

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AROMA360, LLC,

Petitioner,

v.

AIR ESSCENTIALS, INC.,

Patent Owner.

Case IPR 2025-00707
U.S. Patent No. 10,092,918

PATENT OWNER'S
REVISED CONTINGENT MOTION TO AMEND

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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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 5 of the '918 patent. In the event the Board finds claims 1, and 3-8 (“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, this 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 and 3-8 of the '918 Patent are found unpatentable. If claims 1, 3, and 4 are found unpatentable, Patent Owner moves to substitute proposed claim 16, as set forth in the attached claim appendix, for original claim 1. If claims 5-8 are found unpatentable, Patent Owner moves to substitute proposed claim 17 as set forth in the attached claim appendix, for original claim 5.

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 '918 Patent are rendered obvious by the asserted prior art. The proposed amendments further amplify distinctions between the asserted references and the '918 Patent.

Petitioner has alleged that Claims 1, and 3-8 are unpatentable on the following grounds:

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

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

Ground 3: Unpatentable under 35 U.S.C. §103 as Obvious over Gao-2

Ground 4: Unpatentable under 35 U.S.C. §103 as Obvious over Gao-2 in view of Goubet.

This Motion proposes amendments to independent claims 1 and 5 that are responsive to Petitioner's grounds in the instant proceeding. Proposed claim 16, to be substituted for independent claim 1, further clarifies the nature of the mixing chamber. Proposed claim 17, to be substituted for independent claim 5, 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 ‘918 Patent issued from U.S. Application Serial No. 15/353,951 (Exhibit 1004), which is 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 15/353,951
Substitute Claim 16	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:	Ex. 1006, page 21, line 23 – page 22, line 8; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 184, claim 1.
	a diffusion unit at least partially defining an enclosed diffusion chamber, wherein said	Ex. 1006, page 22, lines 17-22; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 158, lines 23-25; Ex. 1004, pages 190-191, Figures 1-2 (reference

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

	diffusion chamber comprises		numerals 100 and 112).
	an upper chamber and a lower chamber,	Ex. 1006, pages 13-15, Figures 1-3 (upper and lower areas of figure reference 112).	Ex. 1004, page 178, lines 5-7; Ex. 1004, page 195, Figure 6 (reference numerals 114'' and 115'').
	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 163, lines 20-24; Ex. 1004, pages 190-191, 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 166, lines 4-6; Ex. 1004, pages 190-191, Figures 1-2 (reference numeral 200).
	said diffusion assembly is disposed between said upper chamber and said lower chamber,	Ex. 1006, pages 13-15, Figures 1-3 (upper and lower areas of figure reference 112).	Ex. 1004, page 178, lines 5-7; Ex. 1004, page 195, Figure 6.
	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 5-10; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 179, lines 13-17; Ex. 1004, page 195, Figure 6.
	said atomizer air inlet channel interconnected to the	Ex. 1006, page 20, lines 7-10; Ex.	Ex. 1004, page 178, line 22 – page 179, line 5; Ex.

	compressed air source and said fluid inlet disposed in fluid communication with the operative fluid in the container	1006, pages 13-15, Figures 1-3.	1004, pages 190-191, Figures 1-2 (reference numerals 227, FC).
	and opening into said mixing chamber at an opening of said fluid inlet intersecting said compressed-air flow path,	Ex. 1006, page 27, line 15 –page 28, line 9; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 179, lines 2-5 & 13-17; Ex. 1004, pages 190-191, Figures 1-2 (reference numeral 227).
	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 179, lines 6-12; Ex. 1004, pages 190-191, Figures 1-2.
	said atomizer exhaust aperture spaced from said discharge port and opening laterally from said mixing chamber into said lower chamber along an exhaust path transverse to a direction in which the operative fluid enters said mixing chamber through said fluid inlet,	Ex. 1006, page 28, lines 1-9; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 171, line 10 – page 172, line 2; Ex. 1004, page 194, Figure 5 (reference numerals (226, 228).
	wherein the compressed air and the operative fluid are mixed together in said	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.

	mixing chamber to form the fluid dispersion.		
Substitute Claim 17	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:	Ex. 1006, page 21, line 23 – page 22, line 8; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 184, claim 1.
	a diffusion unit at least partially defining a diffusion chamber, wherein said diffusion chamber comprises	Ex. 1006, page 22, lines 17-22; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 158, lines 23-25; Ex. 1004, pages 190-191, Figures 1-2 (reference numerals 100 and 112).
	an upper chamber and a lower chamber,	Ex. 1006, pages 13-15, Figures 1-3 (upper and lower areas of figure reference 112).	Ex. 1004, page 178, lines 5-7; Ex. 1004, page 195, Figure 6 (reference numerals 114'' and 115'').
	a discharge port disposed in fluid communication between said diffusion chamber and the surrounding airspace, and	Ex. 1006, page 23, lines 20-24; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 163, lines 20-24; Ex. 1004, pages 190-191, Figures 1-2 (reference numeral 132).
	a diffusion assembly disposed in an operative engagement	Ex. 1006, page 19, line 21 – page 20, line 5; Ex. 1006,	Ex. 1004, page 166, lines 4-6; Ex. 1004, pages 190-

	with said diffusion unit, wherein said diffusion assembly comprises an atomizer assembly, said diffusion assembly is disposed between said upper chamber and said lower chamber,	pages 13-15, Figures 1-3. reference numerals 227 and FC).	191, Figures 1-2 (reference numeral 200).
	said atomizer assembly comprises an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture,	Ex. 1006, page 20, lines 5-10; Ex. 1006, pages 13-15, Figures 1-3.	Ex. 1004, page 179, lines 13-17; Ex. 1004, page 195, Figure 6.
	said fluid inlet is in fluid communication with the operative fluid in the container and comprises an opening into said mixing chamber, said opening disposed along said compressed-air flow path such that said fluid inlet is substantially perpendicular to said compressed-air flow path as the compressed air flows across said opening;	Ex. 1006, page 27, line 24 – page 28, line 4; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 178, line 22 – page 179, line 5; Ex. 1004, pages 190-191, Figures 1-2 (reference numerals 227, FC).
	said mixing chamber disposed along said compressed-air flow path after said atomizer air inlet	Ex. 1006, page 28, lines 5-9; Ex. 1006, pages 14-15, Figures 2-3 (“air in”).	Ex. 1004, page 179, lines 8-12; Ex. 1004, page 190-195, Figures

	channel and before said atomizer exhaust aperture, and		1-6 (reference numeral 226).
	said atomizer exhaust aperture is spaced from said discharge port and opens laterally from said mixing chamber into said lower chamber along an exhaust path that is transverse to said fluid inlet.	Ex. 1006, page 28, lines 1-9; Ex. 1006, pages 14-15, Figures 2-3.	Ex. 1004, page 179, lines 6-12; Ex. 1004, pages 195, Figure 6.

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.

Patent Owner's revised substitute claims remove the prior "increasing in dimension" language and clarify the relevant structure instead with reference to the atomizer assembly, mixing chamber, atomizer exhaust aperture, lower chamber, and discharge port relationship. The revised substitute claims are patentable because the asserted references do not disclose or suggest the specific atomizer exhaust structure and flow-path relationship now claimed.

In particular, substitute claims 16 and 17 require that the "atomizer assembly" include "an atomizer air inlet channel, a fluid inlet, a mixing chamber, and an atomizer exhaust aperture." The revised claims further require that the "atomizer exhaust aperture" is "spaced from said discharge port" and "open[s] laterally from said mixing chamber into said lower chamber along an exhaust path transverse to a direction in which the operative fluid enters said mixing chamber through said fluid inlet." This structure is not a generic outlet, final discharge port, or downstream mist passage. Rather, the claims recite a specific upstream atomizer exhaust aperture that opens laterally from the mixing chamber into the lower chamber and is distinct from the discharge port.

Goubet does not disclose or render obvious this amended relationship. Goubet discloses an essential oil diffuser in which oil droplets are produced in a diffusion chamber and initially directed toward the inside of the reservoir. Goubet then relies on downstream vaporization structures, including concentric circular enclosures and

a baffle path, to break droplets into microdroplets before discharge. Goubet 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 lower chamber.” Instead, Goubet’s structure directs droplets toward the reservoir and then through a downstream concentric enclosure/baffle arrangement. That is materially different from the claimed atomizer exhaust aperture/lower chamber relationship.

This distinction is particularly important for substitute claim 17. Even if Petitioner contends that Goubet discloses a substantially perpendicular fluid inlet, the revised claim does not rely on perpendicularity alone. The revised claim requires an “atomizer exhaust aperture” that “open[s] laterally from said mixing chamber into said lower chamber” and is “spaced from said discharge port.” Goubet does not disclose that additional structure.

Gao-2 also does not disclose or render obvious the revised substitute claims. Gao-2 discloses an atomization core and a liquid suction tube extending into an essential oil bottle, and Gao-2 describes the essential oil bottle as serving as an atomization chamber. Gao-2 also discloses a downward-facing spray outlet in the atomization core. That arrangement does not disclose an “atomizer exhaust aperture” that opens “laterally from said mixing chamber into said lower chamber.” Nor does Gao-2 disclose the claimed relationship in which the atomizer exhaust aperture is “spaced from said discharge port.”

Petitioner should not be permitted to map Gao-2's downstream mist passage holes or mist outlet to the claimed "atomizer exhaust aperture." The claim language distinguishes the atomizer exhaust aperture from the discharge port by requiring that the atomizer exhaust aperture be "spaced from said discharge port." The claim also locates the atomizer exhaust aperture at the outlet of the mixing chamber, opening laterally into the lower chamber. Gao-2's downstream discharge structures do not satisfy that arrangement.

Kaiser does not cure the deficiencies of Goubet or Gao-2. Kaiser is directed to electrospray combustion, fuel dispersion by multiplexed electrosprays, and catalytic meshes in a combustion environment. Kaiser does not disclose a fluid dispersion assembly having the claimed upper/lower chamber arrangement, and it does not disclose an "atomizer exhaust aperture" that is "spaced from said discharge port" and "open[s] laterally from said mixing chamber into said lower chamber." Petitioner has not shown why a person of ordinary skill would have modified Goubet or Gao-2 using Kaiser to arrive at the revised claims.

Accordingly, the asserted references fail to disclose or render obvious the specific amended atomizer exhaust aperture relationship recited in substitute claims 16 and 17.

VI. CONCLUSION

Patent Owner respectfully requests that, to the extent that original claims 1 and 3-8 are deemed unpatentable, the Board substitute the proposed substitute claims. If claims 1, 3 and 4 are found unpatentable, Patent Owner moves to substitute proposed claim 16, as set forth in the attached claim appendix. If claims 5-8 are found unpatentable, Patent Owner moves to substitute proposed claim 17 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 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

Respectfully submitted,

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CLAIM APPENDIX

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

16. (Substitute for independent claim 1, if claims 1, 3 and 4 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, wherein said diffusion chamber comprises an upper chamber and a lower 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 diffusion assembly is disposed between said upper chamber and said lower chamber,

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.

[[and]] said fluid inlet disposed in fluid communication with the operative fluid in the container, wherein the compressed air and opening into said mixing chamber at an inlet junction intersecting said compressed airflow path,

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 lower chamber along an exhaust path transverse to a direction in which the operative fluid enters said mixing chamber through said fluid inlet,

the operative fluid are mixed together in said mixing chamber to form the fluid dispersion.

17. (Substitute for independent claim 5, if claims 5-8 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, wherein said diffusion chamber comprises an upper chamber and a lower chamber,

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

a diffusion assembly disposed in an operative engagement with said diffusion unit, wherein said diffusion assembly comprises an atomizer assembly, said diffusion assembly is disposed between said upper chamber and said lower chamber[.],

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

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

said fluid inlet is in fluid communication with the operative fluid in the container and comprises an opening into said mixing chamber, said opening disposed along said compressed-air flow path such that said fluid inlet is substantially perpendicular to said compressed-air flow path as the compressed air flows across said opening;

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

said fluid inlet is substantially perpendicular to a flow path of compressed air from the compressed air source as the compressed air flows across said fluid inlet.