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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JONATHAN M. JAUSE, KEVIN JOSEPH LOW, and
DENNIS JOHN DUHAMEL

Appeal 2019-005290
Application 14/429,087
Technology Center 3700

Before DANIEL S. SONG, STEFAN STAICOVICI, and
CHARLES N. GREENHUT, *Administrative Patent Judges*.

GREENHUT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–6, 9, 12–18, 20, and 21. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as United Technologies Corporation. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a fastened joint for a tangential on board injector. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A combustor assembly for a gas turbine engine comprising:
 - a combustor shell;
 - a tangential onboard injector;
 - a case;
 - a joint for securing the combustor shell, tangential onboard injector and case together, the joint having a combustor flange integral to the combustor shell, a tangential onboard injector flange integral to the tangential onboard injector, and a case flange integral to the case but separate and discrete from the combustor flange; and
 - wherein the combustor flange, the tangential onboard injector flange and the case flange are secured together, wherein the combustor flange includes first and second sets of holes respectively receiving first and second fasteners that are different than one another, the first and second fasteners cooperate to secure the combustor flange, the tangential onboard injector flange and the case flange together, the combustor flange in axial abutment with the tangential onboard injector flange and the case flange, wherein the second fastener is a nut and a bolt that extends through the combustor flange, the tangential onboard injector flange and the case flange, wherein the first fastener is a rivet.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Porte	US 6,123,170	Sept. 26, 2000
Coulon	US 6,787,947 B2	Sept. 7, 2004
Marnas	US 2005/0172632 A1	Aug. 11, 2005
Pieussergues	US 2009/0060723 A1	Mar. 5, 2009
Dizdarevic	US 2010/0202823 A1	Aug. 12, 2010
Hernandez	US 2012/0073259 A1	Mar. 29, 2012

REJECTIONS

Claims 1–6, 9, 12, and 13² are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Final Act. 2.

Claims 1–4, 9, 14, 20, and 21 are rejected under 35 U.S.C. § 103(a) as unpatentable over Pieussergues and Porte. Final Act. 3.

Claims 5, 6, 16, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pieussergues, Porte, and Mamas. Final Act. 13.

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pieussergue, Porte, and Hernandez. Final Act. 16.

Claim 15 rejected under 35 U.S.C. § 103(a) as being unpatentable over Pieussergues, Porte, and Coulon. Final Act. 18.

Claim 17 rejected under 35 U.S.C. § 103(a) as being unpatentable over Pieussergues, Porte, Mamas, Dizdarevic. Final Act. 19.

² Claim 8 stands cancelled and thus appears to have been inadvertently included in the Examiner's rejection statement.

OPINION

Indefiniteness

Claim 1 is representative of the claims subject to the indefiniteness rejection under 37 C.F.R. § 41.37(c)(1)(iv). Appellant argues that claim 9 has been amended to remove the problematic language. App. Br. 6. However, Appellant's assertion in this regard is not correct. Ans. 4; *compare* claim 1, *with* claim 9 in Claims App.

The Examiner indicated that the recitations of “the second fastener” and “the first fastener” introduced ambiguity into the claim because, in the context of the antecedent recitation “first and second sets of holes respectively receiving first and second fasteners,” it could not be determined with reasonable certainty whether: (1) only single fasteners of each type, first and second, are required by the “first and second fasteners” limitation; and (2) if more than one fastener of each type is required by the “first and second fasteners” limitation, whether the seemingly singular subsequent recitations of “the first fastener” and “the second fastener” should be understood to refer, respectively, to *each* of the first and second fasteners, *only one*, or *at least one*, of the first and second fasteners. Final Act. 3; Ans. 3–4.

The Examiner, practicing compact prosecution (*See* MPEP § 2173.06), proceeds to examine the claims on the merits, stating that “According to Applicant's remarks, it appears that the first recitation refers to a single first fastener and a single second fastener.” Final Act. 3.

The entirety of Appellant's argument in the Appeal Brief concerning the indefiniteness rejection is:

With respect to claim 1, no amendment is required. The Examiner correctly interprets the first and second fasteners in

claim 1. Antecedent basis is met. Thus, there is no reason to amend claim 1.

App. Br. 5.

First, although Appellant and the Examiner appear to have agreed upon an understanding of the Appellant's *intended* claim scope, this does not remedy the shortcomings associated with the express language of the claim. Further, though we need not make this determination for the purposes of addressing the issues associated with the prior-art rejections before us, we think the more likely interpretation of the "first and second sets of holes respectively receiving first and second fasteners" limitation of claim 1 is that *more than one* of each type of first and second fasteners is required. This is because, although in a purely mathematical context a "set" can refer to a group consisting of only one item, the ordinary meaning of "set" refers to a group of items.³ Thus if "first and second *sets* of holes" (emphasis added) respectively receive "first and second fasteners" the implication is that there must be at least a set of first fasteners and a set of second fasteners. This is consistent with Appellant's preferred embodiment. *See* Figs. 2–4. However, as mentioned above, this renders the seemingly singular subsequent recitations of "the first fastener" and "the second fastener" problematic because it is unclear if these recitation should be understood to refer, respectively, to *each* of the first and second fasteners, *only one*, or *at least one*, of the first and second fasteners, for example.

³ The American Heritage® Dictionary of the English Language, Fifth Edition copyright ©2020 by Houghton Mifflin Harcourt Publishing Company *retrieved from* <https://ahdictionary.com/word/search.html?q=set> *last accessed* June 17, 2020.

Ultimately the claim language leaves the reader to guess as how to reconcile the seemingly internally inconsistent recitations of “the second fastener” and “the first fastener” in the context of the antecedent recitation “first and second sets of holes respectively receiving first and second fasteners.” Appellant’s remarks (Appeal Br. 5; Reply. Br. 3–4) do not address the merits of this issue. As the Examiner correctly points out, “just because Examiner has correctly guessed the [intended] interpretation of the claim does not mean that [the claim] satisfies the requirements under 35 USC 112, second paragraph for clarity.” Ans. 3. In prosecution before the PTO “it is the applicants’ burden to precisely define the invention, not the PTO’s.” *In re Morris*, 127 F. 3d 1048, 1056 (Fed. Cir. 1997). “An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.” *In re Zletz*, 893 F. 2d 319, 322 (Fed. Cir. 1989). The Examiner is justified in requiring the Appellant to resolve the aforementioned ambiguities during prosecution while Appellants have the opportunity to do so. *See Ex Parte Miyazaki*, 89 USPQ2d 1207, 1211 (BPAI 2008) accord *In re Packard*, 751 F.3d 1307, (Fed. Cir. 2014). Thus, the rejection under 35 U.S.C. § 112, second paragraph is affirmed.

Pieussergues

Claims 1–4, 9, 14, 20, and 21 subject to the rejection predicated on the combination of Pieussergues and Porte are argued as group (Appeal Br. 6) with no separate arguments set forth for the remaining prior-art rejections. We select claim 1 as representative of claims 1–4, 9, 14, 20, and 21 insofar as the rejection based only on Pieussergues and Porte is concerned and

presume Appellant intended to argue the remaining claims based solely on dependency.

The Examiner found the basic combustor of claim 1 in Pieussergues. Final Act. 3–4 (annotating Pieussergues, Fig. 5). It is undisputed that the embodiment depicted in Figure 5 of Pieussergues discloses a “combustor flange in axial abutment with the tangential onboard injector flange and the case flange” as recited in claim 1. Appellant’s sole argument relates to the appropriateness of the Examiner’s reliance on the combustion chamber illustrated in Figure 5 of Pieussergues because Pieussergues identifies that combustion chamber as prior art and a flange abutment arrangement as recited in claim 1 is omitted from Pieussergues’s preferred embodiment. Appeal Br. 6 (citing Pieussergues, Figs. 1, 2; paras. 30–31).

A bright-line rule prohibiting an examiner’s reliance on prior-art admissions in patent publications would make little sense. “Rigid preventative rules that deny factfinders recourse to common sense . . . are neither necessary under our case law nor consistent with it.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). Furthermore, even if Pieussergues could be said to “teach away” from the embodiment Pieussergues improved upon, “there is no rule that a single reference that teaches away will mandate a finding of nonobviousness.” *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006). Arguments, such as Appellant’s, that references necessarily teach away from that which they acknowledge as prior art at the time of their filing would seemingly be overcome by the simple practice of citing an *even older* reference primarily disclosing that acknowledged prior art itself. A requirement to uncover such references would seem to pose an administrative burden having little substantive benefit because those older references would essentially be

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cumulative for the subject matter for which the examiner relies upon them. Neither applicants nor examiners are encouraged to rely on cumulative references in the course of patent prosecution. *See, e.g.*, MPEP §§ 609.04(A), 1207.01. Our reviewing court’s predecessor rejected the notion that, when formulating a rejection, the PTO cannot propose to omit the structure which the inventor in a cited prior-art reference regarded as her contribution to the art. *See In re Umbarger*, 407 F. 2d 425, 430 (CCPA 1969). Just because purportedly “better alternatives” may exist in the prior art it “does not mean that an inferior combination is inapt for obviousness purposes.” *In re Mouttet*, 686 F.3d 1322, 1334 (Fed. Cir. 2012).

The better rule, and the proper one, is the one applied by the Examiner, that cited references should be considered on a case-by-case basis, in their entirety, and in context, for that which they fairly teach those of skill in the art. Ans. 5 (citing MPEP § 2123(I)). Here, Appellant may correctly point out that “[t]he entire point of Pieussergues is to utilize the separator at this location and joint.” Appeal Br. 6 (citing Pieussergues 30–31; Fig. 2). However, as the Examiner correctly points out, Pieussergues’s entire discussion of the separator’s benefits relates to the flow characteristics it produces and nothing is said of any benefits arising out of the specific flange arrangement depicted in Figures 1 and 2. *See, e.g.*, Pieussergues, paras. 30–33. *From the figures alone*, which present the only evidence in this regard, it does appear that Pieussergues may have employed a flange arrangement lacking the particular abutments depicted in Figure 5 of Pieussergues and recited in Appellant’s claim 1. However, absent any specific criticism or disparagement of the flange arrangement depicted in Pieussergues’s Figure 5 in particular, we cannot agree with Appellant that Pieussergues teaches away from such an arrangement, with or without

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Pieussergues's separator. Ans. 7 (citing MPEP § 2123(II) (citing, *inter alia*, *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004))). It is not mandatory to include the specific structure depicted in Figure 1 of Pieussergues in the Examiner's proposed combination because, as our reviewing court has acknowledged, "[i]t is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements." *In re Mouttet*, 686 F. 3d at 1332.

For the foregoing reasons, we sustain the Examiner's prior-art rejections.

CONCLUSION

The Examiner's rejections are AFFIRMED.

DECISION SUMMARY

Claim(s)	35 U.S.C. §	Basis/Reference(s)	Affirmed	Reversed
1-6, 9, 12, 13	112, 2nd	Indefinite	1-6, 9, 12, 13	
1-4, 9, 14, 20, 21	103(a)	Pieussergues, Porte	1-4, 9, 14, 20, 21	
12, 13	103(a)	Pieussergues, Porte, Hernandez	12, 13	
15	103(a)	Pieussergues, Porte, Coulon	15	
17	103(a)	Pieussergues, Porte, Mamas, Dizdarevic	17	
5, 6, 16, 18	103(a)	Pieussergues, Porte, Mamas	5, 6, 16, 18	
Overall Outcome			1-6, 9, 12-18, 20, 21	

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