

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AROMA360, LLC,

Petitioner,

v.

AIR ESSCENTIALS, INC.,

Patent Owner.

Case IPR 2025-00706
U.S. Patent No. 10,583,449

PATENT OWNER'S CORRECTED REVISED
CONTINGENT MOTION TO AMEND

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Patent Trial and Appeal Board
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I. INTRODUCTION

Patent Owner, Air Essentials, Inc., respectfully moves under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 to conditionally amend challenged independent claims 1 and 7 of the '449 patent. In the event the Board finds claims 1, 4, and 7-10 (“the challenged MTA claims”) unpatentable, Patent Owner respectfully requests that the Board grant this Revised Contingent Motion to Amend (“this Motion”) with respect to the corresponding proposed substitute claims. Accordingly, this Motion is contingent upon a determination of unpatentability of the challenged MTA claims.

As shown below, this motion and the substitute claims meet all requirements of 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121. *See also Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, -01130, Paper 15 at 4 (PTAB Feb. 25, 2019) (precedential). Specifically, the substitute claims are i) presented in a claim listing; ii) reasonable in number; iii) responsive to a ground of unpatentability involved in the trial; iv) non-broadening; and v) supported by the written description. *Id.* at 4-8. Moreover, the motion confirms (hereby and as explained below) Patent Owner’s belief that the proposed substitute claims are patentable over all known prior art, whether alone or in combination. Having met its burdens, Patent Owner respectfully submits that it is entitled to the contingent substitute claims unless Petitioner “prove[s] all propositions of unpatentability.” *Aqua Products v. Matal*, 872 F.3d 1290, 1310 (Fed. Cir. 2017)(en banc).

II. STATEMENT OF RELIEF REQUESTED

This Motion is contingent upon the Board's finding that claims 1, 4, and 7-10 of the '449 Patent are found unpatentable. If claims 1 and 4 are found unpatentable, Patent Owner moves to substitute proposed claim 20 for original claim 1, as set forth in the attached claim appendix, and to cancel original claim 3. If claims 7-10 are found unpatentable, Patent Owner moves to substitute proposed claim 21 for original claim 7, as set forth in the attached claim appendix.

III. THE SUBSTITUTE CLAIMS SATISFY 37 C.F.R. § 42.121(a)

a. The Substitute Claims are Non-Broadening

As shown in the attached appendix, the proposed substitute claims only add non-broadening limitations which do not enlarge the scope of the corresponding original claims. On the contrary, the newly included recitation further specifies the scope of the original claims.

b. The Substitute Claims are Responsive to a Ground of Unpatentability

Patent Owner does not concede that the currently issued claims of the '449 Patent are rendered obvious by the asserted prior art. The proposed amendments further amplify distinctions between the asserted references and the '449 Patent.

Petitioner has alleged that Claims 1, 4, and 7-10 are unpatentable on the following grounds:

Ground 1: Unpatentable under 35 U.S.C. §103 as Obvious over Sevy

Ground 2: Unpatentable under 35 U.S.C. §103 as Obvious over Sevy in view of Gao

Ground 3: Unpatentable under 35 U.S.C. §103 as Obvious over Goubet

Ground 4: Unpatentable under 35 U.S.C. §103 as Obvious over Goubet in view of Kaiser

Ground 5: Unpatentable under 35 U.S.C. §102 as Anticipated by Gao

This Motion proposes amendments to independent claims 1 and 7 that are responsive to Petitioner's grounds in the instant proceeding. Proposed claim 20, to be substituted for independent claim 1, includes disclosure from unchallenged claim 3 pertaining to a drip tube. Proposed claim 21, to be substituted for independent claim 7, further clarifies the structure and function of the atomizer assembly and its components. None of the asserted references, individually or in combination, disclose or render obvious the recited claim features.

c. The Substitute Claims are Reasonable in Number

Patent Owner proposes two substitute claims, one for each challenged independent claim, per 37 C.F.R. § 42.121(a)(3).

IV. THE SUBSTITUTE CLAIMS SATISFY 37 C.F.R. § 42.121(b)

a. The Substitute Claims are Presented in a Claim Listing

As required by 37 C.F.R. § 42.121(b), this motion is accompanied by an appendix that lists the proposed substitute claims and clearly shows the proposed amendments to the claims in light of the corresponding original claims.

b. The Substitute Claims are Supported by the Original and Earlier Filed Disclosures for Each Claim

Pursuant to 37 C.F.R. § 42.121(b)(1) and (b)(2), the table below demonstrates that each substitute claim is supported by each earlier-filed disclosure as to which the benefit of the filing date is sought.¹ The ‘449 Patent issued from U.S. Application Serial No. 16/154,373 (Exhibit 1004) and is a continuation in part of U.S. Application Serial No. 15/353,951, which was a continuation in part of U.S. Application Serial No. 14/844,650, which was a continuation of U.S. Application Serial No. 13/838,634 (Exhibit 1005), which in turn claimed the benefit of U.S. Provisional Application Serial No. 61/694,500 (Exhibit 1006).

	Claim Recitation	Support from 61/694,500	Support from 16/154,373
Substitute Claim 20	A fluid dispersion assembly operatively engages a container of an operative fluid and a compressed air source and generates and discharges a fluid	Ex. 1006, page 21, line 23 – page 22, line 8; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 103, claim 1.

¹ The citations to the disclosure are not considered exhaustive nor meant to limit the meaning or construction of the corresponding claim terms.

	dispersion into a surrounding airspace, said fluid dispersion assembly comprising:		
	a diffusion unit at least partially defining an enclosed diffusion chamber,	Ex. 1006, page 22, lines 17-22; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 73, line 22 – page 74, line 2; Ex. 1004, pages 109-110, Figures 1-2 (reference numerals 100 and 112).
	a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace,	Ex. 1006, page 23, lines 20-24; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 70, lines 7-11; Ex. 1004, pages 109-110, Figures 1-2 (reference numeral 132).
	a diffusion assembly disposed in an operative engagement with said diffusion unit,	Ex. 1006, page 19, line 21 – page 20, line 5; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 2-7; Ex. 1004, pages 109-110, Figures 1-2 (reference numeral 200).
	wherein said diffusion assembly comprises an atomizer assembly, said atomizer assembly comprising an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture, and	Ex. 1006, page 20, lines 5-10; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 11-14; Ex. 1004, pages 109-110, Figures 1-2 (reference numerals 220, 222, 226, and 228).
	said atomizer air inlet channel interconnected to the compressed air source and said fluid inlet disposed in fluid	Ex. 1006, page 20, lines 7-10; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 14-17; Ex. 1004, pages 109-110, Figures 1-2 (reference

	communication with the operative fluid in the container,		numerals 227, FC).
	the compressed air and the operative fluid mix together in said mixing chamber to form the fluid dispersion,	Ex. 1006, page 20, lines 10-12; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 17-18; Ex. 1004, pages 109-110, Figures 1-2.
	a sealing washer disposed between said diffusion unit and the container, and	Ex. 1006, page 24, lines 17-20; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 14-17; Ex. 1004, pages 109-110, Figures 1-2.
	a drip tube disposed in an interconnecting relation between said enclosed diffusion chamber and said container through said sealing washer, said drip tube disposed to direct operative fluid accumulated in said enclosed diffusion chamber into said container and to minimize contact between said sealing washer and said operative fluid.	Ex. 1006, page 25, lines 1-13; Ex. 1006, pages 13-14, Figures 1-2.	Ex. 1004, page 75, lines 22-25; Ex. 1004, pages 109-110, Figures 1-2 (reference numeral 120).
Substitute Claim 21	A fluid dispersion assembly is operatively interconnected to a container of an operative fluid and a compressed air source to generate and discharge a fluid dispersion into a	Ex. 1006, page 21, line 23 – page 22, line 8; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 103, claim 1.

	surrounding airspace, said fluid dispersion assembly comprising:		
	a diffusion unit at least partially defining a diffusion chamber,	Ex. 1006, page 22, lines 17-22; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 73, line 22 – page 74, line 2; Ex. 1004, pages 109-110, Figures 1-2 (reference numerals 100 and 112).
	a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace,	Ex. 1006, page 23, lines 20-24; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 70, lines 7-11; Ex. 1004, pages 109-110, Figures 1-2 (reference numeral 132).
	a diffusion assembly disposed in an operative engagement with said diffusion unit,	Ex. 1006, page 19, line 21 – page 20, line 5; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 2-7; Ex. 1004, pages 109-110, Figures 1-2 (reference numeral 200).
	wherein said diffusion assembly comprises an atomizer assembly, said atomizer assembly comprising an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture,	Ex. 1006, page 20, lines 5-7; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 71, lines 11-14; Ex. 1004, pages 109-110, Figures 1-2 (reference numerals 220, 222, 226, and 228).
	said atomizer air inlet channel interconnected to the compressed air source and defining a compressed-air flow	Ex. 1006, page 27, line 24 – page 28, line 4; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 71, lines 14-17; Ex. 1004, pages 109-110, Figures 1-2 (reference

	path through said atomizer assembly;		numerals 227, FC).
	said fluid inlet disposed in fluid communication with the operative fluid in the container and comprising an opening into said mixing chamber, said opening disposed along said compressed-air flow path such that compressed air from the compressed air source flows past said opening of said fluid inlet into said mixing chamber,	Ex. 1006, page 28, lines 5-9; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 91, lines 15-19; Ex. 1004, page 114, Figures 6 (reference numerals 223'', 227, and 226).
	said mixing chamber disposed along said compressed-air flow path after said atomizer air inlet channel and before said atomizer exhaust aperture, and	Ex. 1006, page 28, lines 5-9; Ex. 1006, pages 14-15, Figures 2-3 ("air in").	Ex. 1004, page 79, lines 6-11; Ex. 1004, pages 109-110, Figures 1-2 (reference numerals 222, 226, and 228).
	said atomizer exhaust aperture spaced from said discharge port and opening laterally from said mixing chamber into said diffusion chamber along an exhaust path transverse to a direction in which said operative fluid enters said mixing chamber	Ex. 1006, page 28, lines 1-9; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 79, lines 6-11; Ex. 1004, pages 109-110, Figures 1-2 (reference numerals 222, 226, and 228).

	through said fluid inlet.		
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V. PATENTABILITY OVER THE PRIOR ART

In light of the Federal Circuit’s en banc decision in *Aqua Products v. Matal*, 872 F.3d 1290, 1296, 1310 (Fed. Cir. 2017), Patent Owner need not prove the patentability of the proposed substitute claims. And as the Patent Office has acknowledged before the Federal Circuit, and the Federal Circuit has held, Patent Owner adequately meets its duty of candor by simply confirming its belief that the proposed substitute claim is patentable over all known prior art, alone or combined. *Nike Inc. v. Adidas AG*, 812 F.3d 1326, 1350 (Fed. Cir. 2016) (overruled en banc on other grounds). Patent Owner so confirms its belief that the proposed substitute claims are patentable over all known prior art, alone or combined.

In an abundance of caution and purely in support of the above confirmation, Patent Owner nonetheless addresses several prior art references referenced in prior papers within this proceeding.

In the Preliminary Guidance, the Board preliminarily credited certain arguments advanced by Petitioner regarding the prior proposed substitute claims. For proposed claim 20, the Board preliminarily credited Petitioner’s position that a generic drip-return tube or drain at a chamber/container interface may be a routine design refinement. For proposed claim 21, the Board preliminarily credited

Petitioner's position that compressed air flowing past a fluid inlet may be disclosed or suggested by Venturi/eductor-type arrangements in the asserted art. Patent Owner's revised substitute claims address those preliminary concerns by reciting additional structural limitations. Revised substitute claim 20 provides additional structural characteristics of the claimed drip tube/sealing washer arrangement, and revised substitute claim 21 provides additional structural characteristics of the claimed atomizer exhaust aperture relationship. The amendments do not merely add generic liquid return or generic Venturi operation.

Substitute claim 20 requires "a sealing washer disposed between said diffusion unit and the container" and "a drip tube disposed in an interconnecting relation between said enclosed diffusion chamber and the container through said sealing washer." The revised claim further requires that the drip tube is "disposed to direct operative fluid accumulated in said enclosed diffusion chamber into the container and to minimize contact between said sealing washer and the operative fluid." Thus, the claim is not directed merely to any drain, drip path, or return of liquid to a reservoir. It requires a drip tube through the sealing washer that protects the sealing washer by minimizing contact with the operative fluid.

Sevy does not disclose or render obvious substitute claim 20. Sevy may disclose droplets or accumulated liquid returning toward a reservoir. But Sevy does not disclose "a sealing washer disposed between said diffusion unit and the

container,” nor does it disclose “a drip tube” extending “through said sealing washer” to direct accumulated operative fluid into the container while minimizing contact between the sealing washer and the operative fluid. Petitioner’s generic argument that a drip-return tube or drain may be a routine refinement does not address the sealing-washer-specific relationship now claimed. *See*, Exhibit 2016, Declaration of Gerald Micklow.

Gao does not cure that deficiency. Gao may disclose atomizer structures, fluid passages, or liquid return concepts, but it does not disclose the claimed arrangement in which the drip tube passes through a sealing washer disposed between the diffusion unit and the container. Nor does Gao disclose the function of minimizing contact between the sealing washer and the operative fluid. The asserted Sevy/Gao combination therefore does not disclose or render obvious substitute claim 20. *See*, Exhibit 2016, Declaration of Gerald Micklow.

Substitute claim 21 requires more than compressed air flowing past a fluid inlet. The revised claim requires that the “atomizer assembly” include “an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture.” The revised claim further requires that the “fluid inlet” includes “an opening into said mixing chamber,” with the opening disposed along the compressed-air flow path such that compressed air flows past the opening into the mixing chamber. In addition, the claim requires that the “atomizer exhaust aperture” is “spaced from said

discharge port” and “open[s] laterally from said mixing chamber into said diffusion chamber along an exhaust path transverse to a direction in which the operative fluid enters said mixing chamber through said fluid inlet.”

Sevy does not disclose substitute claim 21. Even if Sevy discloses a Venturi or eductor arrangement in which airflow draws liquid into an atomization region, Sevy does not disclose an “atomizer exhaust aperture” that is “spaced from said discharge port” and that “open[s] laterally from said mixing chamber into said diffusion chamber.” The revised claim is directed to the relationship between the mixing chamber, atomizer exhaust aperture, diffusion chamber, and discharge port. It is not satisfied merely because air flows past a liquid inlet. See, Exhibit 2016, Declaration of Gerald Micklow.

Goubet similarly does not disclose or render obvious substitute claim 21. Goubet discloses a diffuser head with a diffusion chamber, compressed air inlet, venturi cone, and oil inlet. However, Goubet directs droplets toward the reservoir and then through downstream concentric enclosure/baffle vaporization structures. Goubet does not disclose an “atomizer exhaust aperture” that is “spaced from said discharge port” and “open[s] laterally from said mixing chamber into said diffusion chamber.” Goubet’s downstream vaporization path is different from the claimed atomizer exhaust aperture/diffusion chamber relationship.

Kaiser does not cure the deficiencies of Sevy or Goubet. Kaiser is directed to electrospray combustion, not the claimed fragrance-fluid dispersion assembly. Kaiser does not disclose the drip tube/sealing washer relationship required by substitute claim 20. Kaiser also does not disclose the atomizer exhaust aperture/diffusion chamber relationship required by substitute claim 21.

Gao also does not render the revised claims unpatentable. For substitute claim 20, Gao does not disclose the claimed sealing washer protection arrangement. For substitute claim 21, Gao does not disclose an atomizer exhaust aperture spaced from the discharge port and opening laterally from the mixing chamber into the diffusion chamber. To the extent Gao discloses atomization, liquid return, or discharge structures generally, those disclosures are not the specific amended structures recited in the substitute claims.

Accordingly, substitute claim 20 is patentable because the asserted art fails to disclose or render obvious the claimed drip tube extending through a sealing washer to minimize contact between the sealing washer and operative fluid. Substitute claim 21 is patentable because the asserted art fails to disclose or render obvious the claimed atomizer exhaust aperture spaced from the discharge port and opening laterally from the mixing chamber into the diffusion chamber. See, Exhibit 2016, Declaration of Gerald Micklow.

VI. CONCLUSION

Patent Owner respectfully requests that, to the extent that original claims 1, 4, and 7-10 are deemed unpatentable, the Board substitute the proposed substitute claims. If claims 1 and 4 are found unpatentable, Patent Owner moves to substitute proposed claim 20, as set forth in the attached claim appendix, and to cancel original claim 3. If claims 7-10 are found unpatentable, Patent Owner moves to substitute proposed claim 21 as set forth in the attached claim appendix.

Dated: May 15, 2026

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of this Corrected Revised Contingent Motion to Amend has been served in its entirety on May 15, 2026, by causing it and accompanying documents (if any) to be electronically mailed to the following attorneys of record for the Petitioner:

Dated: May 15, 2026

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CLAIM APPENDIX

Underlining and strikethrough text show the modifications to the original claim being made in the corresponding substitute claim.

20. (Substitute for independent claim 1, if found unpatentable)

A fluid dispersion assembly operatively engages a container of an operative fluid and a compressed air source and generates and discharges a fluid dispersion into a surrounding airspace, said fluid dispersion assembly comprising:

a diffusion unit at least partially defining an enclosed diffusion chamber,

a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace,

a diffusion assembly disposed in an operative engagement with said diffusion unit,

wherein said diffusion assembly comprises an atomizer assembly,

said atomizer assembly comprising an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture, and

said atomizer air inlet channel interconnected to the compressed air source and said fluid inlet disposed in fluid communication with the operative fluid in the container, the compressed air and the operative fluid mix together in said mixing chamber to form the fluid dispersion,

a sealing washer disposed between said diffusion unit and the container, and

a drip tube disposed in an interconnecting relation between said enclosed diffusion chamber and said container through said sealing washer, said drip tube disposed to direct operative fluid accumulated in said enclosed diffusion chamber into said container and to minimize contact between said sealing washer and said operative fluid.

21. (Substitute for independent claim 7, if found unpatentable)

A fluid dispersion assembly is operatively interconnected to a container of an operative fluid and a compressed air source to generate and discharge a fluid dispersion into a surrounding airspace, said fluid dispersion assembly comprising:

a diffusion unit at least partially defining a diffusion chamber,

a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace,

a diffusion assembly disposed in an operative engagement with said diffusion unit, wherein said diffusion assembly comprises an atomizer assembly, said atomizer assembly comprising an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture,

said atomizer air inlet channel interconnected to the compressed air source and defining a compressed-air flow path through said atomizer assembly;

said fluid inlet disposed in fluid communication with the operative fluid in the container and comprising an opening into said mixing chamber, said opening disposed along said compressed-air flow path such that compressed air from the compressed air source flows past said opening of said fluid inlet into said mixing chamber,

said mixing chamber disposed along said compressed-air flow path after said atomizer air inlet channel and before said atomizer exhaust aperture, and

said atomizer exhaust aperture spaced from said discharge port and opening laterally from said mixing chamber into said diffusion chamber along an exhaust path transverse to a direction in which said operative fluid enters said mixing chamber through said fluid inlet.