



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/536,966	11/10/2014	Dhanunjay VEJALLA	83476444; 67186-134 PUS1	2111
46442	7590	09/08/2020	EXAMINER	
CARLSON, GASKEY & OLDS, P.C./Ford 400 W. MAPLE RD. SUITE 350 BIRMINGHAM, MI 48009			AYAD, TAMIR	
			ART UNIT	PAPER NUMBER
			1726	
			NOTIFICATION DATE	DELIVERY MODE
			09/08/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

cgolaw@yahoo.com
ptodocket@cgolaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DHANUNJAY VEJALLA, ADAM DENLINGER,
THOMAS ADLER, and PATRICK DANIEL MAGUIRE

Appeal 2019-006616
Application 14/536,966
Technology Center 1700

Before TERRY J. OWENS, BRIAN D. RANGE, and
MERRELL C. CASHION, JR., *Administrative Patent Judges*.

RANGE, *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 1–21 and 23–27. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ 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 Ford Global Technologies, LLC. Appeal Br. 2.

CLAIMED SUBJECT MATTER²

Appellant describes the invention as relating to a battery assembly having a battery array and an integrated heat exchanger. Spec. ¶ 1. Claims 1, 11, and 16 are the independent claims on appeal. Claims 1 and 11 are illustrative:

1. A battery assembly, comprising:
 - an array frame including a frame body and a slot formed through said frame body;
 - a thermal fin within said frame body; and
 - a heat exchanger plate positioned within said slot,wherein said heat exchanger plate is a separate component from said thermal fin and is contiguous with a portion of said thermal fin.

11. A battery assembly, comprising:
 - an array frame including at least one retention arm; and
 - a heat exchanger plate connected to said array frame by said at least one retention arm,wherein said heat exchanger plate is in direct contact with said at least one retention arm.

REFERENCES

The Examiner relies upon the prior art below in rejecting the claims on appeal:

² In this Decision, we refer to the Final Office Action dated October 22, 2018 (“Final Act.”), the Appeal Brief filed March 21, 2019 (“Appeal Br.”), the Examiner’s Answer dated July 8, 2019 (“Ans.”), and the Reply Brief filed September 6, 2019 (“Reply Br.”).

<u>Name</u>	<u>Reference</u>	<u>Date</u>
Maguire et al. ("Maguire")	US 7,604,896 B2	Oct. 20, 2009
Stoughton et al. ("Stoughton")	US 2012/0040221 A1	Feb. 16, 2012

REJECTIONS

The Examiner maintains the following rejections on appeal:

- A. Claims 1–10, 16–21, and 23–27 under 35 U.S.C. § 112 as failing to comply with the written description requirement. Ans. 4–7.
- B. Claims 1–10, 16–21, and 23–27 under 35 U.S.C. § 112 as indefinite. *Id.* at 4–6.
- C. Claims 1–9, 11–21, and 23–27 under 35 U.S.C. § 102 as anticipated by Stoughton. *Id.* at 7.
- D. Claim 10 under 35 U.S.C. § 103 as obvious over Stoughton in view of Maguire. *Id.* at 15.

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. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (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 considering the evidence presented in this Appeal and each of Appellant’s arguments, we are not persuaded that Appellant identifies reversible error except where we otherwise indicate below. Thus, where we affirm the Examiner’s rejections,

we do so for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.

Rejection B, indefiniteness. We first address indefiniteness because our written description, anticipation, and obviousness determinations require determining claim scope. During prosecution, “[a] claim is indefinite when it contains words or phrases whose meaning is unclear.” *Ex parte McAward*, Appeal 2015-006416, slip op. at 11 (quoting *In re Packard*, 751 F.3d 1307, 1314 (Fed. Cir. 2014) (per curium)).

The Examiner provides three distinct indefiniteness rationales. The Examiner first rejects claims 1–10, 21, 23, and 26–27 as indefinite based upon claim 1’s recitation “wherein said heat exchanger plate is a separate component from said thermal fin and is contiguous with a portion of said thermal fin” being unclear. Ans. 4; 20–21. The Examiner, in particular, determines that claim 1’s use of the term “contiguous” is unclear. *Id.* at 17–18; 20–21.

Appellant argues that claim 1’s recitation of “contiguous” is not unclear. Appeal Br. 4, 11–12; Reply Br. 1–3. Appellant argues that, in the Specification, the heat exchanger 25 is always described as being a separate component from the thermal fin but is also always “in contact (i.e., contiguous) with the leg 72 of the thermal fin 66.” Appeal Br. 12. Appellant argues that if contiguous does not require contact, the recitation of “contiguous” would be meaningless. *Id.* Appellant cites Webster’s Dictionary where the first definition of contiguous is “being in actual contact: touching along a boundary or at a point.” *Id.* at 7, 22 (Ex. A).

The Examiner determines that the recitation “contiguous” presents a semantic ambiguity because it can have more than one meaning and is not

precise. Ans. 17. We agree. In particular, parts can be contiguous if they are in actual contact—as Appellant urges. Appeal Br. 22 (Ex. A). Parts can also, however, be contiguous when “touching or connected throughout in an unbroken sequence” as reflected by the fourth Webster’s Dictionary definition. *Id.* (providing, as an example, a “contiguous row of houses”); *see also* Ans. 17; Examiner’s cited excerpt from Vocabulary.com (“Use the adjective contiguous when you want to describe one thing touching another thing, *or next to it but not actually touching*”).³

Of course, we do not construe claims in a vacuum or by only considering dictionaries and ordinary meaning. Rather, during prosecution, we construe patent claims based upon “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*, 127 F.3d 1048, 1054–55 (Fed. Cir. 1997); *see also* *Cuozzo Speed Tech., LLC v. Lee*, ___ U.S. ___, 136 S.Ct. 2131, 2145 (2016) (noting that the Patent Office has used the broadest reasonable construction standard for more than 100 years). Our reviewing Court has emphasized that “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Cf. Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc) (internal quotes and citation omitted).

³ People use the word “contiguous” in this sense when referring to the contiguous United States as meaning the forty-eight states in North America that are not separated by a body of water or another nation.

Here, the Specification sheds little light on claim 1's "contiguous" recitation because the Specification never uses the word contiguous. While we agree with Appellant that the Specification describes embodiments where, for example, contact is maintained between the heat exchanger and the thermal fin (Ans. 6 (citing Spec. ¶¶ 63, 67, 67)), Appellant does not direct us to any portion of the Specification that forbids an intermediary between the heat exchanger. Thus, the Specification does not weigh against construing contiguous as "touching or connected throughout in an unbroken sequence" (Appeal Br. 22) because the Specification does not forbid an unbroken sequence of, for example, heat exchanger, intermediary part, thermal fin. The Specification embodiments Appellant emphasizes fall within both the narrow and broader meanings of "contiguous." The embodiments do not, therefore, weigh in favor of only the more narrow meaning.

Appellant's argument that "contiguous" must mean touching based on the Specification's disclosed embodiments (Appeal Br. 6) invites this panel to read limitations from the Specification into the claims. Our reviewing court has often cautioned against such claim construction. *See, e.g., E-Pass Techs., Inc. v. 3Corn Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) ("The problem is to interpret claims 'in view of the specification' without unnecessarily importing limitations from the specification into the claims.").

Because contiguous is, in the context of claim 1, amenable to more than one plausible claim construction, it is unclear. *Cf. Ex parte Miyazaki*, 89 USPQ2d 1207, 1211 (BPAI 2008) (precedential) ("if a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the

claimed invention by holding the claim unpatentable under 35 U.S.C. § 112, second paragraph, as indefinite”). The Examiner’s rejection provides Appellant an opportunity to bring the necessary clarity to the claim language. *See Packard*, 751 F.3d at 1314 (affirming an indefiniteness rejection because Packard had been given the opportunity to bring clarity to his claim language stating that “[i]n some cases it is difficult enough for courts to construe claims when the draftsman has made every effort to be clear and concise, let alone when the claims have readily observable ambiguities or incoherencies within them.”). 35 U.S.C. § 112 “puts the burden of precise claim drafting squarely on the applicant.” *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997); *see also Halliburton Energy Servs. v. M-ILLC*, 514 F.3d 1244, 1255 (Fed. Cir. 2008) (noting that “the patent drafter is in the best position to resolve the ambiguity in the patent claims, and it is highly desirable that patent examiners demand that applicants do so in appropriate circumstances so that the patent can be amended during prosecution rather than attempting to resolve the ambiguity in litigation.”). We, therefore, sustain the Examiner’s rejection of claim 1 and claims depending from claim 1 as indefinite.

As a second indefiniteness position, the Examiner raises a substantially similar rejection with respect to claim 16. Ans. 6. Claim 16 recites “said lower cover is contiguous with at least two array frames,” and the Examiner determines that “it is not clear from the limitation whether direct contact is required.” Ans. 6, 19–20. Appellant again argues that “contiguous” requires direct contact. Appeal Br. 13–14. For the reasons explained above, we also sustain the Examiner’s rejection of claim 16 and claims depending from claim 16.

As a third position, the Examiner raises a second rationale for rejecting claim 1 as indefinite. The Examiner determines that claim 1 is unclear because it recites a “thermal fin within said frame body” but claim 5 recites “wherein said thermal fin includes a body and a leg that extends to a position outside of said frame body.” Ans. 5. Appellant argues that these recitations do not conflict because a thermal fin can be within said frame body while the leg of the frame also extends outside the frame body as illustrated by the Specification’s Figure 2B. Appeal Br. 13.

Appellant’s argument persuades us of error with regard to this third indefiniteness position. Claim 1 does not require that the thermal fin be *entirely* within said frame body. Figure 2B illustrates a scenario where both claim 1 and claim 5 can be satisfied: a portion of the fin is within the frame body and a portion of the fin (the leg) extends outside the frame body. We, therefore, do not sustain this separate basis for the Examiner’s indefiniteness rejection.

Although we sustained the Examiner’s indefiniteness rejection with respect to the term “contiguous” as recited in claims 1 and 16, we nonetheless address the Examiner’s other rejections of claims 1–10, 16–21, and 23–27 in the interest of efficiency. When addressing the Examiner’s other rejections below, we provisionally construe claims 1 and 16 based on the broader possible meaning of the word “contiguous.” *In re Morris*, 127 F.3d at 1054–55. In particular, we construe “contiguous” as meaning touching or connected throughout in an unbroken sequence where the connection can be via intermediate structure.

Rejection A, written description. The Examiner rejects claims 1–10, 16–21, and 23–27 as failing to satisfy the written description requirement of

35 U.S.C. § 112. Ans. 4–7. To determine whether the written description requirement is met, we consider whether disclosure of the earlier application relied upon “conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was in possession of the invention.” *In re Alton*, 76 F.3d 1168, 1172 (Fed. Cir. 1996).

The Examiner presents four distinct written description positions. The Examiner first determines that claim 1 and its dependent claims fail to comply with the written description requirement because the Specification describes the heat exchanger being in contact with the thermal fin but does not describe the heat exchanger being “contiguous” with the thermal fin. Ans. 4. As explained above, we provisionally construe “contiguous” as allowing also allowing indirect contact. Appellant’s argument against this rejection depends upon “contiguous” requiring direct contact. Appeal Br. 5–7. Appellant does not persuasively argue that a person of skill in the art would have understood, based on the Specification, that the inventor possessed a contiguous heat exchanger and thermal fin where the two parts are not in direct contact. As such, Appellant does not identify error in the Examiner’s position that the Specification does not adequately provide written description support for the full scope of claim 1. We, therefore, sustain the Examiner’s rejection.

Second, the Examiner also determines that claim 16 (and claims depending from claim 16) fails to comply with the written description requirement because the Specification demonstrates a lower cover connected to frames but does not describe the lower cover being contiguous with array frames. Ans. 5. Appellant’s argument against this rejection again depends upon “contiguous” requiring direct contact. Appeal Br. 9–10. Appellant does

not persuasively argue that a person of skill in the art would have understood, based on the Specification, that the inventor possessed a contiguous lower cover and at least two array frames where the contiguous parts are not in direct contact. As such, Appellant does not identify error in the Examiner's position that the Specification does not adequately provide written description support for the full scope of claim 16. We, therefore, sustain the Examiner's rejection.

Third, the Examiner similarly determines that claim 26 fails to comply with the written description requirement because the Specification does not teach a heat exchanger plate contiguous with said leg. Ans. 6–7. Appellant's argument again relies depends upon “contiguous” requiring direct contact. Ans. 10–11. We sustain this rejection because Appellant does not identify error in the Examiner's position that the Specification does not adequately provide written description support for the full scope of claim 26.

Fourth, claim 27 recites, in part, a “groove or passage extends along a first axis and said slot extends along a second axis that is transverse to said first axis.” Appeal Br. 20 (Claims App.). The Examiner determines that the Specification does not describe this recitation. Ans. 7. Appellant explains that Figures 2B and 5A–5C demonstrate the inventor's possession of this recitation. Appeal Br. 11. Based upon our review of these figures, we agree with Appellant's possession in this regard. We do not sustain the Examiner's rejection of claim 27 on this basis.

Rejection C, anticipation by Stoughton. The Examiner rejects claims 1–9, 11–21, and 23–27 under 35 U.S.C. § 102 as anticipated by Stoughton. Ans. 7. A reference anticipates a claim if it “disclose[s] each and every element of the claimed invention, whether it does so explicitly or

inherently.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (citation omitted). The elements “must be arranged or combined in the same way as in the claim.” *Id.* (internal quotes and citation omitted).

The Appellant presents separate arguments for independent claims 1, 11, and 16. We limit our discussion to those claims. All other claims stand or fall with the claim from which they depend. 37 C.F.R. § 41.37(c)(1)(iv) (2013).

With regard to claim 1, the Examiner finds that Stoughton teaches a battery assembly where, for example, the heat exchanger plate is a separate component from a thermal fin and is contiguous with a portion of the thermal fin. Ans. 7–8 (citing Stoughton).

Appellant argues that the alleged heat exchanger plate of Stoughton is only connected to the alleged thermal fin through an intermediate part and that “contiguous,” properly construed, requires direct contact. Appeal Br. 15. Because Appellant’s argument depends upon the narrow claim construction of “contiguous” that we reject above, Appellant’s argument does not identify error. We thus sustain the Examiner’s rejection of claim 1.

Claim 11 recites, in part, “[a] heat exchanger plate is in direct contact with said at least one retention arm.” Appeal Br. 19 (Claims App.). The Examiner finds, for example, that Stoughton teaches a heat exchanger plate in direct contact with at least one retention arm. Ans. 10 (citing Stoughton). In particular, the Examiner finds that Figure 1 of Stoughton illustrates heat exchanger plate 65 in direct contact with frame 25, and the Examiner equates 25 to the recited retention arm. *Id.*

Appellant argues that “no portion of the frame 25 can even arguably be [interpreted] as being a ‘retention arm.’” Appeal Br. 15; Reply Br. 5. We

disagree. As the Examiner explains, claim 16 does not require any particular shape for the recited “retention arm.” Ans. 23. As Stoughton Figure 1 illustrates, Stoughton’s frame 25 portions of the Stoughton apparatus retain other parts in place and, as such, may reasonably be viewed as retention arms of Stoughton’s frame. *Id.* Appellant does not present a persuasive argument to the contrary. We thus sustain the Examiner’s rejection of claim 11.

Our analysis of claim 16 is similar to that of claim 1. The Examiner finds that Stoughton teaches, for example, a lower cover contiguous with at least two array frames. Ans. 11 (citing Stoughton). Appellant argues that “contiguous” means direct contact and argues that Stoughton does not teach a lower cover contiguous with at least two frames of a battery pack. Again, because Appellant’s argument depends upon the narrow claim construction of “contiguous” that we reject above, Appellant’s argument does not identify error. We thus sustain the Examiner’s rejection of claim 16.

Rejection D, obviousness. The Examiner rejects claim 10 under 35 U.S.C. § 103 as obvious over Stoughton in view of Maguire. Ans. 15. Appellant argues claim 10 is patentable because claim 10 depends from claim 1 and because Stoughton fails to disclose the features of claim 1. Appeal Br. 16. As explained above, however, Appellant has not identified error in the Examiner’s rejection of claim 1 as anticipated by Stoughton. We, therefore, also sustain this rejection.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-10, 16-21, 23-27	112	Written description	1-10, 16-21, 23-27	
1-10, 16-21, 23-27	112	Indefiniteness	1-10, 16-21, 23-27	
1-9, 11-21, 23-27	102	Stoughton	1-9, 11-21, 23-27	
10	103	Stoughton, Maguire	10	
Overall Outcome			1-21, 23-27	

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