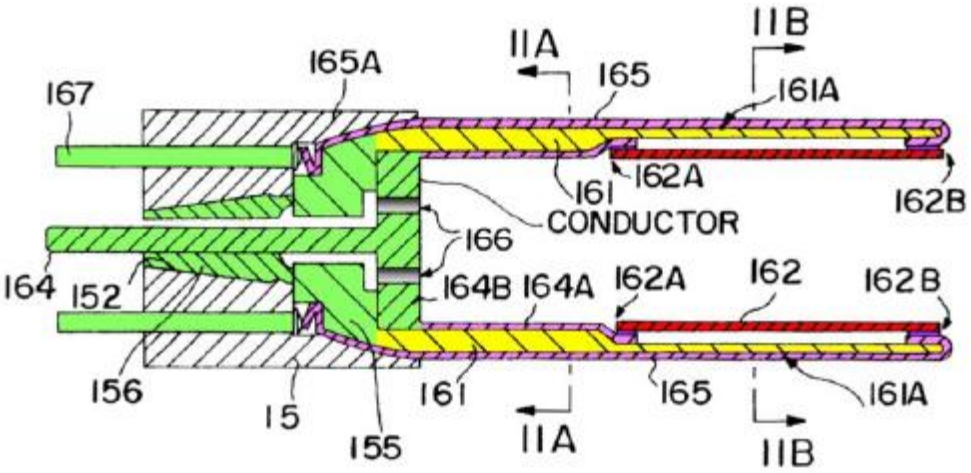


Fig.3A

Counts-594 Figure 3A shows heater assembly 39. Ex. 1011, 3:64–66. Referring to Figure 3A, the Examiner found that elements 85, 97, and 49 correspond to the claimed "projection." Ex. 1002, 236–37 (final rejection); Pet. Reply 2. When allowing the claims, the Examiner found that "electrical connection with electrical contacts on a separate electrical heating member is via pins 104," which are not "located on the projection," as claimed, because they "extend past a bottom outer surface of the assembly that includes the projection" and "are received in corresponding sockets (or receptacles) external to the projection." Ex. 1002, 305.

In contrast, Petitioner relies on the following colored version of Collins Figure 10.



> Collins Figure 10 shows a heater unit for an electrical smoking article.

Pet. 58. Petitioner contends that Collins Figure 10 shows an electrical energy source (green) having a projection (heater support arms 161, yellow) and components (conducting fingers 164A and 165, pink) that form an electrical connection with a separate heating element (heaters 162, red) and that are "located on the projection." Pet. 57–59.

Based on the current record, we find that Collins' conducting fingers 164A and 165 cannot be distinguished from the challenged claims in the same way as the Examiner distinguished pins 104 of Counts-594. Ex. 1002, 305. Unlike pins 104 of Counts-594, Collins' conducting fingers 164A and 165 do not "extend past a bottom outer surface of the assembly that includes the projection." *Id*.

Patent Owner argues that Counts-594 and Collins are "materially similar" and compares pins 104 of Counts-594 to connectors 167 of Collins. Prelim. Resp. 29–30. Patent Owner's argument fails for two reasons. First,

connectors 167 are ***not*** what Petitioner identifies as "the component . . . located on the projection" in Collins. Petitioner identifies Collins' conducting fingers 164A and 165 as such a "component." Pet. 57–59. Second, Patent Owner does not argue that Collins lacks "a component that forms an electrical connection with electrical contacts on a separate electrical heating member . . . wherein the component . . . is located on the projection," as recited in claim 1, and does not challenge Petitioner's contention that Collins' conducting fingers 164A and 165 teach such a component. Patent Owner's § 325(d) argument about Collins is undermined by its failure to present an argument in the Preliminary Response distinguishing Collins from the claim for the same reasons as the Examiner distinguished Counts-594 from the claim.

Patent Owner argues that Deevi "has a very similar structure and at least the same deficiency" as Counts-594. Prelim. Resp. 36. We do not reach Patent Owner's § 325(d) argument about Deevi because we find that Petitioner has met its burden under the second part of the *Advanced Bionics* framework based on Collins. We do, however, discuss Patent Owner's arguments in the context of addressing the merits of Petitioner's Deevi-led ground. *See* Section II.D.5 below.

C. Discretion under 35 U.S.C. § 314(a)

The Petition was filed two months after Patent Owner filed complaints in the district court and the ITC asserting the '915 Patent against Petitioner. *See* Pet. 81–82. Petitioner argues that "[t]he Board should reach the merits of this petition based on its overwhelmingly strong merits and Petitioner's diligence in expeditiously availing itself of the Board's jurisdiction." *Id.*

at 82; *see also* Pet. Reply 6–10 (arguing that a "'holistic' evaluation" of the *Fintiv* factors favors institution).

Patent Owner argues that the Board should deny institution in view of the parallel ITC investigation. Prelim. Resp. 50–58. Patent Owner asserts that an evidentiary hearing in the ITC is scheduled for the same time as the Board's institution decision is due, and the ITC's final determination will pre-date any Final Written Decision in this proceeding by four months. *Id.* at 50.

The Petition in this case was filed one month later than the petition in IPR2020-00919 and at the same time as the petition in IPR2020-01097, which involve the same parties and other patents asserted by Patent Owner against Petitioner in the ITC investigation and district court action. In IPR2020-00919 and IPR2020-01097, the Board discretionarily denied institution under § 314(a) in view of the ITC investigation. *Philip Morris Products v. RAI Strategic Holdings*, IPR2020-00919, Paper 9 (PTAB Nov. 16, 2020) ("919 Decision" or "919 IPR"); *Philip Morris Products v. RAI Strategic Holdings*, IPR2020-01097, Paper 9 (PTAB Jan. 19, 2021) ("1097 IPR").

We determine that the facts of this case as they pertain to *Fintiv* factors 1, 2, 3, and 5 are not significantly different from the facts presented in the 919 IPR, and our analysis of these factors is essentially the same as set forth in the 919 Decision. On the other hand, we determine that the facts of this case as they pertain to *Fintiv* factors 4 and 6 are substantially different from the facts presented in the 919 IPR. Accordingly, we incorporate by reference the Analysis section of the 919 Decision as it pertains to *Fintiv*

factors 1, 2, 3, and 5 (919 Decision at 6–12), and address *Fintiv* factors 4 and 6 below.[12]

1. Fintiv Factor 4: Overlap of Issues

There is no dispute that the Petition challenges the same claims as Petitioner challenges in the ITC. Prelim. Resp. 55; Ex. 1037 (expert report Table of Contents asserting that claims 1–5 of the '915 Patent are invalid). Although Petitioner's initial invalidity contentions in the ITC were broader, Patent Owner "concedes that Petitioner's invalidity assertions in the ITC are no longer identical to the grounds raised here" and that "Petitioner's expert report on validity focused on prior-art products as primary references." Prelim. Resp. 56; PO Sur-reply 7 (citing Ex. 1037, 6).

Petitioner asserts that, "[r]ather than rely on a stipulation, Petitioner pursued in the ITC only grounds that could not reasonably be raised in IPR." Pet. Reply 7. According to Petitioner, its "ITC case relies on prior-art products (Accord E3/E4, JLI, and K models), not printed publications, as the primary references." *Id.* (citing Exs. 1037–1039).

[12] Patent Owner presents substantially the same arguments as to investment for *Fintiv* factor 3 in this case as were presented and considered in the 919 Decision. *Compare* Prelim. Resp. 54–55 (arguing that before the institution decision deadline, the parties will have completed fact discovery, briefed claim construction and participated in a *Markman* hearing, exchanged opening and rebuttal expert reports, and completed expert discovery), *with* IPR2020-00919, Paper 6 at 64 (arguing the same investments except for expert discovery investment). Although the parties may have invested some additional resources over the past two months in preparation for the upcoming evidentiary hearing, we do not see this incremental additional investment as changing our weighing of *Fintiv* factor 3 in this case, as compared to the 919 Decision.

Fintiv factor 4 evaluates "concerns of inefficiency and the possibility of conflicting decisions" when substantially identical prior art is at issue in both proceedings. *Fintiv*, Paper 11 at 12. "[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial." *Id.* "Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution." *Id.* at 12–13.

Under the Board's precedent, one way for a petitioner to avoid overlap, inefficiency, and the possibility of conflicting decisions is to provide a stipulation in the parallel proceeding that it will not pursue any ground raised or that it could have reasonably raised in an IPR, i.e., any ground that it could have raised under §§ 102 or 103 on the basis of prior art patents or printed publications. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 13–14, 18–19 (PTAB Dec. 1, 2020) (precedential) (instituting an *inter partes* review); *see also Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 12 n.5 (PTAB June 16, 2020) (informative).

We agree with Petitioner that basing its ITC prior art invalidity case on alleged prior public use, knowledge, and sale of products, rather than patents or printed publications, as the primary references, under the facts presented here on this record, has the same effect as the stipulation the petitioner provided in *Sotera* and that is discussed in footnote 5 of *Sand Revolution*. The record before us establishes that each of Petitioner's prior art invalidity grounds in the ITC is based on products (Accord E3/E4, JLI, or K models) as the primary references and relies on patents or printed publications only as secondary references. Pet. Reply 7; PO Sur-reply 7;

Ex. 1037. There is no contention that any of Petitioner's ITC invalidity challenges are or could have been raised in an IPR.

The record before us does not support Patent Owner's argument that "the product prior art asserted in the ITC . . . raises many of the same issues" as Collins and Deevi. PO Sur-reply 7. Patent Owner's evidence—an excerpt from an expert report submitted in the ITC investigation (Ex. 2007, 2–4)—compares the Accord K product with Counts-594, not with Collins or Deevi. Moreover, the expert report asserts that the Accord K product does not have a "projection," as claimed, which is a different distinction than the Preliminary Response asserts for either Collins or Deevi. *Id.*

Petitioner's decision to limit its ITC prior art invalidity case to one that primarily relies on allegations of public knowledge, use, and sale of electronic smoking articles mitigates any concerns of duplicative efforts between the ITC and the Board, as well as concerns about potentially conflicting decisions. Petitioner's decision ensures that an *inter partes* review is a "true alternative" to the ITC investigation. *Sotera*, Paper 12 at 19; *Sand Revolution*, Paper 24 at 12 n.5.

Accordingly, in contrast to the 919 IPR, *Fintiv* factor 4 weighs strongly against exercising discretion to deny institution.

2. Fintiv Factor 6: Other Circumstances, Including the Merits

Patent Owner argues that "the Petition lacks merit for at least one reason for each ground and thus the merits of the Petition are not 'particularly strong.'" Prelim. Resp. 56 (quoting *Fintiv*, Paper 11 at 14). Petitioner, on the other hand, argues that "[t]he petition's strong merits . . . favor institution." Pet. Reply 9.

Under the Board's precedent, "the factors considered in the exercise of discretion are part of a balanced assessment of all the relevant circumstances in the case, including the merits." *Fintiv*, Paper 11 at 14. "For example, if the merits of a ground raised in the petition seem particularly strong on the preliminary record, this fact has favored institution." *Id.* at 14–15. "By contrast, if the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present." *Id.* at 15.

Based on the current record and for the reasons discussed below, we determine that Petitioner's Collins-led ground is particularly strong and that Petitioner's Deevi-led ground is a closer call.

Accordingly, in contrast to the 919 IPR, *Fintiv* factor 6 weighs against exercising discretion to deny institution in this case.

3. Balancing the Fintiv Factors

Under *Fintiv*, we are required to take "a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Fintiv*, Paper 11 at 6. Applying this approach, we determine that the facts of this case, particularly as they relate to *Fintiv* factors 4 and 6, justify a different result than in the 919 IPR and the 1097 IPR. More particularly, we determine that, on balance, Petitioner's decision to limit its ITC prior art invalidity case to grounds that cannot be asserted in an *inter partes* review, the strength of the Petition on the merits, and the investment to date in the ITC investigation coupled with Petitioner's diligence in filing the Petition outweigh the ITC evidentiary hearing occurring simultaneously with the due date for this Decision and the ITC's target date for a final determination occurring four months prior to the

projected due date for a final decision, where the ITC investigation involves the same parties and the same challenged claims as this proceeding.

D. Reasonable Likelihood under 35 U.S.C. § 314(a)

1. Legal Standards

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter 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. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on 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, when presented, (4) objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of "whether there was an apparent reason to combine the known elements in

the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2016) (requiring "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). Petitioner cannot satisfy its burden of proving obviousness by employing "mere conclusory statements," but "must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

2. Level of Ordinary Skill in the Art

Petitioner provides the following contention regarding a person of ordinary skill in the art ("POSA"):

> A POSA at the time of the purported invention (the August 2011 timeframe) would have had a Bachelor's degree in mechanical engineering, electrical engineering, chemistry, or physics, or a related field, and three to four years of industry experience, or a Master's degree in mechanical engineering, electrical engineering, chemistry, or physics, or a related field, and one to two years of industry experience. Such a POSA would have been familiar with electrically powered smoking articles and/or the components and underlying technology used therein.

Pet. 11 (citing Ex. 1003 ¶¶ 26–30). Patent Owner accepts Petitioner's description of a POSA for purposes of the Preliminary Response. Prelim. Resp. 20. For purposes of this Decision, we accept Petitioner's contention, which is supported by Dr. Deevi's testimony (Ex. 1003 ¶ 28) and is consistent with the scope and content of the '915 Patent and the asserted prior art.

3. Claim Construction

In an *inter partes* review, we apply the same claim construction standard as would be used by a district court to construe a claim in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b). Under that standard, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012).

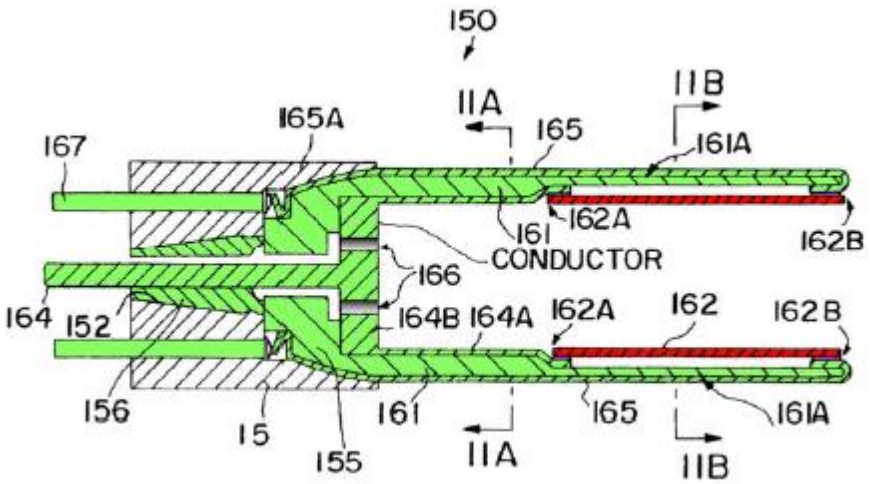
The Petition is based on alternative constructions for the terms "switching component" and "flow regulating component." Pet. 12–14. According to Patent Owner, its arguments for denial of institution "do not require addressing the construction of claim terms." Prelim. Resp. 20.

We determine that no claim term requires express construction for purposes of this Decision. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy."); *see also Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of *inter partes* review).

4. Petitioner's Collins-led Ground

Petitioner challenges claims 1–5 based on Collins and Brooks. Pet. 6, 46–75. Patent Owner opposes. Prelim. Resp. 45–49. Our analysis focuses on the limitation that Patent Owner argues is not described by Collins: "an electrical energy source." *Id.* at 38; Ex. 1001, 42:37–39.

Petitioner contends that Collins discloses an electrical energy source that "includes all of the components of its heater assembly . . . except the heaters 162 and the base into which the assembly is inserted." Pet. 55 (footnote omitted). Petitioner illustrates its contention with the following annotation of Collins Figure 10, in which the structures Petitioner identifies as corresponding to an "electrical energy source" are colored green and heaters 162 are colored red.



Collins Figure 10 shows a heater unit for an electrical smoking article.

Pet. 56. Petitioner contends that "[l]ike the 'electrical energy source' in the '915 patent, Collins' electrical energy source provides for transmission of electrical current from the power source to the heating member." *Id.* (citing Ex. 1003 ¶¶ 245–248; Ex. 1007, 11:53–12:11).

Patent Owner argues that, in Collins, "terminals 167 are part of heater base 151" and "a separate heater support 155 (and associated structure) snap fits into the heater base and into electrical contact with terminals 167." Prelim. Resp. 47 (citing Ex. 1007, 11:47–50, 11:65–12:11). According to Patent Owner, Collins' "heater support 155 (and thus heaters 162) is

removable from heater base 151 (and terminals 167)." *Id.* at 48 (citing Ex. 1007, 12:6–11, 12:27–42). Patent Owner argues that "[t]he terminals and separate heater support structure in [Collins] do not teach the electrical energy source as recited in claim 1." *Id.*

We understand Patent Owner to be arguing that an "electrical energy source," as recited in the claim, cannot comprise multiple components that are separable from each other. We disagree. The claims of the '915 Patent recite "an electrical energy source" that includes multiple components—a "projection" and a "component" and possibly also a "capacitor"—without restriction on how they are connected together. Ex. 1001, 42:26–30, 42:42–43 (claims 1 and 3). The Specification likewise discloses a multi-component electrical energy source. When describing the Figure 9 embodiment, the '915 Patent discloses electrical energy source 220 that provides power to an electrical heating member and includes projection 225 extending therefrom, where electrical leads 222 on the projection make an electrical connection with the electrical heating member. *Id.* at 23:13–18, 23:48–55, 37:25–34, 40:67–41:5, 41:10–14.

Petitioner directs us to Patent Owner's contentions in the ITC, where Patent Owner identifies an "electrical energy source" as corresponding to "subcomponents that, combined, provide the mechanical and electrical connections in the power unit that mate with corresponding components in the cartridge." Ex. 1041, 1 (representative claim chart of domestic industry for claim 1 of the '915 Patent); *see* Pet. Reply 10.

According to Petitioner, Collins's "electrical energy source" includes heater support 155, heater neck 156, heater support arms 161, common terminal 164, conducting fingers 164A, conducting plate 164B, conducting fingers 165 with bends 165A, and individual terminals 167. Pet. 56

("electrical energy source" includes structures colored green in Petitioner's annotation of Collins Figure 10); Ex. 1007, 11:46–12:11 (describing Figure 10). Patent Owner is correct that, in Collins, terminals 167 are part of heater base 151 and "heater support 155 'snap fits' into heater base 151" to provide electrical contact between terminals 167 and heaters 162 via bends 165A of conducting fingers 165. Ex. 1007, 11:63–12:10. In our view based on the current record, however, this "snap fit" connection between separate parts that together transmit electric power to heaters 162 does not take Collins' disclosure outside the scope of an "electrical energy source," as recited in the claim.

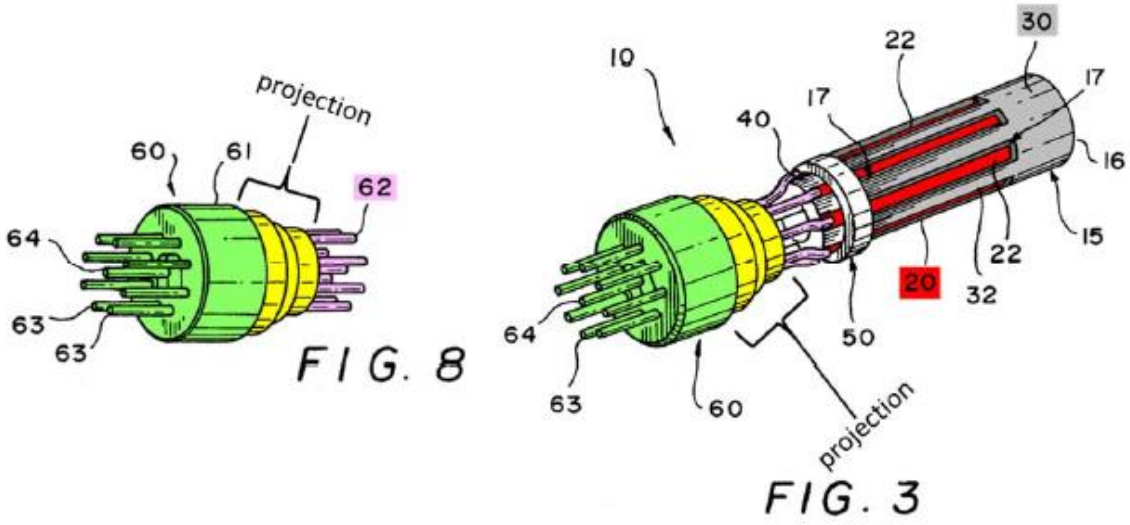
Although our discussion focuses on the claim element disputed by Patent Owner, we have reviewed Petitioner's contentions for all elements of the challenged claims, as well as Petitioner's contentions regarding a reason for combining the teachings of Collins and Brooks and Patent Owner's counterarguments (Prelim. Resp. 49) and determine that Petitioner's Collins-led ground meets the threshold for institution of an *inter partes* review.

Accordingly, we determine that Petitioner's arguments and evidence are sufficient to show a reasonable likelihood of establishing that at least one claim is unpatentable over Collins, alone or in view of Brooks.

5. Petitioner's Deevi-led Ground

Petitioner challenges claims 1–5 based on Deevi and Brooks. Pet. 6, 14–46. Patent Owner opposes. Prelim. Resp. 38–45. Our analysis focuses on the limitation that Patent Owner argues is not described by Deevi: "the component that forms an electrical connection with the electrical contacts is located on the projection." *Id.* at 38; Ex. 1001, 42:37–39.

Petitioner contends that Deevi discloses an electrical energy source (pin module 60) that includes a projection, which Petitioner identifies and colors yellow in the annotation of Deevi Figures 8 and 3 below.



> Deevi Figure 3 shows a heater assembly, and Deevi Figure 8 shows a pin module.

Pet. 29; *see also* Pet. 25 (Deevi's "pin module 60 corresponds to the electrical energy source, providing for the transmission of electrical current from the power source to the heating member 20 (red).").

Petitioner contends that Deevi discloses a component (lead pins 62, colored pink in Petitioner's annotations) that forms an electrical connection with electrical contacts (tips of heater blades 22, colored red in Petitioner's annotations) on a separate electrical heating member (heating element 20, colored red in Petitioner's annotations). Pet. 26, 31–32. Petitioner contends that Deevi's lead pins 62 (pink) are "located on the projection" (yellow), as recited in claim 1, because "they are physically located on the projection" and "[t]he claims do not forbid the component from extending beyond the surface of the projection—as objects located on another object commonly do." Pet. 32–33 (citing Ex. 1003 ¶ 157). Dr. Deevi analogizes Deevi's lead

pins 62 of pin module 60 to petals on a flower, woody scales on a pine code, racks on an elk, and domes on capitol buildings. Ex. 1003 ¶ 157.

Patent Owner argues that "pins 62 are not located on a projection of an electrical energy source" in Deevi in the same way the Examiner found that "pins 104 are not located on a projection of an electrical energy source" in Counts-594. Prelim. Resp. 36–37. Patent Owner argues that Deevi's pins 62 are not "located on the projection" because they "extend below the bottom surface and beyond the top surface of main body 61" of pin module 60 and "pass into one end and out of the opposite end of main body 61." *Id.* at 37–38. Similarly, Patent Owner argues that Deevi's pins 62 (colored pink in Petitioner's annotations) are "not located on a projection of the electrical energy source" because they "extend completely through opposite ends of main body 61 and are not located on a projection of the main body." *Id.* at 40. Patent Owner argues that "none of Dr. Deevi's examples are anything like pins 62 that extend from well below the bottom end of main body 61, through the main body, and out the opposite end." *Id.* at 42.

We agree with Patent Owner that Deevi's lead pins 62 are somewhat like pins 104 of Counts-594, which the Examiner found are not "located on the projection." Ex. 1002, 305. To illustrate this point, we provide the following side-by-side comparison of Petitioner's annotation of Deevi Figure 3 and Counts-594 Figure 3A, which we have colored to identify corresponding parts with like colors.

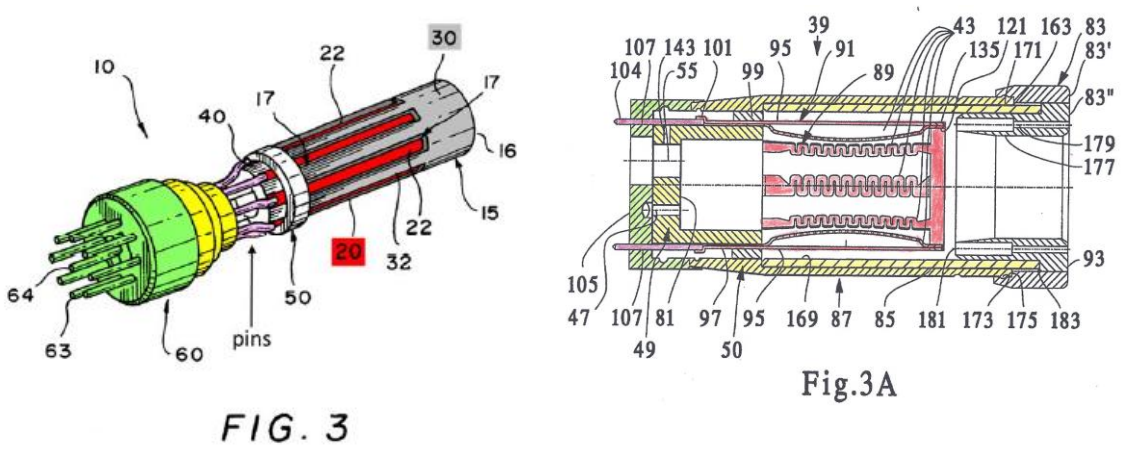


Figure 3 of Deevi (on the left) and Figure 3A of Counts-594 (on the right) each show a heater assembly.

Pet. 31; Ex. 1011, Fig. 3A (annotated).[13] We also agree with Patent Owner that Petitioner's annotation of Deevi Figure 3 and other similarly annotated figures may create the misimpression that Deevi's lead pins 62 (colored pink in Petitioner's annotations) are separate from input ends 63 (colored green in Petitioner's annotations) when they are, in fact, the same pins. Prelim. Resp. 40. Patent Owner is correct that Deevi's lead pins 62 extend completely through opposite ends of main body 61 of pin module 60, protruding below the bottom surface and beyond the top surface of main body 61. *Id.* at 37–38, 40; Ex. 1005, 12:12–14.

As discussed above, the Examiner found that, in Counts-594, pins 104 are not "located on the projection," as claimed, because they "extend past a bottom outer surface of the assembly that includes the projection" and "are received in corresponding sockets (or receptacles) external to the

[13] As discussed above, the Examiner found that, in Counts-594 Figure 3A, elements 85, 97, and 49 correspond to the claimed "projection extending outwardly" from an electrical energy source, and pins 104 are "a component that forms an electrical connection with electrical contacts on a separate heating member." Ex. 1002, 236–37, 305.

projection." Ex. 1002, 305. Patent Owner presents a plausible argument that the same distinction applies to Deevi's lead pins 62. Prelim. Resp. 37–38, 40, 42. On the other hand, Petitioner and Dr. Deevi present a plausible argument that "[t]he claims do not forbid the component from extending beyond the surface of the projection." Pet. 32–33; Ex. 1003 ¶ 157.

We invite the parties to develop these issues further during the trial, to the extent permitted under our rules.

III. CONCLUSION

After considering the Petition and the Preliminary Response, we determine that the information presented establishes a reasonable likelihood that Petitioner would prevail in showing that at least one claim of the '915 Patent is unpatentable. Accordingly, we institute an *inter partes* review of all challenged claims on all grounds asserted in the Petition. *See Guidance of the Impact of SAS on AIA Trial Proceedings* (Apr. 26, 2018) ("*SAS* Guidance") (explaining that "the PTAB will institute as to all claims or none" and "if the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition").

At this stage of the proceeding, we have not made a final determination with respect to the patentability of any challenged claim or any underlying factual or legal issues.

IV. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–5 of the ’915 Patent is instituted commencing on the entry date of this Decision; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of trial.

For PETITIONER:

Jonathan M. Strang
Matthew J. Moore
Dale Chang
Lesley M. Hamming
LATHAM & WATKINS LLP
jonathan.strang@lw.com
matthew.moore@lw.com
dale.chang@lw.com
lesley.hamming@lw.com

For PATENT OWNER:

David M. Maiorana
Anthony M. Insogna
Kenneth S. Luchesi
Geoffrey K. Gavin
Joshua R. Nightingale
George N. Phillips
Gasper J. LaRosa
JONES DAY
dmaiorana@jonesday.com
aminsogna@jonesday.com
kluchesi@jonesday.com
ggavin@jonesday.com
jrnightingale@jonesday.com
gphillips@jonesday.com
gjlarosa@jonesday.com