UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

R.J. REYNOLDS VAPOR COMPANY, Petitioner,

v.

FONTEM HOLDINGS 1 B.V., Patent Owner.

> Case IPR2017-01642 Patent 9,370,205 B2

Before JOSIAH C. COCKS, GRACE KARAFFA OBERMANN, and JO-ANNE M. KOKOSKI, *Administrative Patent Judges*.

KOKOSKI, Administrative Patent Judge.

DECISION Denying Institution of *Inter Partes* Review 37 C.F.R. § 42.108

I. INTRODUCTION

R.J. Reynolds Vapor Company ("Petitioner") filed a Petition ("Pet.") to institute an *inter partes* review of claims 1–22 of U.S. Patent No. 9,370,205 B2 ("the '205 patent," Ex. 1001). Paper 2. Fontem Holdings 1 B.V. ("Patent Owner") filed a Preliminary Response ("Prelim. Resp."). Paper 9.

Institution of an *inter partes* review is authorized by statute when "the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314; *see* 37 C.F.R. §§ 42.4, 42.108. Upon consideration of the Petition and Preliminary Response, and the evidence of record, we determine that the Petition presents substantially the same prior art or arguments as those previously presented to the Office, and, thus, exercise our discretion under 35 U.S.C. § 325(d) to deny institution of an *inter partes* review as to claims 1–22 of the '205 patent.

A. Related Proceedings

The parties indicate that the '205 patent is asserted in *Fontem Ventures B.V. v. R.J. Reynolds Vapor Company*, Case No. 16-cv-01258 (M.D.N.C.) (prior Civil Action No. 16-CV-4534 GW (MRW), C.D. Cal.). Pet. 2; Paper 3, 2. Petitioner also is challenging the '205 patent in IPR2017-01641. Pet. 7; Paper 3, 9.

B. The '205 Patent

The '205 patent, titled "Electronic Cigarette," is directed to an electronic cigarette that includes a battery assembly, an atomizer assembly, and a cigarette bottle assembly. Ex. 1001, Abstract.









Figure 2A is a side view of the battery assembly, Figure 3 is a diagram of the atomizer assembly, and Figure 4 is a diagram of the cigarette bottle assembly. *Id.* at 1:45–47. The battery assembly includes lithium ion battery 203, MOSFET electric circuit board 205, and sensor 207 within primary shell 211. *Id.* at 2:4–8. The battery assembly is fastened to the atomizer assembly via screw thread electrode 209. The atomizer assembly includes internal thread electrode 302, air-liquid separator 303, atomizer 307, and secondary shell 306. *Id.* at 2:32–34. Air-liquid separator 303 and atomizer 307 are connected successively with internal thread electrode 302. *Id.* at 2:38–40. The cigarette bottle assembly includes cigarette liquid bottle 401, fiber 402, and suction nozzle 403. *Id.* at 2:47–49. Fiber 402, which contains cigarette liquid, is located on the end of cigarette liquid bottle 401 that is

inserted into secondary shell 306 and lies against atomizer 307. *Id.* at 2:49–52.

The '205 patent teaches that the cigarette liquid in fiber 402 soaks micro-porous ceramics 801 inside atomizer 307 (depicted in Figures 8 and 10, not shown) through fiber 402. *Id.* at 3:6–8. Air entering through air intake hole 502 passes through the run-through hole on air-liquid separator 303 and helps to form an air-liquid mixture in spray nozzle 304 of atomizer 307. *Id.* at 3:9–12. The air-liquid mixture sprays onto heating body 305, is vaporized, absorbed into the airflow and condensed into aerosol, which passes through air intake hole 503 and suction nozzle 403 to form white mist type aerosol. *Id.* at 12–16.

The '205 patent further teaches that, in addition to micro-porous ceramics, the liquid supply material of atomizer 307 may also be foamed ceramics, micro-porous glass, foamed metal, stainless steel fiber felt, terylene fiber, nylon fiber, nitrile fiber, aramid fiber, or hard porous plastics. *Id.* at 3:23–27. Heating body 305 "is made of the micro-porous ceramics on which nickel-chromium alloy wire, iron-chromium alloy wire, platinum wire, or other electro thermal materials are wound," or "may be a porous component directly made of electrically conductive elements or PTC (Positive Temperature Coefficient) ceramics and associated with a sintered electrode." *Id.* at 3:27–33.

C. Challenged Claims

Petitioner challenges claims 1–22 of the '205 patent, of which claims 1, 9, and 16 are independent. Claim 1 is representative, and is reproduced below.

- 1. A vaporizing device comprising:
- a battery assembly comprising a battery, a sensor, an LED and a micro-controller unit electrically connected to a circuit board within a tubular battery assembly housing;
- a first electrode at an end of the battery assembly housing;
- an atomizer assembly comprising an atomizer and a liquid supply in a tubular atomizer assembly housing;
- with the atomizer including a heater wire coil wound around a porous body, with the heater wire coil and the porous body positioned perpendicular to a longitudinal axis of the tubular atomizer assembly housing;
- the heater wire coil and the porous body in an airflow path through the tubular atomizer assembly housing leading to a suction nozzle wherein air passes across the heater wire coil and the porous body;
- a second electrode at an end of the atomizer assembly housing; and
- the battery assembly and the atomizer assembly electrically connected by engagement of the first electrode with the second electrode, and with electricity conducted from the battery to the heater wire coil through the first and second electrodes.

Ex. 1001, 4:44–65.

D. The Asserted Ground of Unpatentability

Petitioner challenges the patentability of claims 1-22 of the '205

patent under 35 U.S.C. § 103 as being obvious over the combined teachings

of Brooks¹ and Whittemore.² Pet. 10.

¹ U.S. Patent No. 4,947,874, issued Aug. 14, 1990 (Ex. 1002).

² U.S. Patent No. 2,057,353, issued Oct. 13, 1936 (Ex. 1003).

II. ANALYSIS

Institution of *inter partes* review is discretionary. *See* 35 U.S.C. § 314(a); 37 C.F.R. § 42.108. Our discretion on whether to institute is guided by 35 U.S.C. § 325(d), which states that "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." Patent Owner contends that Whittemore and the disclosure of Brooks were "considered by the Examiner during prosecution of the '205 Patent." Prelim. Resp. 38. We, therefore, first examine whether the ground asserted in the instant Petition presents "the same or substantially the same prior art or arguments" as those previously presented to the Office. Then, we determine whether it is appropriate to exercise our discretion to deny institution.

A. Prosecution History of the '205 Patent

The '205 patent issued from U.S. Patent Application No. 13/754,521 ("the '521 Application"). Whittemore was cited to the Examiner via an Information Disclosure Statement ("IDS") filed on March 20, 2013. Ex. 2020, 2. The same IDS also cited U.S. Patent No. 4,947,875 ("the '875 patent," Ex. 2018) and EP Publication No. 0 358 002 A ("the EP Publication," Ex. 2019). *Id.* at 2, 3. On September 23, 2015, the Examiner indicated that Whittemore, the '875 patent, and the EP Publication were considered by appending the following to the bottom of the IDS: "ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THOUGH. /D.W.M/." *Id.* Whittemore, the '875 patent, and the EP Publication are listed in the "References Cited" section of the '205 patent. Ex. 1001 at [56].

In an Office Action dated September 25, 2015 (Ex. 3001), pending claims 2, 3, and $11^{3,4}$ were rejected under 35 U.S.C. § 103(a) over a combination of three references, including Whittemore. Ex. 3001, 7–8. In that rejection, the Examiner stated that Whittemore discloses a vaporizing unit with a heating coil wound around a porous component in the atomizer, and teaches a wick surrounded by a coiled heating element where the wick is always in contact with the heating element, and a portion of the wick is always in contact with a liquid medicament. *Id*.

In response to the September 25, 2015 Office Action, an Amendment (Ex. 3002) was filed in which pending claims 1–15 were cancelled and new claims 16–37 were added. Ex. 3002, 1–5. New independent claim 16 recited "the atomizer including a heater wire coil wound around a porous body, with the heating wire coil positioned perpendicular to a longitudinal axis of the tubular atomizer assembly housing," new independent claim 23 recited "the atomizer including a heater wire coil wound on a porous body, and the heater wire and the porous body perpendicular to a longitudinal axis

³ Pending claims 2 and 3 depended, directly or indirectly, from pending independent claim 1. Pending claim 1 recited, in relevant part, "an atomizer assembly having an atomizer assembly housing containing an atomizer, liquid storage, and a secondary screw thread electrode having a through hole on one end of the atomizer assembly housing." Ex. 1006, 21. Pending claim 2 further recited "with the atomizer including a heater coil wound around a porous component;" pending claim 3 depended from claim 2 and further required that "the porous component includes a fiber material." *Id.* ⁴ Pending claim 11 depended directly from independent claim 10, which recited, in relevant part, "an atomizer assembly having an atomizer assembly housing." Ex. 1006, 22. Claim 11 further recited "with the atomizer including a heater coil wound around a fiber material." *Id.* at 23.

of the tubular atomizer assembly," and new independent claim 30 recited "the atomizer including a heater wire wound in a coil on a part of the porous body which is perpendicular to a longitudinal axis of the tubular atomizer assembly." *Id.* at 2–5. In response to that Amendment, a Notice of Allowability was mailed on April 20, 2016. Ex. 3003. Pending claim 16 issued as independent claim 1, pending claim 23 issued as independent claim 9, and pending claim 30 issued as independent claim 16 in the '205 patent.

B. Petitioner's Arguments

Petitioner contends that "Brooks discloses all the claimed features" of claims 1–22 of the '205 patent except "a heater coil wound around a porous component," and "[t]hat teaching is provided by Whittemore." Pet. 23. For example, Petitioner contends that Brooks teaches "an atomizer assembly housing in the form of tube 68 and collar 49, which houses an atomizer formed by heating element 18 and insulative tube 66." Id. at 38. Petitioner contends that "Brooks discloses that its heating element can constitute a 'metal wire,' and further discloses that the heating element can constitute a heating component in 'intimate contact' with 'porous substrates." Id. at 24. Petitioner also contends that "[o]ne such 'intimate contact' configuration is a heating wire coil[] wound around a porous wick as taught by Whittemore." Id. According to Petitioner, a person having ordinary skill in the art "would have understood that Whittemore's coiled heating wire/wick configuration was one of a finite number of predictable ways for arranging a resistance heating component in 'intimate' contact with a porous substrate as taught by Brooks." Id. at 25 (citing Ex. 1004 \P 64). Petitioner further contends that "Brooks also discloses embodiments where either a portion of the heating element . . . or the entirety of the heating element . . . is perpendicular to the

longitudinal axis of the tubular atomizer assembly housing of cigarette or cartridge 12." *Id.* at 45–46 (citing Ex. 1002, 7:65–8:3, 24:22–24).

C. Same or Substantially the Same Prior Art or Arguments

1. Brooks

Patent Owner argues that Brooks is cumulative to the disclosures in the '875 patent and the EP Publication, and, thus, the disclosure of Brooks was considered by the Examiner during the prosecution of the '205 patent. Prelim. Resp. 38–41.⁵ Accordingly, an analysis under 35 U.S.C. § 325(d) for this proceeding requires that we determine whether or not the disclosures of Brooks relied upon by Petitioner here were presented to, and considered previously by, the Office in the contents of the '875 patent and the EP Publication.

a. Comparison of Brooks with the '875 Patent and EP Publication

Brooks and the '875 patent name the same inventors (Johnny L. Brooks, Donald L. Roberts, and Jerry S. Simmons), are assigned to the same company (R.J. Reynolds Tobacco Company), and have the same filing date (September 8, 1998). Ex. 1002 at [75], [73], [22]; Ex. 2018 at [75], [73], [22]. The figures in the '875 patent and Brooks are the same. *Compare*

⁵ As Patent Owner notes, the Board considered a similar issue in *Nu Mark LLC v. Fontem Holdings 1 B.V.*, Case IPR2016-01309 (PTAB December 15, 2016) (Paper 11) ("the 1309 IPR," Ex. 2009). Prelim. Resp. 36–41. The 1309 IPR was directed to U.S. Patent No. 8,863,752 B2 ("the '752 patent"), which issued from an application that was filed as a continuation of the '521 Application. Petitioner identified the 1309 IPR as a related proceeding in the Petition. Pet. 7. In the 1309 IPR, institution was denied under 35 U.S.C. § 325(d) on the basis that the disclosures in Brooks were previously presented to, and considered by, the Office during prosecution. Ex. 2009, 12–13.

Ex. 2018, Figs. 1–11, *with* Ex. 1002, Figs. 1–11. The '875 patent describes "suitable heating elements" that include "metal wires" and "porous substrates in intimate contact with resistance heating components," and states that "heating element 18 is impregnated with or otherwise carries one or more aerosol forming substances in order that the aerosol forming substances are in a heat exchange relationship with the electrical heating element." Ex. 2018, 6:22–32. The '875 patent states that "[p]referably, such porous heating elements are impregnated with liquid aerosol forming substances, such as glycerin." *Id.* at 3:43–45. The '875 patent further teaches that heating element 18 can be "positioned within a heat resistant insulative tube 66" and that "[p]referably, a plasticized cellulose acetate tube 68 circumscribes the insulative tube 66." *Id.* at 9:36–45. Petitioner relies on the same disclosures in Brooks as teaching "an atomizer assembly comprising an atomizer and a liquid supply in a tubular atomizer assembly housing" as recited in claim 1 of the '205 patent. Pet. 38–41, 45.

Similarly, Brooks and the EP Publication name the same inventors and are assigned to the same company. Ex. 1002 at [75], [73]; Ex. 2019 at [72], [71]. The EP Publication claims priority to U.S. App. No. 07/242,086, which is the application that issued as Brooks. Ex. 2019 at [30]; *see* Ex. 1002 at [21]. The figures presented in the EP Publication are the same as those in Brooks. *Compare* Ex. 2019, Figs. 1–11, *with* Ex. 1002, Figs. 1– 11. Moreover, the disclosure of the EP Publication is largely identical to that of Brooks.

For example, the EP Publication describes that controller 14 includes receptacle 44, which "includes tube 48 which is inserted into passageway 46 of plug 16 to be in airflow communication with the internal region of the

cigarette," with the other end of tube 48 being "in airflow communication with pressure sensing switch 28, so that changes in air pressure which occur within the cigarette during draw can be sensed by the switch." Ex. 2008, 12:3–17. The EP Publication further states that "[p]lug 16 also includes a passageway 46 through which tube 48 from pressure sensing switch 28 extends." *Id.* at 10:46–48. Petitioner relies on the identical disclosure in Brooks as teaching "a second cavity in a tubular atomizer assembly housing" as recited in claim 9 of the '205 patent. Pet. 75–76 (citing Ex. 1002, 9:43–46; 8:38–40).

Additionally, Patent Owner notes that

the reference in Brooks to "aerosol forming substances and/or flavor substances located on the resistance element or elsewhere in the article" is present in the EP Publication and the '875 Patent, and dependent claims reciting "wherein the flavor substance is carried by the heating element prior to use" are present in the '875 Patent. Ex. 1002, 6:50–52, claim 57; Ex. 2015, 5:6–9, claim 25. The EP Publication includes similar dependent claims reciting "wherein the aerosol forming substance is carried by the heat element." Ex. 2019, claims 12, 23.

Prelim. Resp. 40.

For the foregoing reasons, we determine that the content of Brooks is the same or substantially the same as the disclosures in the '875 patent and the EP Publication. A comparison of Brooks, the '875 patent, and the EP Publication demonstrates that the flavor delivery article described in the '875 patent and the smoking article described in the EP Publication are the same in all material respects as the smoking article described in Brooks.

b. Whether the '875 Patent and the EP Publication Were Previously Considered by the Office

Having determined that the content of Brooks is materially the same as that in the '875 patent and the EP Publication, we next determine whether the '875 patent and the EP Publication were previously presented to and considered by the Office in conjunction with the challenged claims. As set forth above, both the '875 patent and the EP Publication were cited in an IDS of the '521 Application, and the Examiner indicated that both the '875 patent and the EP Publication were presented and considered. Ex. 2020, 2, 3. Additionally, the '875 patent and the EP Publication are cited on the face of the '205 patent as "References Cited." Ex. 1001 at [56].

In the April 20, 2016 Notice of Allowability, the Examiner stated that "the claimed invention is in condition for allowance" because "[t]he closest prior art of record fails to show or reasonably suggest the configuration of the claimed invention wherein the atomizer includes a heater wire wound on a porous body which is perpendicular to a longitudinal axis of the tubular atomizer assembly." Ex. 3003, 2. The '875 patent and the EP Publication were prior art of record at the time this Notice of Allowability was issued, as evidenced by the IDS. See Ex. 2020, 1, 3. Although neither the '875 patent nor the EP Publication was used as a basis to reject the challenged claims, the Examiner nevertheless indicated that the '875 patent and the EP Publication do not teach a heating wire wound on a porous body that is perpendicular to a longitudinal axis of the atomizer assembly housing. All of the challenged claims include these limitations. Accordingly, based on the totality of the evidence, we determine that the '875 patent and the EP Publication were considered by the Office with regards to the challenged claims.

2. Whittemore

Next, we examine whether or not the disclosures of Whittemore relied upon by Petitioner here were presented to, and considered previously by, the Office with regards to the challenged claims. As set forth above, Whittemore was cited in an IDS of the '521 Application, and was used as a basis to reject three of the then-pending claims. Ex. 2020, 2; Ex. 3001, 7–8. Additionally, Whittemore is cited on the face of the '205 patent in the "References Cited" section. Ex. 1001, [56].

In the September 25, 2015 Office Action, the Examiner rejected thenpending claims 2, 3, and 11 as being obvious over the combination of three references, including Whittemore, stating that Whittemore

discloses a vaporizing unit wherein a heater coil is wound around a porous component in the atomizer, and teaches a thread, string or strand-based wick (d) surrounded by a coiled heating element of filament (3) wherein the wick is always in contact with the heating element (3) and a portion of the wick is always in contact with a liquid medicament in a vaporizing vessel, so that the medicament will be carried by capillary action to a point where it will be vaporized by the heat form [*sic*] the filament (3) (see col. 1, lines 50 – col. 2, line 8).

Ex. 3001, 7–8. The Examiner concluded that "[i]t would have been obvious to one having ordinary skill in the art to have incorporated such a heater coil/porous element atomizer arrangement into the nicotine dispenser" created by the combination of the two other cited references because doing so would be "using a known technique of winding a heating coil around a porous wick would be expected to provide another predictable means of vaporizing liquid prior to inhalation." *Id.* at 8.

This was the only substantive office action issued by the Examiner during prosecution of the '205 patent. Following the September 25, 2015

Office Action, an Applicant-filed Amendment with Remarks was filed on December 28, 2015, and the Examiner allowed the amended claims on April 20, 2016. The Examiner's stated reason for allowance was that

[t]he closest prior of record fails to show or reasonably suggest the configuration of the claimed invention wherein the atomizer includes a heater wire wound on a porous body which is perpendicular to a longitudinal axis of the tubular atomizer assembly. Therefore, the claimed invention is in condition for allowance.

Ex. 3002, 2. Because Whittemore previously was cited by the Examiner as teaching a heating wire wound on a porous body, by allowing the amended claims the Examiner indicated that Whittemore does not teach a heating wire wound on a porous body that is perpendicular to a longitudinal axis of the atomizer assembly housing as required by claims 1–22 of the '205 patent. Thus, Whittemore was previously presented to, and considered by, the Office with respect to the challenged claims.

E. Discretion to Deny Institution of Trial

Having found that the instant Petition raises the same or substantially the same prior art or arguments as those previously presented to the Office, we now decide whether to exercise our discretion to deny institution under § 325(d). Our discretion under § 325(d) involves a balance between several competing interests. *See Neil Ziegman, N.P.Z., Inc. v. Stephens*, Case IPR2015-01860, slip op. at 12–13 (PTAB Feb. 24, 2016) (Paper 11). "On the one hand, there are the interests in conserving the resources of the Office and granting patent owners repose on issues and prior art that have been considered previously." *Fox Factory, Inc. v. SRAM, LLC*, Case IPR2016-01876, slip op. at 7 (PTAB Apr. 3, 2017) (Paper 8). "On the other hand, there are the interests of giving petitioners the opportunity to be heard and

correcting any errors by the Office in allowing a patent—in the case of an *inter partes* review—over prior art patents and printed publications." *Id.*

For the following reasons, we deny the Petition. The disclosures of the two references asserted by Petitioner were previously presented to, and considered by, the Office. Specifically, the disclosures in Brooks upon which Petitioner relies were presented to the office via the corresponding disclosures in the '875 patent and the EP Publication, and the disclosures in Whittemore upon which Petitioner relies were also presented to and considered by the Office during prosecution of the '521 Application. Petitioner is thus asking the Board, essentially, to second-guess the Office's previous decision on substantially the same issues, without providing any arguments distinguishing the Examiner's prior consideration of Brooks and Whittemore, or any compelling reason why we should re-evaluate substantially the same prior art or arguments as those presented during prosecution and considered by the Examiner.

Moreover, although we acknowledge that Petitioner has a direct interest in pursuing the instant Petition, we also acknowledge the burden and expense to Patent Owner in having to defend the '205 patent based on substantially the same prior art or arguments already considered by the Office. Additionally, we are not persuaded that adjudicating a dispute on already-considered issues is an efficient use of Board or party resources. *See Unified Patents Inc. v. John L. Berman*, Case IPR2016-01571, slip. op. at 12 (PTAB Dec. 14, 2016) (Paper 10) (informative); *see also Cultec, Inc. v. StormTech LLC*, Case IPR2017-00777 (PTAB Aug. 22, 2017) (Paper 7) (informative) (denying institution of *inter partes* review under § 325(d) because the same or substantially the same prior art or arguments previously

were presented to the Office during prosecution); *Hospira, Inc. v. Genentech, Inc.*, Case IPR2017-00739 (PTAB July 27, 2017) (Paper 16) (informative) (denying institution of *inter partes* review under § 325(d) because the Office already decided the dispositive issue of whether the asserted references qualified as prior art with respect to the challenged patent); *Juniper Networks, Inc. v. Mobile Telecomm'ns Techs., LLC*, Case IPR2017-00642, slip op. at 13 (PTAB July 27, 2017) (Paper 24) (finding that "the Examiner was aware of the contents of [the asserted prior art] in material respects applicable to [the challenged claims]" and that the Board "was shown no reason sufficient to reevaluate [the asserted prior art] with respect to any of the challenged claims.").

III. CONCLUSION

Based on the information presented in the Petition and the Preliminary Response, we conclude that the instant Petition raises the same or substantially the same prior art or arguments as those previously presented to the Office. In light of the circumstances of the present case, we exercise our discretion under 35 U.S.C. § 325(d) and decline to institute *inter partes* review of the '205 patent.

IV. ORDER

In consideration of the foregoing, it is hereby ORDERED that the Petition is denied, and no *inter partes* review is instituted.

PETITIONER:

Ralph J. Gabric Robert Mallin Scott Timmerman BRINKS GILSON & LIONE rgabric@brinksgilson.com rmallin@brinksgilson.com stimmerman@brinksgilson.com

PATENT OWNER:

Michael J. Wise Joseph P. Hamilton Tyler R. Bowen PERKINS COIE LLP <u>MWise@perkinscoie.com</u> JHamilton@perskinscoie.com TBowen@perskinscoie.com