



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

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes application details for 14/721,160 and 23911 7590, listing inventor Andreas BUCHNER, attorney CROWELL & MORING LLP, examiner GRESO, AARON J, art unit 1722, and notification date 03/05/2020.

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):

- edocket@crowell.com
mloren@crowell.com
tche@crowell.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANDREAS BUCHNER, BAYERISCHE MOTOREN WERKE
AKTIENGESELLSCHAFT, MICHEAL BAUER, and STEFAN HAASE

Appeal 2019-000900
Application 14/721,160
Technology Center 1700

Before LINDA M. GAUDETTE, KAREN M. HASTINGS, and
JANE E. INGLESE, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

Appellant¹ seeks our review under 35 U.S.C. § 134(a) of the Examiner's Final Rejection of claims 1–13 under 35 U.S.C. § 103(a) as being unpatentable over at least the combined prior art of Lee (US 2004/0191606 A1, published Sept. 30, 2004) and Lisgaras (US

¹ We use the word “Appellant” to refer to the “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Bayerische Motoren Werke Aktiengesellschaft as the real party in interest (Appeal Br. 1).

2005/0142421 A1, published June 30, 2005).² An oral hearing was held on Feb. 26, 2020. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We REVERSE.

Claim 1 is illustrative of the claimed subject matter (emphasis added to highlight key disputed limitations):

1. A fuel cell having an anode-cathode stack, comprising:
at least one active surface layer formed by a first channel structure with a first and at least one second channel for conducting a first fluid over the active surface layer of the anode-cathode stack;

a first distributor structure configured to distribute the first fluid into the first and the at least one second channel of the first channel structure, wherein

the first distributor structure is configured with a first surface region upstream of an entrance of the first channel and a second surface region upstream of each entrance of each of the at least one second channel, and

the first and second surface regions are configured to have a different flow resistance for the first fluid distributed in the first distributor structure.

Independent claim 13 is directed to method which also requires a similar distributor structure for conducting fluid over an active surface layer

² Additional references, Gibb (US 2002/0064702 A1 published, May 30, 2002), Trabold (US 2009/0011310 A1, published Jan. 8, 2009), and Calstrom (US 2003/0224239 A1, published Dec. 4, 2003) were applied to claims 9–13 as listed in the Summary Table located at the end of this Decision. A discussion of these references is not needed for disposition of this appeal.

of a first channel structure with at least two channels of a fuel cell plate (Appeal Br. Claims Appendix 20, 21).

ANALYSIS

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *quoted with approval in KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

After review of the respective positions provided by Appellant and the Examiner, we conclude that the preponderance of the evidence supports Appellant’s position that the Examiner has not met the burden in this case for substantially the reasons set forth by Appellant in the Briefs.

Accordingly, we reverse the Examiner’s § 103 rejections of all the claims on appeal.

We add the following primarily for emphasis.

This appeal hinges on whether the claims encompass a distributor structure as described in Lisgaras in combination with a fuel cell plate as configured in Lee. Appellant contends that Lisgaras’s cooling plenums (distributor structure) guide fluid flow laterally through the gaps between fuel cell layers (Reply Br. 3) and do not guide a fluid flow into channels of an active surface layer. Appellant points out that Lisgaras explicitly describes that opening labeled 18 is the oxidant feed inlet which would feed fluid to the active surface layer, similar to the conduit inlet 34 feeding the

plate of Lee (Reply Br. 2, 3; Appeal Br. 7, 8; Lisgaras ¶¶ 100, 144; Lee Fig. 4).

While we appreciate the Examiner’s position that Lisgaras describes that the fluid may be a cathode gas (e.g., Ans. 19, Ligaras ¶ 22), this does not adequately address the Appellant’s position, especially in light of Lisgaras’ explicit description of the depicted oxidant inlet 18. Appellant contends that “one of ordinary skill would not misinterpret the Lisgaras drawings [pertaining to distributors 33] as teaching reactant fluid distribution to active surfaces of the fuel cell stacks 11, 12” (Reply Br. 4).

“[D]uring examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.” *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1256 (Fed. Cir. 2007) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)).

As stated in *In re Smith*,

The correct inquiry in giving a claim term its broadest reasonable interpretation in light of the specification is not whether the specification proscribes or precludes some broad reading of the claim term adopted by the examiner. And it is not simply an interpretation that is not inconsistent with the specification. It is an interpretation that corresponds with what and how the inventor describes his invention in the specification, *i.e.*, an interpretation that is “consistent with the specification.”

In re Smith Int’l, Inc., 871 F.3d 1375, 1382–83 (Fed. Cir. 2017) (quoting *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997)). *Cf. Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (“[T]he 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.’” (internal citation omitted)).

On this record, we agree with Appellant that the broadest reasonable interpretation of the claim language consistent with the Specification does not encompass Lisgaras's distributors 33 (in combination with a fuel plate channel structure as taught in Lee) as proposed by the Examiner. As pointed out by Appellant, the claim language requires that the distributor is configured with different flow resistance regions corresponding to first and second channels of an active surface layer which are part of the same first channel structure (Appeal Br. 17; Reply Br. 6-8). The Examiner has not adequately explained how the applied prior art of Lisgaras and Lee teaches or suggests the claimed distribution system in combination with active surface channels for reasons presented by Appellant.

A preponderance of the evidence also supports Appellant's position that the proposed combination of Lisgaras/Lee to result in the claimed structure (or corresponding method of claim 13) would be based on improper hindsight reconstruction for the reasons discussed by Appellant in the Briefs. The fact finder must be aware "of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *KSR*, 550 U.S. at 421 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966) (warning against a "temptation to read into the prior art the teachings of the invention in issue"))).

Accordingly, we reverse the rejections of claims 1–13.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-9	103	Lee, Lisgaras		1-9
9, 13	103	Lee, Lisgaras, Gibb		9, 13
10, 11	103	Lee, Lisgaras, Gibb, Trabold		10, 11
12	103	Lee, Lisgaras, Gibb, Trabold, Calstrom		12
Overall Outcome				1-13

REVERSED