

UNITED STATES PATENT & TRADEMARK OFFICE

BEFORE THE PATENT TRIAL & APPEAL BOARD

SCENTAIR TECHNOLOGIES, INC.
Petitioner

v.

PROLITEC, INC.
Patent Owner

Case IPR2013-00179
Patent No. 7,712,683

PETITIONER'S NOTICE OF APPEAL

Notice is hereby given, pursuant to 35 U.S.C. § 141 and 37 C.F.R. § 90.2, that Petitioner ScentAir Technologies, Inc. (“ScentAir”) hereby appeals to the United States Court of Appeals for the Federal Circuit from the Patent Trial and Appeal Board’s (the “Board”) Final Written Decision on Remand entered on April 10, 2019 (Paper 75) (attached hereto as Exhibit A).

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Petitioner anticipates that the issues on appeal may include, but are not limited to, the following, as well as any underlying findings, determinations, rulings, decisions, opinions, claim interpretations, or other related issues:

- Whether claim 3 as amended by Patent Owner is unpatentable over prior art, enlarges the scope of claims, introduces new matter and is nonresponsive to a ground of unpatentability; and
- Any issues raised on appeal by Patent Owner.

In accordance with 35 U.S.C. § 142 and 37 C.F.R. §§90.2 and 90.3, copies of this Notice of Appeal are being timely filed simultaneously with the Director of the United States Patent and Trademark Office and the Patent Trial and Appeal Board. In addition, a copy of this Notice of Appeal, along with the required docketing fees, are being filed with the Clerk’s Office for the United States Court of Appeals for the Federal Circuit via CM/ECF. A copy of this Notice of Appeal is also being served on Patent Owner.

IPR2013-00179
Patent No. 7,712,683 B2

Dated: June 12, 2019

Respectfully submitted,

/s/ Joshua B. Pond

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CERTIFICATE OF FILING

I hereby certify that on June 12, 2019, a true and correct copy of the foregoing PETITIONER'S NOTICE OF APPEAL was filed electronically through the Patent Trial and Appeal Board's End to end (E2E) system, and that the original of the foregoing was hand-delivered to the Director of the United States Patent and Trademark Office at the following address in accordance with 37 C.F.R. §§ 42.6(b), 90.2(a), and 104.2:

Office of the General Counsel
United States Patent and Trademark Office
10B20, Madison Building East
600 Dulany Street
Alexandria, VA 22313-1450

CERTIFICATE OF FILING

I hereby certify that on June 12, 2019, a true and correct copy of the foregoing PETITIONER'S NOTICE OF APPEAL was filed electronically via the CM/ECF system with the Clerk of the Court for the United States Court of Appeals for the Federal Circuit, and that the requisite fee was paid in accordance with 37 C.F.R. § 90.2(a)(2) and Federal Circuit Rule 15.

IPR2013-00179
Patent No. 7,712,683 B2

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of Petitioner's Notice of Appeal has been served electronically via email upon the following:

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EXHIBIT A

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SCENTAIR TECHNOLOGIES, INC.,
Petitioner,

v.

PROLITEC, INC.,
Patent Owner.

Case IPR2013-00179
Patent 7,712,683 B2

Before JAMESON LEE, DONNAM. PRAISS, and
CHRISTOPHER L. CRUMBLY, *Administrative Patent Judges*.

PER CURIAM.

FINAL WRITTEN DECISION ON REMAND
35 U.S.C. § 318(a)

I. BACKGROUND

A. Procedural History

Petitioner, ScentAir Technologies, Inc., filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of all claims, i.e., claims 1 and 2, of U.S. Patent No. 7,712,683 B2 (“the ’683 patent”). The Patent Owner, Prolitec, Inc., did not file a preliminary response. In an August 6, 2013, Decision to Institute, the Board granted the Petition and instituted trial of both claims. Paper 13.

After institution, Patent Owner filed a Patent Owner Response (Paper 29, “PO Resp.”), and Petitioner filed a Reply (Paper 35, “Pet. Reply”). Patent Owner also filed a contingent motion to amend the ’683 patent (Paper 28, “Amend Mot.”), to which Petitioner filed an opposition (Paper 36, “Amend Opp.”), and in support of which Patent Owner filed a reply (Paper 45, “Amend Reply”). Oral hearing was held on March 10, 2014, and a transcript of it is included in the record. Paper 59.

In a Final Written Decision entered June 26, 2014 (the “original Board Decision”), we determined that Petitioner had shown by a preponderance of the evidence that (1) claims 1 and 2 were anticipated by WO 2004/080604 A2, published September 23, 2004 (Ex. 1004, “Benalikhoudja”)¹; and (2) claims 1 and 2 would have been obvious over Benalikhoudja in view of US 7,131,603 B2, issued November 7, 2006 (Ex. 1006, “Sakaida”). Paper 60 (“Orig. Bd. Dec.”), 23, 27. Further, we denied the Motion to

¹ An English translation of Benalikhoudja was submitted as Ex. 1005; our citations to the content of “Benalikhoudja” are to the English language document.

Amend because “Patent Owner ha[d] not met its burden of proof on the motion to amend.” *Id.* at 30.

The original Board Decision was appealed to the Federal Circuit, which initially affirmed it in a 2–1 decision. *See* Paper 68 (*Prolitec, Inc. v. Scentair Techs., Inc.*, 807 F.3d 1353 (Fed. Cir. 2015)). Patent Owner petitioned for rehearing *en banc*. The Federal Circuit granted Patent Owner’s petition and ordered as follows:

In light of this court’s *en banc* decision in *Aqua Products, Inc. v. Matal*, No. 2015-1177, 2017 WL 4399000 (Fed. Cir. Oct. 4, 2017) (*en banc*), the portions of the panel’s and Patent Trial and Appeal Board’s decisions in this case concerning Prolitec’s motion to amend are vacated, *see Prolitec, Inc. v. ScentAir Techs., Inc.*, 807 F.3d 1353, 1362–65 (Fed. Cir. 2015) (Majority Op. Part III); *ScentAir Techs., Inc. v. Prolitec, Inc.*, IPR2013-00179, Paper No. 60, 2014 WL 2965704, at *15–17 (P.T.A.B. June 26, 2014) (Final Written Decision Part III), and this case is remanded to the Board for further proceedings consistent with *Aqua*.

Paper 69 (*Prolitec, Inc. v. ScentAir Techs., Inc.*, No. 2015-1020 (Fed. Cir. Oct. 18, 2017)). On October 25, 2017, the Federal Circuit issued its mandate to the Board. Paper 70.

On December 20, 2017, a conference call was held during which the parties jointly proposed post-*Aqua Products* briefing limited to arguing who should prevail with respect to the Motion to Amend, based on the previously-filed briefing and evidence (i.e., the record at the time the original Board Decision was entered) albeit in view of *Aqua Products*. Paper 67. Additionally, the parties agreed that no new evidence would be submitted and no further oral arguments would be heard. *Id.* Thus, pursuant to our authorization (*see id.*), Patent Owner filed a supplemental brief on

January 19, 2018 (Paper 72), Petitioner filed a supplemental responsive brief on February 20, 2018 (Paper 75), and Patent Owner filed a supplemental reply on February 27, 2018 (Paper 76).

B. The '683 Patent

The '683 patent issued on May 11, 2010, and is assigned to Patent Owner. Ex. 1001 at [45], [73]. It discloses “a removable replaceable cartridge for use with a diffusion device where the liquid to be diffused is contained within the cartridge.” *Id.* at 1:57–60. Figure 3 of the '683 patent is reproduced below.

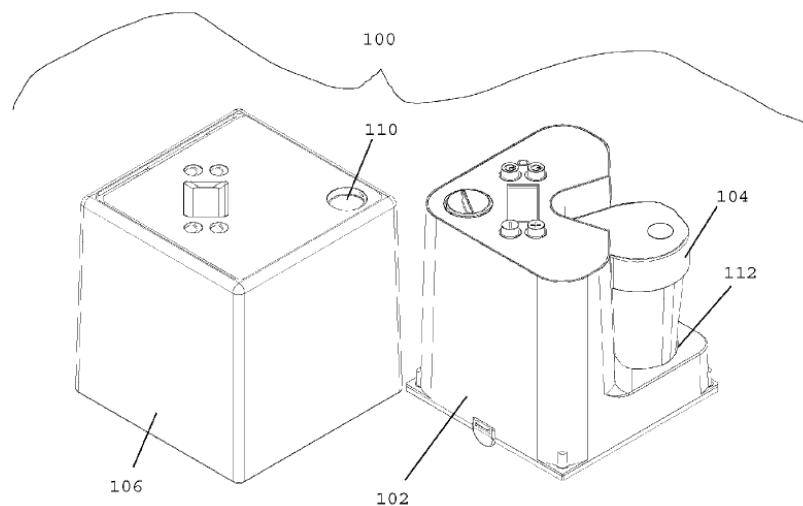


Figure 3 illustrates diffusion device 100, which includes cover 106 that can be removed to expose housing 102 and removable cartridge 104. Ex. 1001, 3:48–50. The housing includes a source of compressed gas to be directed into the cartridge. *Id.* at 5:16–19, 1:62–63.

Figure 5 of the '683 patent is reproduced below.

FIG. 5

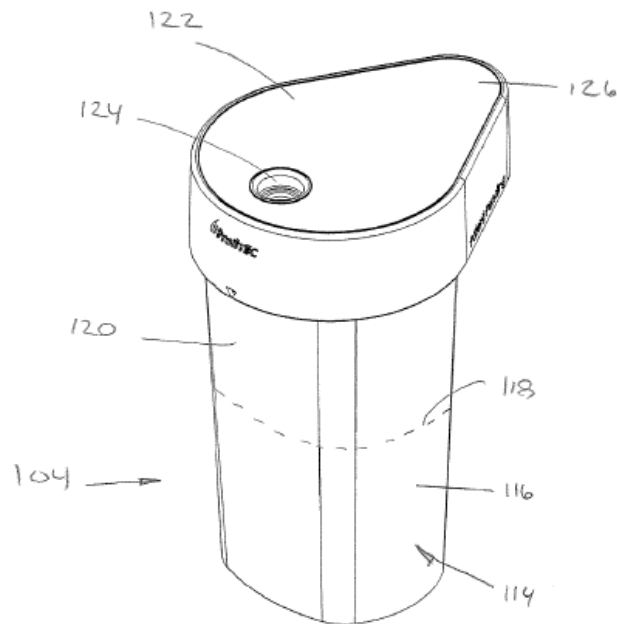


Figure 5 illustrates the cartridge, which includes reservoir 114 and diffusion head 122. Ex. 1001, 5:45–49. The reservoir is filled partially with liquid 116 to be diffused, thus leaving open head space in the reservoir above the surface of fluid level 118. *Id.* at 5:50–51.

Figure 34 of the '683 patent is reproduced below with our annotation added.

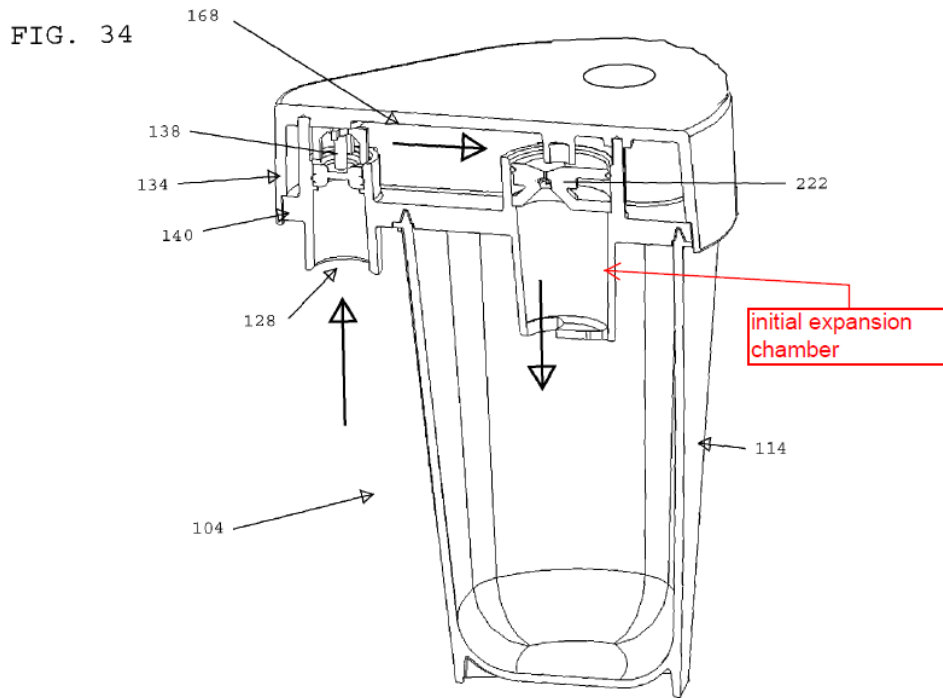


Figure 34 illustrates a cross-sectional view of the cartridge, revealing certain details of the diffusion head. The diffusion head includes a venturi² in the vicinity of lead line 222. Ex. 1001, 11:58–59. Below the venturi is an initial expansion chamber (described below in reference to Fig. 20). Using arrows, Figure 34 illustrates the flow of gas from a compressed gas source (not shown) up through inlet 128 of the cartridge, to and through the venturi,

² The Venturi effect is a decrease in pressure that occurs when the flow rate of a fluid increases through a constriction in a tube. *See Venturi Effect, HOW IT WORKS: SCIENCE AND TECHNOLOGY 2580* (3d ed. 2003). Ex. 3001. A venturi tube, also referred to as simply a venturi, is a device that utilizes this Venturi effect to create suction or measure fluid flow rate as a fluid flows through a constriction in the device. *See “Venturi tube,” THE PENGUIN DICTIONARY OF SCIENCE* (2009) (Ex. 3002); *see also* “venturi tube,” *COLLINS ENGLISH DICTIONARY – COMPLETE AND UNABRIDGED* (2003) (“also called venturi, a tube with a constriction used to reduce or control fluid flow”) (Ex. 3003).

and then downward into the initial expansion chamber and open head space in reservoir 114. *Id.* at 11:58–63.

Figure 28 of the '683 patent is reproduced below.

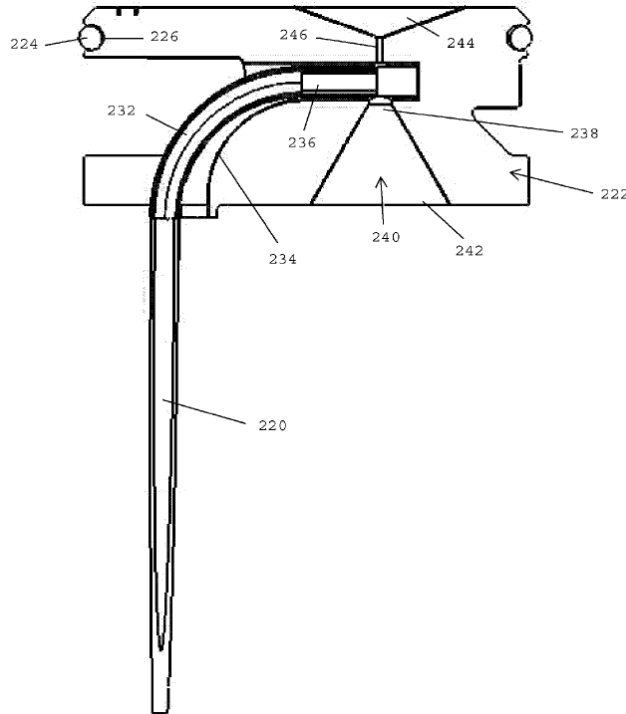


Figure 28 illustrates a cross-sectional view of venturi 240 and associated components. The venturi includes narrow end 238 and wide end 242. Ex. 1001, 9:28–30. Tube 220 is provided to draw liquid into the venturi from the reservoir. The tube includes a first (lower) end that extends into the liquid in the reservoir (not shown in Figure 28) and second end 236 that extends to the narrow end of the venturi. *Id.* at 9:17–20, 26–27. Gas passage 246 is provided to allow compressed gas to flow to the narrow end of the venturi. *Id.* at 9:33–35. Thus, the narrow end of the venturi is in fluid communication with (1) the gas passage and (2) the second end of the liquid tube.

The '683 patent describes the diffusion process as follows:

Gas passage 246 directs the gas into narrow end 238 of venturi 240. The gas flow in narrow end 238 creates a low pressure environment adjacent second end 236 of tube 220. This vacuum draws liquid 116 up tube 220 and into narrow end 238. High velocity gas and liquid 116 mix in venturi 240 as they pass from narrow end 238 to wide end 242. Leaving venturi 240, the mixed gas and liquid pass through openings 182 and into head space 120 of reservoir 114.

Ex. 1001, 9:40–48.

Fig. 20 is reproduced below with our annotation added.

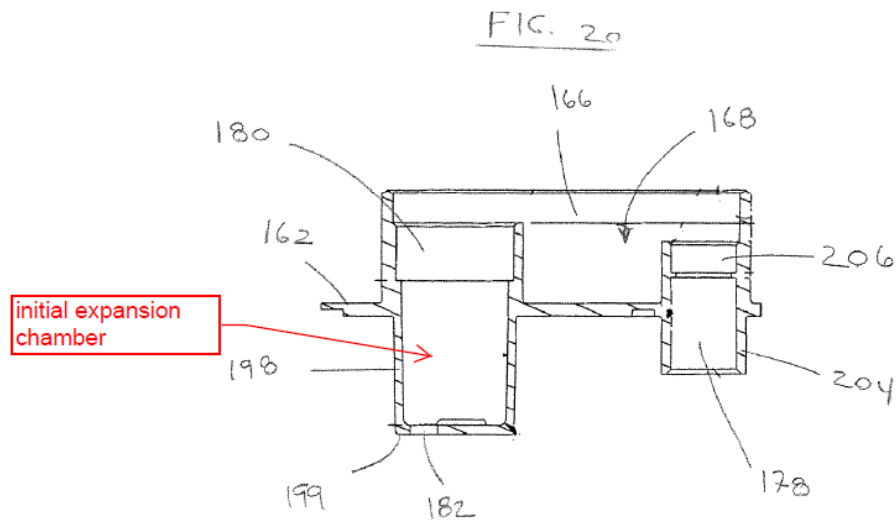


Figure 20 illustrates a cross-sectional view of a baffle of the diffusion head. *Id.* at 2:41–42, 6:11–15. The baffle includes recess 180 for mounting the venturi and tube assembly (not shown in Figure 20 but shown previously in Figure 28). *Id.* at 6:49–50. Extending from lower plate 162 is wall 198 defining an initial expansion chamber (indicated by our annotation) for gas and atomized liquid being ejected into head space 120 from the venturi that is mounted within the recess. *Id.* at 7:25–28. A bottom wall of the recess includes one or more openings 182, which allow the gas and atomized liquid to pass through to the head space in the reservoir (head space 120 and

reservoir 114 not shown in Figure 20 but shown previously in Figure 5). Ex. 1001, 6:50–52.

The '683 patent states that the flow of gas and diffused liquid into the head space urges some of the gas and diffused liquid to exit the cartridge through an outlet. *Id.* at 9:49–64. The outlet is structured to cause “larger, less desirable liquid particles atomized in the gas” to precipitate and drain back to the liquid source of the reservoir. *Id.* at 9:54–61.

C. Proposed Claim 3

Patent Owner’s Motion to Amend proposes to substitute claim 3 for issued claim 1, if the latter is unpatentable, which it is. Claim 3 is reproduced below with, relative to claim 1, underlined matter being added and double-bracketed material being deleted.

3. A cartridge for use with a liquid diffusing device, the diffusing device including a source of compressed gas, the cartridge comprising:

a reservoir and a diffusion head ~~[[mounted]]~~ permanently joined to the reservoir;

the reservoir defining an interior space partially filled with a liquid to be diffused and a head space above the liquid within the reservoir;

the diffusion head comprising:

a venturi having a narrow end and an opposing wide end, the wide end opening into an initial expansion chamber, the expansion chamber having a plurality of openings into the head space, the narrow end including only a first opening and a second opening;

a conduit including a first end extending below the liquid level in the reservoir, a second end of the conduit in fluid communication with the first opening of the narrow end and fixed in position with respect to the narrow end;

an inlet in fluid communication with the second opening of the narrow end of the venturi and permitting

gas to flow from the source of compressed gas of the diffusing device into the venturi;

an outlet in fluid communication with the head space permitting gas within the head space to exit the cartridge, the outlet including a second chamber through which the gas within the head space must pass to exit the cartridge, the second chamber including a liquid return opening permitting liquid accumulating within the secondary chamber to return the reservoir.

Amend Mot. 2–3.

II. ANALYSIS

During an *inter partes* review, a patent owner may file a motion to amend the patent. 35 U.S.C. § 316(d). A motion to amend “may not enlarge the scope of the claims of the patent or introduce new matter.” 35 U.S.C. § 316(d)(3). Further, a motion to amend must be responsive to a ground of unpatentability involved in the *inter partes* review. 37 C.F.R. § 42.121(a)(2)(i). Although a motion to amend must comply with these requirements, a patent owner does not bear a burden to prove its proposed claims are patentable. *Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1327 (Fed. Cir. 2017) (en banc).

A. The Motion to Amend is Responsive to a Ground of Unpatentability

In both grounds involved in the *inter partes* review (i.e., anticipation by Benalikhoudja and obviousness over Benalikhoudja and Sakaida), Petitioner relied on Benalikhoudja to meet claim 1’s “a diffusion head mounted to the reservoir.” Pet. 15 (citing Ex. 1005, Figs. 6, 8; Ex. 1003 ¶ 22). In opposing those challenges to claim 1, Patent Owner conceded that Benalikhoudja discloses “a diffusion head *removably* attached to a liquid reservoir” (PO Resp. 18 (emphasis added)) but argued that “mounted”

should be construed to mean “*permanently* joined.” PO Resp. 9–10 (emphasis added).

We rejected Patent Owner’s construction as unreasonably narrow. Orig. Bd. Dec. 14 (“The term ‘mounted’ does not require a ‘permanently joined’ relationship.”); *see also Prolitec*, 807 F.3d at 1359 (“We discern no error in the Board’s rejection of Prolitec’s proposal to limit ‘mounted’ to mean ‘permanently joined.’”). Further, we relied on Patent Owner’s factual concession “that Benalikhoudja discloses ‘a diffusion head removably attached to a liquid reservoir.’” Orig. Bd. Dec. 18 (quoting PO Resp. 18).

Proposed claim 3 is identical to claim 1 except that, instead of reciting “a diffusion head mounted to the reservoir,” it recites “a diffusion head permanently joined to the reservoir.” Amend Mot. 2–3. Thus, proposed claim 3 introduces a limitation (i.e., “permanently joined”), which Patent Owner argues is not met by Benalikhoudja alone or in combination with Sakaida.

Accordingly, the Motion to Amend is responsive to a ground—indeed, both grounds—involved in the *inter partes* review.

B. The Motion to Amend does not Enlarge
the Scope of the Claims of the ’683 Patent

Patent Owner argues that proposed claim 3 is narrower than claim 1 because “permanently joined” is narrower than “mounted.” *See* Amend Mot. 3–4. Petitioner responds that claim 3 would be identical in scope to claim 1 under the construction of “mounted” Patent Owner proposed in its Response. Amend Opp. 3–4. The Motion to Amend, however, is contingent on claim 1 being held unpatentable, which we have so held, in part, by rejecting Patent Owner’s construction of “mounted” as meaning

“permanently joined.” Further, our construction of “mounted” as *not* limited to “permanently joined” was affirmed by the Federal Circuit. *Prolitec*, 807 F.3d at 1359.

Accordingly, claim 3 is narrower than claim 1, and the Motion to Amend does not enlarge the scope of the claims of the ’683 patent.

C. The Motion to Amend does not Introduce New Matter

Patent Owner argues that the ’683 patent discloses examples of permanently joining a diffusion head to a reservoir. *See* Amend Mot. 4–5 (citing Ex. 1001, 5:58–6:5, 13:31–33). For example, the ’683 patent states that “head assembly 604 and reservoir 602 may be jointed to each other by heat or ultrasonic welding, spin welding, or by use of an adhesive.” Ex. 1001, 13:31–33.

Petitioner responds that “the word ‘permanent’ appears nowhere in the ’683 patent specification.” Amend Opp. 4 (typeface removed). However, “the specification need not provide *in haec verba* support for the language added to the claim.” *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779 (Fed. Cir. 2002) (reversing summary judgment that claims were invalid under 35 U.S.C. § 112 ¶¶ 1–2). Rather, the specification “must simply indicate to persons skilled in the art that as of the [filing] date the applicant had invented what is now claimed.” *Id.* (brackets and quotation marks omitted). Whether it does so is a question of fact. *Id.* at 778. We find that the specification does provide support for the proposed amendment because welding is a form of permanently joining two things and an adhesive can be permanent. *See* Ex. 1019, 115:22–116:1 (Dr. Shedd testifying that “[a]n adhesive can be permanent or non-permanent.”). Given the predictable nature of the art, either of these disclosures is

sufficient to indicate that the inventor of the '683 patent had possession of a “permanently joined” diffusion head. *See Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1361–62 (Fed. Cir. 2018) (holding that when the “field of this invention is a predictable art . . . a lower level of detail is required to satisfy the written description requirement” such that the specification’s disclosure of a “fibre optics bundle” provided written description support for “light guides” generally).

Accordingly, we find the invention of claim 3 is adequately described in the specification and does not introduce new matter.

D. Claim 3 is not Unpatentable on the Record Presented

Patent Owner does not bear the burden to prove that claim 3 is patentable. *Aqua Prods.*, 872 F.3d at 1327 (“[T]he PTO has not adopted a rule placing the burden of persuasion with respect to the patentability of amended claims on the patent owner that is entitled to deference . . . in the absence of anything that might be entitled deference, the PTO may not place that burden on the patentee.”); *see also Bosch Auto. Serv. Sols., LLC v. Matal*, 878 F.3d 1027, 1040 (Fed. Cir. 2017) (“In *Aqua Products, Inc. v. Matal*, this Court recently ruled that the patent owner does not bear the burden of proof on the patentability of its proposed amended claims.”). Rather, as a panel of the Board has held, under “the current state of the law and USPTO rules and guidance, the burden of persuasion ordinarily will lie with the petitioner to show that any proposed substitute claims are unpatentable by a preponderance of the evidence,” and “the Board determines whether substitute claims are unpatentable by a preponderance of the evidence based on the entirety of the record, including any opposition

made by the petitioner.” *Lectrosonics, Inc. v. Zaxcom, Inc.*, Case IPR2018-01129, slip op. at 4 (PTAB Feb. 25, 2019) (Paper 15) (precedential).

The parties disagree as to whether the present case is an “ordinary” one in which petitioner bears the burden of persuasion, or if it is one where “[t]he Board itself . . . may justify any finding of unpatentability by reference to the evidence of record in the proceeding.” *Id.* Petitioner contends that *Aqua Products* “does *not* require that the burden with respect to amendment patentability is affirmatively placed on Petitioner,” but rather that the Board has “taken the burden upon itself based on the entirety of the record, including arguments made by [P]etitioner.” Paper 75, 3–4. Patent Owner argues only that “*Aqua* and its progeny” hold that a petitioner bears the burden of proving the unpatentability of proposed amended claims, and does not address whether, and in what situations, the Board may itself shoulder the burden. Paper 72, 1 (citing *Bosch*, 878 F.3d at 1040).

Certainly, the plurality opinion in *Aqua Products* contemplates that, in some situations, the Board may place the burden on itself to justify a finding of unpatentability, and in so doing consider arguments against patentability that were not raised by the petitioner. *See Aqua Prods.*, 872 F.3d at 1311 (O’Malley, J.) (“[W]here the challenger ceases to participate in the IPR and the Board proceeds to final judgment, *it is the Board* that must justify any finding of unpatentability by reference to the evidence of record in the IPR.”); *see also Bosch*, 878 F.3d at 1040 (citing the plurality opinion). It is unclear whether this authority is limited to cases in which the petitioner ceases to participate altogether, or if the Board may also shoulder the burden of persuasion in other situations, such as where, as here, the petitioner remains in the case but does not make a sufficient showing of

unpatentability of the proposed substitute claims. We need not, however, decide that question in this case, because Petitioner has not sufficiently shown unpatentability, and we have no reason, based on the totality of the record before us including arguments made by Petitioner, to conclude that any proposed substitute claim is unpatentable. *See Lectrosonics*, slip op. at 4 (“Thus, the Board determines whether substitute claims are unpatentable by a preponderance of the evidence based on the entirety of the record, including any opposition made by the petitioner.”); Memorandum, “Guidance on Motions to Amend in view of Aqua Products” (Nov. 21, 2017) (<http://go.usa.gov/xU6YV>).

In its Opposition to the Motion to Amend, Petitioner asserts that claim 3 is (1) “Not Patentable over Benalikhoudja,” (2) “Not Patentable Over Benalikhoudja in View of Sakaida,” and (3) “Is Further Rendered Obvious by Other Prior Art.” Amend Opp. 7, 14, 15. In its supplemental responsive brief, Petitioner asserts that claim 3 is unpatentable over Benalikhoudja and Allred, or Benalikhoudja and Poncelet. Paper 75, 4–7. We address each assertion below.

1. Patentability over Benalikhoudja

Petitioner argues that “Benalikhoudja anticipates proposed substitute claim 3.” Amend Opp. 13.

Benalikhoudja discloses a device “for the diffusion of liquids, such as the diffusion of perfumes, liquid fuels, etc.” and states that such devices may “be single-use and disposable after the liquid contained in the reservoir is depleted.” Ex. 1005, 1:5–6, 6:13–14.

Figure 6 of Benalikhoudja is reproduced below.

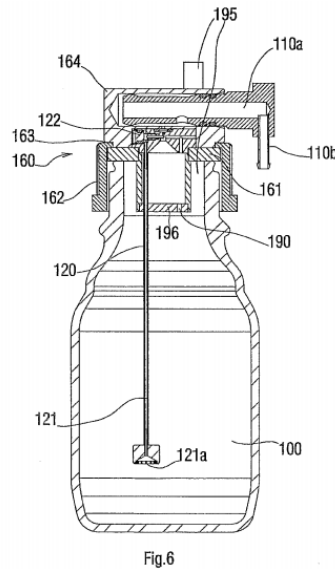


Figure 6 illustrates a cartridge having a reservoir of liquid 100 to be nebulized. Supply line 120 for the liquid includes hollow rod 121 that extends into the liquid and secondary line 122 that extends into venturi 160. Ex. 1005, 5:29–32. The venturi rests on the rim of the reservoir through centering flange 161. *Id.* at 5:32–33. “A tamper-proof ring 162 is positioned around the upper part of the reservoir and through a locking collar 163 in its upper part rests against the centering flange 161.” *Id.* at 5:33–35.

We have already determined that Benalikhoudja anticipates claim 1, and that determination has been affirmed. Thus, Benalikhoudja likewise anticipates claim 3 *if* its diffusion head is permanently joined to its reservoir.

Petitioner does not identify an explicit description in Benalikhoudja of a diffusion head permanently joined to a reservoir, and we find none. *See* Amend Opp. 7–15; Pet. 15; Pet. Reply 7–10; Ex. 1005. Rather, Petitioner argues that “the tamper proof ring disclosed in Benalikhoudja meets this limitation.” Amend Opp. 2. Petitioner further argues that the limitation is met because “Benalikhoudja teaches a ‘single-use and disposable’ device

that prevents ‘access [to] the contents of the reservoir.’” Amend Opp. 7 (quoting Ex. 1005, 6:11–14; also citing Ex. 2014, 53:21–22 (Petitioner’s witness, Charles Garris, Jr., Ph.D., testifying on cross-examination: Benalikhoudja’s cartridge is “designed to be a disposal cartridge, which includes the diffusion head and the reservoir.”)). We are not persuaded by Petitioner’s arguments.

Benalikhoudja states that “after the tamper-proof ring 162 is secured on the reservoir, it will no longer be possible to remove the venturi without destroying the ring, nor to access the contents of the reservoir.” Ex. 1005, 6:11–12. The statement makes clear that the venturi and the reservoir can be separated prior to installing the ring and also subsequent to installation of the ring by breaking the ring. Indeed, Benalikhoudja describes the venturi as merely “rest[ing] on the rim of the reservoir.” *Id.* at 5:32. Separating the two requires no damage to either part.

Benalikhoudja does not state that its tamper-proof ring provides a permanent joining of the diffusion head and reservoir. Rather, as Patent Owner argues, the Benalikhoudja diffusion head and reservoir are separable “with only the tamper-proof ring 162 suffering damage.” Amend Mot. 8 (citing Ex. 2004 ¶¶ 1011–1012). Benalikhoudja explicitly contemplates that destruction of the ring would facilitate opening of the reservoir. Ex. 1005, 6:11–12. Based on the disclosure of Benalikhoudja as discussed by Petitioner, it is uncertain whether tamper-proof ring 162 prevents tampering with the contents of the reservoir or just provides an indicator, as would be reflected by a broken ring, that such tampering might have taken place. While the former supports a finding that the diffusion head and reservoir of Benalikhoudja are permanently joined, the latter does not. Because of this

ambiguity, Petitioner has not shown that the tamper-proof ring of Benalikhoudja necessarily results in a permanent joining of the reservoir and diffusion head, and we cannot conclude that this feature is inherently disclosed in the reference. *See In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (“Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.”).

Petitioner has not shown that Benalikhoudja discloses “a reservoir and a diffusion head permanently joined to the reservoir.” Thus, Petitioner has not shown, by a preponderance of the evidence, that proposed claim 3 is unpatentable as anticipated by Benalikhoudja. On the record before us, claim 3 is not unpatentable over Benalikhoudja alone.

2. Patentability over Benalikhoudja in View of Sakaida

Petitioner argues that claim 3 would have been obvious over Benalikhoudja in view of Sakaida. Amend Opp. 14–15. In doing so, Petitioner relies on two theories, each of which asserts a different combination of teachings from the references.

In the first theory, Petitioner relies on Sakaida for teaching “a reservoir and a diffusion head permanently joined to the reservoir.” *Id.* at 14. Petitioner argues as follows:

[T]he cross-hatching in Figure 1 of Sakaida indicates that injection mechanism 3 (i.e., the diffusion head) is a separate component from the generation chamber 2 (i.e., reservoir). Moreover, it can be seen that those two components are joined together in Sakaida. [[Ex. 1026] ¶ 12.] If anything, the joining in Sakaida, by its nature, appears more permanent than that shown in the '683 patent.

Amend Opp. 14. In the cited testimony, Petitioner's declarant, Dr. Garris, opines that Figure 1 of Sakaida "indicates that the injection mechanism 3 (i.e. diffusion head) and the chamber 2 (i.e. reservoir) are separate pieces (as indicated by different cross-hatching) that have been joined together."

Ex. 1026 ¶ 12. But Dr. Garris does not address how these separate pieces are allegedly joined together, or why a person of ordinary skill in the art would have understood the joining to be permanent in nature. Petitioner's argument and Dr. Garris's testimony do not persuade us that Sakaida teaches "a reservoir and a diffusion head permanently joined to the reservoir," as recited in claim 3, because they do not explain why the joining is "permanent."

In the second theory, Petitioner relies on Benalikhoudja as disclosing "a reservoir and a diffusion head permanently joined to the reservoir." *See* Amend Opp. 14–15 ("[B]ecause Benalikhoudja teaches permanent attachment, Benalikhoudja in view of Sakaida also necessarily teaches a diffusion head permanently joined to a reservoir."). We have already considered and rejected Petitioner's argument in that regard in the prior section of this Decision addressing anticipation by Benalikhoudja.

Petitioner has not shown, by a preponderance of the evidence, that the subject matter of claim 3 would have been obvious in view of Benalikhoudja and Sakaida. Based on the entirety of the record before us, we do not conclude that the subject matter of claim 3 would have been obvious over Benalikhoudja and Sakaida.

3. Patentability over other Prior Art

Petitioner states, without any argument, that proposed claim 3 is unpatentable over one or more of Bjorklund (Ex. 1007), Accaries (Ex. 1010), Moy (Ex. 1012), Howe (Ex. 1009), Bagwell (Ex. 1013), and Kizer (Ex. 1008). Amend Opp. 15. More specifically, Petitioner states “proposed substitute claim 3 is . . . unpatentable over the non-instituted grounds, which rely on one or more of these ‘other’ references.” *Id.* To the extent Petitioner’s statement purports to incorporate by reference arguments from its Petition, it fails. *See* 37 C.F.R. § 42.6(a)(3) (“Arguments must not be incorporated by reference from one document into another document.”). Further, the Petition lacks any arguments directed at claim 3, which, of course, was proposed only after the Petition was filed and which is narrower than claim 1.

Petitioner has not shown, by a preponderance of the evidence, that claim 3 is unpatentable over one or more of these additional references. Also, based on the entirety of the record before us including arguments made by Petitioner, we do not conclude that the subject matter of claim 3 is unpatentable over one or more of these references.

4. Patentability over Benalikhoudja and Allred
or Benalikhoudja and Poncelet

Petitioner relies on U.S. Patent No. 6,021,776 (“Allred”) (Ex. 1021) and Published PCT International Application WO 2006/018511 A2 (“Poncelet”) (Ex. 1022), separately, as disclosing a diffusion head that is permanently joined to a reservoir. Paper 75, 5. With regard to finding a motivation for one with ordinary skill in the art to combine the pertinent teachings of Benalikhoudja and either Allred or Poncelet, Petitioner asserts:

Not only did Petitioner identify Allred and Poncelet, but Petitioner provided a motivation for combination of the references. Petitioner's expert, Dr. Garris, explained that Allred and Poncelet each provide an alternative method of attachment between the reservoir and diffusion head, and that the attachment taught by Allred or Poncelet would have been known to persons of ordinary skill in the art working in liquid diffusion. Ex. 1026, ¶¶ 15–16, 18. [footnote omitted] Dr. Garris went on to explain the idea of permanently joining the reservoir and diffusion head as in Allred or Poncelet would have been an obvious alternative to the attachment in Benalikhoudja. Ex. 2014, 51:18–52:11. Such a substitution of attachment methods is nothing more than the use of known method in a known device with predictable results (*see KSR Int'l Co. v. Teleflex Inc.*, 550 US 398, 401 (2007)).

Id. at 6–7.

We have reviewed the testimony of Dr. Garris that Petitioner cites above. The only assertion of Petitioner supported by Dr. Garris' testimony is that it was previously known to permanently join a reservoir to a diffusion head, as evidenced by Allred and Poncelet. Ex. 1026 ¶¶ 15–16, 18.

Contrary to Petitioner's characterization, however, the cited testimony does not explain that permanent joining "would have been an obvious alternative" to Benalikhoudja's tamper-proof ring. *See id.* Nor has Dr. Garris explained why permanent joining would be considered equivalent to a tamper-proof ring. While "[e]xpress suggestion to substitute one equivalent for another need not be present to render such substitution obvious," (*In re Fout*, 675 F.2d 297, 301 (CCPA 1982)), that does not dispense with the requirement that there be some support in the record to conclude that the substitutes were equivalents.

Dr. Garris has not testified that one with ordinary skill in the art would have had reason to apply the teaching in Allred or Poncelet to permanently

join a diffusion head and a reservoir in the apparatus of Benalikhoudja. In other words, Dr. Garris has not provided reasoning with rational underpinning to explain what would have motivated one with ordinary skill in the art to make the proposed modification to Benalikhoudja. Rather, Petitioner asks that we assume, based solely on attorney argument, that permanent joining would have been considered an acceptable substitute for Benalikhoudja's tamper-proof ring.

Dr. Garris's testimony that Allred and Poncelet each teach an alternative method of providing permanent attachment between a reservoir and a diffusion head or diffusion means (Ex. 1026 ¶¶ 15, 16, 18) is insufficient to constitute a sufficient rationale to modify the device of Benalikhoudja to do the same. For the foregoing reasons, Petitioner has not shown that proposed claim 3 would have been obvious over either (1) Benalikhoudja and Allred, or (2) Benalikhoudja and Poncelet. Based on the entirety of the record, we have no reason to conclude that proposed claim 3 would have been unpatentable over either (1) Benalikhoudja and Allred, or (2) Benalikhoudja and Poncelet.

III. CONCLUSION

Based on the entirety of the record, including Petitioner's Opposition and subsequent briefing, we conclude that the Motion to Amend is responsive to a ground of unpatentability, does not enlarge the scope of the claims, and does not introduce new matter. Furthermore, we conclude that, based on the totality of the record before us including arguments made by Petitioner, a preponderance of the evidence does not demonstrate that proposed claim 3 is unpatentable over prior art.

IV. ORDER

In consideration of the foregoing, it is hereby
ORDERED that the Motion to Amend is *granted*;
FURTHER ORDERED that claim 3 as proposed by Patent Owner
shall be added to Patent 7,712,683 B2; and
FURTHER ORDERED that, because this Decision is final, a party to
the proceeding seeking judicial review of the Decision must comply with the
notice and service requirements of 37 C.F.R. § 90.2.

IPR2013-00179
Patent 7,712,683 B2

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