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COATS & BENNETT, PLLC 1400 Crescent Green, Suite 300 Cary, NC 27518			KEYWORTH, PETER	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ABDELKADER GAID and JEROME LEPARC

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Appeal 2019-004705  
Application 14/429,250  
Technology Center 1700

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Before CATHERINE Q. TIMM, KAREN M. HASTINGS, and  
LILAN REN, *Administrative Patent Judges*.

REN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 34–37, 39–43, and 47–54. *See* Final Act. 2, 4, 5, 6, 7, 9. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as “Veolia Water Solutions & Technologies Support.” Appeal Br. 2.

### CLAIMED SUBJECT MATTER

The claims are directed to “a technique for treating water that combines flotation and gravity filtering.” Spec. 1:8–9. Claims 34 and 48, reproduced below, are illustrative of the claimed subject matter:

34. An installation for treating water characterized in that it comprises:

means for intake of water to be treated;

a zone of coagulation;

a flotation reactor comprising an inlet connected to an outlet of said coagulation zone;

a gravity filter;

said flotation reactor being at least partly superimposed on said gravity filter and communicating with it so that the water coming from said flotation reactor flows gravitationally into said gravity filter;

characterized in that said gravity filter has a bed of filtering material distributed over a height of 1.5 m to 3.0 m; and

means for injecting a sweeping fluid into the interface between the flotation reactor and said gravity filter, said means for injecting comprising a system of bars for injecting the sweeping fluid that extends on the surface of said interface.

48. A wastewater treatment installation for treating wastewater through a flotation and gravity filtration process, the wastewater treatment installation comprising:

an inlet for receiving the wastewater to be treated;

a flotation reactor;

a coagulation zone disposed upstream of the flotation reactor and configured to inject a coagulant into the wastewater upstream of the flotation reactor;

a gravity filter disposed in the flotation reactor;

wherein the flotation reactor is configured to at least be superimposed on said gravity filter;

a sweeping fluid inlet formed in the installation and configured to receive a sweeping fluid;

a series of sweeping fluid injector bars disposed over an upper surface of said gravity filter and communicatively

connected to the sweeping fluid inlet for receiving the sweeping fluid;

the sweeping fluid injector bars including an array of orifices for dispersing the sweeping fluid from the injector bars;  
and

wherein the sweeping fluid injector bars and orifices are disposed and configured to emit the sweeping fluid therefrom such that the sweeping fluid sweeps horizontally across the upper surface of the gravity filter and cleans the upper surface of the gravity filter.

Claims Appendix (Appeal Br. 14, 16).

#### REFERENCES

The prior art references relied upon by the Examiner are:

Name	Reference	Date
Kikindai	US 3,479,281	Nov. 18, 1969
Ross	US 5,089,147	Feb. 18, 1992
Ditzler	US 5,114,576	May 19, 1992
Eades	GB 2263694A	Apr. 8, 1993
Gaid	WO 2011/131523 A1	Oct. 10, 2011

#### REJECTIONS

Claim 34–36 and 39–43 are rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Eades in view of Gaid and Kikindai. Final Act. 2, 5.

Claim 37 is rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Eades in view of Gaid, Kikindai, and Ditzler. Final Act. 5.

Claim 34 and 47 are rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Eades in view of Gaid, and Ross. Final Act. 6.

Claim 48 and 52–54 are rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Eades in view of Ross. Final Act. 7.

Claims 49–51 rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Eades in view of Ross and Gaid. Final Act. 9.

### OPINION

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Cf. Ex parte Frye*, 2010 WL 889747, \*4 (BPAI 2010) (precedential) (cited with approval in *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”)). After having considered the evidence presented in this Appeal and each of Appellant’s contentions, we are not persuaded that reversible error has been identified, and we affirm the Examiner’s § 103 rejections for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.<sup>2</sup>

#### *Claim 34*<sup>3</sup>

Appellant argues that the Examiner erred in construing the claim term “the interface between the flotation reactor and said gravity filter” and “the surface of said interface” as recited in claim 34.<sup>4</sup> According to Appellant, the recited “interface” “means where the water in the flotation reactor meets the

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<sup>2</sup> In the Appeal Brief, Appellant raises arguments with regard to dependent claims 40–42 and 52 prior to arguments for independent claims. *See* Appeal Br. 3. The analyses in this Opinion, on the other hand, begin with the independent claims first.

<sup>3</sup> Appellant does not separately argue for the claims dependent from claim 34 and these dependent claims stand or fall with claim 34. Appeal Br. 5–10. These claims stand or fall together. *See id.*; *see also* 37 C.F.R. § 41.37(c)(1)(vii).

<sup>4</sup> We note that the terms “the interface” and “the surface” recited in claim 34 lack antecedent basis.

gravity filter” whereas “[t]he surface of the interface means the surface of the gravity filter.” Appeal Br. 6, 7. Based on these definitions, Appellant argues that the air nozzle illustrated in Eades Figure 5 is positioned differently and therefore does not teach or suggest the recited apparatus. *Id.* at 7 (stating that “the air nozzle in Eades is positioned generally midway between the influent nozzle 13 and the upper surface of the gravity filter 33”). Appellant also argues that a skilled artisan would have placed Kikindai’s air diffusing system midway above the gravity filter. *Id.* at 9.

We are not persuaded by Appellant’s arguments. First and foremost, claim 34 is an apparatus claim and based on Appellant’s own definitions, Appellant’s argument fails to structurally distinguish the prior art. “[A]pparatus claims cover what a device *is*, not what a device *does*.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990). Claim 34 requires a structure of “a system of bars” that performs the function of “injecting a sweeping fluid into the surface” but does not require a location of such a system, nor a location of the interface relative to the recited system. Appellant’s argument regarding the location of the prior art air diffusing system and the location of the interface is therefore not commensurate in scope with the claim language. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (“Many of appellant’s arguments fail from the outset because . . . they are not based on limitations appearing in the claims.”).

Second, Appellant’s proposed definitions are not supported by the Specification at 13:8–10 cited by Appellant. *See* Appeal Br. 7. Specification at 13:8–10 describes “interface I” illustrated in Figure 2 which is “a preferred embodiment” that does not limit the invention. Spec. 10:20–23

(“Other features and advantages of the invention shall appear more clearly from the following description of a preferred embodiment, given by way of a simple illustrative and non-exhaustive example and from the appended figures.”). We decline to limit the claim language based on the description of a figure illustrating a preferred embodiment. *Bayer AG v. Biovail Corp.*, 279 F.3d 1340, 1348 (Fed. Cir. 2002). In any event, the Specification at 13:8–10 provides no more than that “[t]he interface I is the upper surface of the gravity filter 33 and more specifically of its filtering mass 330” which differs from Appellant’s proposed definition. *See* Appeal Br. 6 (arguing that “‘interface’, as used in claim 34, means where the water in the flotation reactor meets the gravity filter”). Appellant cites no other intrinsic or extrinsic source for the proposed definitions of “interface” and “surface of the interface.” *See id.* at 6–7.

We further note that the Examiner explains that “the definition provided by Appellant in their specification provides a broader definition (upper surface of the gravity filter) followed by a narrower definition (upper surface of its filtering mass)” and therefore “limiting the gravity filter height to only the height of the filtering mass is in error as the claims never recite such a limitation.” Ans. 5. Appellant’s argument does not address this aspect of the Examiner’s obviousness analysis and is therefore unpersuasive. *See* Reply Br. 4–6.

Lastly, Appellant’s arguments lack supporting evidence and are therefore unpersuasive. *See* Appeal Br. 9 (arguing, without evidentiary support, as to how a skilled artisan would have combined the prior art structures). “Attorneys’ argument is no substitute for evidence.” *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1581 (Fed. Cir. 1989).

*Claim 48*<sup>5</sup>

Appellant argues that “[c]laim 48 requires that the sweeping fluid injection bars be designed to emit a sweeping fluid therefrom and across the upper surface of the gravity filter” and that the prior art air diffuser is not designed for this function.” Appeal Br. 11.<sup>6</sup> Appellant argues that the prior art “air diffuser only performs one function.” *Id.* at 12.

As we noted *supra*, “apparatus claims cover what a device *is*, not what a device *does*.” *Hewlett-Packard Co.*, 909 F.2d at 1468. Appellant does not structurally distinguish the prior art apparatus. Appellant’s argument that the prior art air diffuser emits air instead of a washing liquid (Appeal Br. 12) is directed to the purpose instead of the structure of the device and is therefore unpersuasive of reversible error in the Examiner’s finding of structural identity.

Appellant also argues that the claim term “sweeping fluid” “means a fluid that cleans or washes” but does not sufficiently explain why the recited “sweeping fluid” excludes the prior art air. *See* Appeal Br. 12. Appellant

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<sup>5</sup> Appellant does not separately argue for the claims dependent from claim 48 and these dependent claims stand or fall with claim 48. Appeal Br. 10–12. These claims stand or fall together. *See id.*; *see also* 37 C.F.R. § 41.37(c)(1)(vii).

<sup>6</sup> Appellant also states that the Examiner’s rationale to combine the references for the rejection of claim 48 is difficult to understand and as a result, Appellant has not had a fair opportunity to address the rationale. Appeal Br. 11. We, however, agree with the Examiner that the rationale is provided sufficiently clearly. *See* Ans. 7 (explaining certain grammatical errors in the rationale and providing the rationale to combine, with corrections). In Appellant’s Reply Brief in response to the Examiner’s Answer that restates the rationale to combine, Appellant does not address the rationale, nor does Appellant state that it is difficult to understand. *See* Reply Br. 6–9.

does not explain why the recited “fluid” is limited to liquid, nor does Appellant compositionally distinguish the prior art. *See id.*

Based on the foregoing, we sustain the rejection of claim 48.

*Claim 52*<sup>7</sup>

Claim 52 depends from claim 48 and additionally recites “wherein said injector bars comprise tubes perforated by the orifices and wherein the diameter of said orifices is from 30 to 40 mm; and wherein the distance between two consecutive orifices in said tube is from 100 to 150 mm.” Appellant argues that the Examiner reversibly erred in rejecting claim 52 because parameters such as the diameter of the orifice are not recognized as result effective variables in the prior art. Appeal Br. 3. The Examiner responds that “modifying the proportions (sizing) and degree (spacing) provide a finite number of identifiable, predictable solutions (rate of fluid flow through the orifices)” which is well within the ordinary skill. Ans. 4. It has been generally held that ordinarily changes in sizes of known elements are within the level of skill in that art, especially in the absence of unexpected results or criticality. *See In re Rose*, 220 F.2d 459, 463 (CCPA 1955) (holding that “the size of the article under consideration ... is not ordinarily a matter of invention”); *see In re Rinehart*, 531 F.2d 1048, 1053 (CCPA 1976) (mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled); *see also Gardner v. TEC Sys., Inc.*, 725 F.2d 1338, 1349 (Fed. Cir. 1984) (holding that, where the only difference between the

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<sup>7</sup> Appellant argues for claims 40–42 and 52 with claim 52 as representative. Appeal Br. 3. These claims stand or fall together. *See id.*; *see also* 37 C.F.R. § 41.37(c)(1)(vii).

prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device).

Appellant does not rebut the Examiner's finding that the recited dimensional changes are within the ordinary skill and do not produce unexpected results. *See Reply Br. 3.* We therefore affirm the rejection of claim 52.<sup>8</sup>

### CONCLUSION

The Examiner's rejections are affirmed.

More specifically,

### DECISION SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
34–36, 39–43	103(a)	Eades, Gaid, Kikindai	34–36, 39–43,	
37	103(a)	Eades, Gaid, Kikindai, Ditzler	37	
34, 47	103(a)	Eades, Gaid, Ross	34, 47	
48, 52–54	103(a)	Eades, Ross	48, 52–54	
49–51	103(a)	Eades, Ross, Gaid	49–51	
<b>Overall Outcome:</b>			34–37, 39–43, 47–54	

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<sup>8</sup> We decline to reach – as is unnecessary – the issue of whether the Examiner reversibly erred in finding that these recited parameters are result effective variables.

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TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED