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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GRAEME R. MITCHELL, MARTIN WILLIAMSON,
JOHN CHAPPLES and FRANS MONSEES

Appeal 2019-000465
Application 13/071,893
Technology Center 1700

Before LINDA M. GAUDETTE, KAREN M. HASTINGS, and
N. WHITNEY WILSON, *Administrative Patent Judges*.

WILSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134 from the Examiner's November 2, 2017 decision finally rejecting claims 1–20. We have jurisdiction over the appeal 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 Life Safety Distribution AG as the real party in interest (Appeal Br. 3).

CLAIMED SUBJECT MATTER

Appellant's invention is directed to a gas detector for the electro-chemical sensing of gas via at least two electrodes, which are formed on opposing surfaces of a common substrate (Abstract). Independent claim 1 is representative, and is reproduced below from the Claims Appendix of the Appeal Brief (emphasis added):

1. A gas detector comprising:
a gas sensor comprising a working electrode, a bipolar electrode, a common substrate comprising a first surface and a second surface, and a separator disposed between the working electrode and the bipolar electrode, wherein the bipolar electrode comprises *a counter electrode catalyst pad disposed on and mechanically adhered to the first surface and a reference electrode catalyst pad disposed on and mechanically adhered to the second surface*, wherein the first surface is on an opposite side of the common substrate from the second surface; wherein the common substrate is disposed between the counter electrode catalyst pad and the reference electrode catalyst pad; wherein the common substrate is in contact with the counter electrode catalyst pad and the reference electrode catalyst pad;
a housing which carries the gas sensor; and
control circuits coupled to an alarm output.

REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Saffell² in view of Warburton.³ Appellant does not argue any claim

² Saffell et al., GB 2 371 873 A, published Aug. 7, 2002.

³ Warburton, US 6,165,347, issued December 26, 2000.

meet the claim requirement that the catalyst pads be “mechanically adhered to” the substrate (Final Act. 3). The Examiner further determines that the limitation “mechanically adhered to” is a product-by-process limitation and, therefore, is governed by the rules relating to product-by-process claims, meaning that because “SAFFELL et al teaches a stack of counter and reference electrode catalysts pressed and in contact with opposing sides of a common substrate . . . [t]he structure of the instant claim is present in SAFFELL et al and it is upon said structure that patentability is determined” (Final Act. 4). The Examiner also determines that:

based on the teachings of SAFFELL et al, it would have been obvious to one of ordinary skill to obtain catalyst pads which are mechanically adhered and disposed on the common substrate by stacking the layers so as to provide a stack which provides the most effective communication between layers.

(*id.*). The Examiner further finds that Saffell is silent with respect to the output of the sensor being connected to an alarm, but that this element would have been obvious in view of the teachings of Warburton (*id.*, citing Warburton 9:52–61).

Appellant argues that the combination of Saffell’s separator disc 42 and the adjacent catalyst layers 52 and 62 do not constitute a bipolar electrode comprising catalyst pads disposed on and mechanically adhered to opposing sides of a common substrate (Appeal Br. 14).

First, Appellant argues that Saffell’s separator disc 42 cannot correspond to the claimed “common substrate” because the term “substrate” as used in the claims, refers to a component of an electrode to which one or more catalyst pads are fixed (Appeal Br. 16–17, citing Spec. ¶¶ 15, 18–19, 25, 27). Because, according to Appellant, no catalyst pad is affixed to

Saffell's separator disc 42, separator disc 42 cannot correspond to the claimed common substrate.

This argument is not persuasive.

The Examiner suggests that the term substrate should be construed consistently with the "broadest reasonable interpretation of the art" (Ans. 10). This is an inaccurate statement of how claim terms should be construed during prosecution as it is well established that "the PTO must give claims their *broadest reasonable construction consistent with the specification* Therefore, we look to the specification to see if it provides a definition for claim terms, but otherwise apply a broad interpretation." *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007) (emphasis added). Idiosyncratic language, highly technical terms, or terms coined by the inventor are best understood by reference to the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315–16 (Fed. Cir. 2005) (en banc).

The Examiner's error in setting forth the legal standard for claim construction, however, is harmless. While the inventor may define specific terms used to describe his invention, he or she must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "'set out his uncommon definition in some manner within the patent disclosure' so as to give one of ordinary skill in the art notice of the change" in meaning. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387–88 (Fed. Cir. 1992)).

In this instance, none of the portions of the Specification relied on by Appellant provide a specific definition which would limit the term "substrate" to a situation where the catalyst pad is "fixed," as urged by Appellant (Appeal Br. 16). In fact, none of the portions use or suggest the

term “fixed.” Instead, the extrinsic definition of “substrate” put forward by Appellant (Appeal Br. 17, quoting Oxford Dictionary Online: “a material which provides the surface on which something is deposited or inscribed”) is completely consistent with the broadest reasonable interpretation of “substrate” relied on by the Examiner.

Accordingly, we determine that Appellant has not demonstrated reversible error in the Examiner’s finding that Saffell’s separator disc 42 corresponds with the claimed common substrate.

Appellant also argues that Saffell does not disclose that the catalyst pads are “disposed on and mechanically adhered to” the common substrate (Appeal Br. 17–18). Appellant contends that the Examiner finds that the mere proximity between Saffell’s catalyst pads 52 and 62 and the separator disc is sufficient to meet the claim limitation “mechanically adhered to” (*id.*). However, the Examiner makes clear that his finding that Saffell’s components are mechanically adhered to each other is based on the compression of the layers into each other (Final Act. 3). That is, the pressure pushing the layers together is sufficient to satisfy the “mechanically adhered to” requirement.

Appellant also contested (Appeal Br. 19–20) the Examiner’s determination that even if the compression taught by Saffell was not sufficient to meet the “mechanically adhered to” requirement, it would have been obvious to mechanically adhere the layers to each other to provide the most effective communication between the layers (Final Act. 4). However, as discussed above, we determine that Saffell discloses the “mechanically adhered to” limitation. Therefore, we need not reach Appellant’s argument.

Thus, Appellant has not demonstrated reversible error in the Examiner's determination that the "mechanically adhered to" limitation would have been obvious in view of Saffell's disclosure.⁴

In view of the foregoing, we determine that Appellant has not demonstrated reversible error in the rejection on appeal. Therefore, we affirm the rejection of claims 1–20.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	References(s)/Basis	Affirmed	Reversed
1–20	103(a)	Saffell, Warburton	1–20	
Overall Outcome			1–20	

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

⁴ Appellant also argues that the Examiner erred in determining that the "disposed on and mechanically adhered to" limitation is a product-by-process limitation and entitled to no patentable weight (Appeal Br. 18). We need not determine whether the Examiner's interpretation was erroneous, because the Examiner found that these limitations were taught or suggested by Saffell.