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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN EASTMAN¹

Appeal 2015-004591
Application 13/426,831
Technology Center 1700

Before CHUNG K. PAK, JEFFREY T. SMITH, and
WESLEY B. DERRICK, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from a final rejection² of claims 1 through 8. We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

Appellant's invention is generally directed to a fiber optic analytesensing needle. App. Br. 4. Claim 1 illustrates the subject matter on appeal and is reproduced below:

1. A fiber optic analyte sensing needle, comprising:

¹ According to Appellant, the real party in interest is Mocon, Inc. App. Br.

2.

² Final Office Action entered May 16, 2014 ("Final Act.").

- (a) a hollow distal tipped needle having a longitudinal lumen with at least one lateral side port proximate the distal tip,
- (b) at least one fiber optic filament having a distal end portion sealingly jacketed with the lumen, and
- (c) a photoluminescent analyte-sensitive probe nonadherently entrapped within the lumen between a distal tip of the at least one fiber optic filament and the distal tip of the needle,
- (d) wherein the probe has unimpeded fluid communication with an external environment through the at least one lateral side port in the needle.

Appellant (*see generally* App. Br.) requests review of the following rejections maintained by the Examiner in the Answer entered January 14, 2015 (“Ans.”):

I. Claims 1, 2, and 4–8 under 35 U.S.C. § 102(b) as anticipated by Obeid et al., (US 2009/0075321 A1, published March 19, 2009) (hereinafter “Obeid”).

II. Claim 3 under 35 U.S.C. § 103(a) as unpatentable over Obeid.

OPINION

After review of the respective positions provided by Appellant and the Examiner, we AFFIRM the Examiner’s rejection of claims 1, 2, and 4–8 under 35 U.S.C. § 102(b), and rejection of claim 3 under 35 U.S.C. § 103(a). We add the following for emphasis.

To prevail in an appeal to this Board, an Appellant must adequately explain or identify reversible error in the Examiner’s rejections. *See* 37 C.F.R. § 41.37(c) (1) (iv) (2012); *see also In re Jung*, 637 F.3d 1356, 1365–66 (Fed. Cir. 2011) (explaining that even if the examiner had failed to make a prima facie case, it has long been the Board’s practice to require an

appellant to identify the alleged error in the examiner's rejections); *In re Chapman*, 595 F.3d 1330, 1338 (Fed. Cir. 2010), quoting *Shinseki v. Sanders*, 556 U.S. 396, 409 (2009) (“the burden of showing that the error is harmful normally falls upon the party attacking the agency’s determination.”).

Rejection I³

The dispositive issue on appeal for this rejection is whether Appellant identifies reversible error in the Examiner’s finding that Obeid discloses a fiber optic, analyte-sensing needle that comprises a photoluminescent analyte-sensitive probe having unimpeded fluid communication with an external environment. On this record, we answer this question in the negative.

Appellant argues that Obeid does not disclose a probe having unimpeded fluid communication with an external environment because Obeid’s probe is encapsulated within an analyte-permeable encapsulating material, and the target analyte must diffuse through the encapsulating material before the probe can take a reading. App. Br. 6. Appellant further argues that the Examiner errs in considering Obeid’s encapsulating material to be part of Obeid’s probe because Obeid teaches that the encapsulating material and the probe are separate and distinct components having separate and distinct functions. App. Br. 6–7. In support of this argument, Appellant relies on the Declaration of Dmitri Papkovsky submitted to the Patent Office

³ Appellant argues claims 1, 2, and 4–8 together. App. Br. 5–7. Therefore, we select claim 1 as representative, and claims 2 and 4–8 will stand or fall with claim 1.

on January 9, 2014 (“the Papkovsky Declaration”). According to the Papkovsky Declaration, one of ordinary skill in the art would not consider the encapsulating material disclosed in Obeid to be a constituent of the photoluminescent, analyte-sensitive probe because the encapsulating material functions to prevent fouling of the probe, while the probe functions to sense analyte concentration. Papkovsky Dec. ¶¶ 10–11.

However, we agree with the Examiner that Obeid discloses a probe having unimpeded fluid communication with an external environment, as recited in claim 1. Final Act. 2–3; Ans. 5. Obeid discloses a sensor for measuring the concentration of a substance (analyte) comprising an optical fiber ²⁴ consisting of a glass fiber 3 positioned within a cylindrical cavity 15 of a needle tube 13. Obeid ¶¶ 53, 57; Fig. 1. Obeid discloses that the end 7 of the glass fiber 3 has a tip 8 on which a luminescent sensor material 9 is layered. Obeid ¶ 53. Obeid further discloses that a polymer material 16 fills the cylindrical cavity 15 within the needle tube 13 and completely surrounds and encapsulates the sensor layer 9. Obeid ¶ 57. Obeid discloses that the polymer encapsulating material 16 is gas permeable, and for oxygen sensing applications, is a highly permeable, polymer-type compound. Obeid ¶ 61. Obeid discloses that the needle tube 13 contains elongate lateral apertures 18 that communicate the interior of the cavity 15, filled with encapsulating material 16, with the exterior of the sensor. Obeid ¶ 59.

We find no definition or limiting description in Appellant’s Specification of “unimpeded fluid communication” between a probe and an external environment to exclude the type of the unimpeded fluid

⁴ Reference numerals refer to Figure 1 of Obeid.

communication function of Obeid's probe. Nor do we find a definition or description in Appellant's Specification of a "probe" that would exclude a combination of Obeid's sensor layer 9 and encapsulating material 16. In fact, as the Examiner correctly finds (Ans. 5), Appellant's Specification indicates that the probe includes a carrier substrate coated with an analyte-sensitive photoluminescent dye that is typically embedded within an analyte-permeable polymer matrix. Spec. ¶¶ 16, 19.

Accordingly, due to the absence of a limiting definition of a "probe" in Appellant's Specification, we agree with the Examiner that Obeid's disclosure of a layer of luminescent sensor material 9 encapsulated within a permeable polymeric material 16 corresponds to a photoluminescent analyte-sensitive probe as recited in claim 1 that has unimpeded fluid communication with an external environment via the elongate lateral apertures 18 in the needle tube 13. In other words, due to the highly gas-permeable nature of Obeid's polymeric encapsulating material 16, "unimpeded fluid communication" occurs between the luminescent sensor material 9 and a test analyte in an external environment via the lateral apertures 18 in the needle tube 13, as recited in claim 1.

Although the Papkovsky Declaration states that Obeid's probe is separate and distinct from Obeid's encapsulating material because they have different functions (Papkovsky ¶¶ 10–11), the Declaration provides nothing beyond an unsupported opinion that Obeid's probe is distinct from the encapsulating material. The Declaration offers no evidence establishing that the combination of Obeid's luminescent sensor material and encapsulating material is different from Appellant's probe, particularly in view of the description in Appellant's Specification indicating that Appellant's probe

includes a photoluminescent dye embedded in a polymer matrix. Accordingly, the Papkovsky Declaration does not establish that Obeid fails to disclose a probe having unimpeded fluid communication with an external environment. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”); *Velandar v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) (“In giving more weight to prior publications than to subsequent conclusory statements by experts, the Board acted well within [its] discretion.”); *Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (The Board has discretion to give more weight to one item of evidence over another “unless no reasonable trier of fact could have done so”).

Thus, on this record, Appellant does not identify reversible error in the Examiner’s finding that Obeid discloses a fiber optic, analyte-sensing needle having the features recited in claim 1. We accordingly sustain the Examiner’s rejection of claims 1, 2, and 4–8 under 35 U.S.C. § 102(b) as anticipated by Obeid.

Rejection II

Appellant relies on the contentions discussed above that the Examiner errs in rejecting the base claim, independent claim 1, from which claim 3 depends, and argues that claim 3 is patentable over Obeid for the same reasons set forth in connection with claim 1. App. Br. 7. Because we are unpersuaded of reversible error in the Examiner’s rejection of claim 1 as anticipated by Obeid, Appellant’s position as to this ground of rejection is also without merit. Accordingly, we sustain the rejection of claim 3 under 35 U.S.C. § 103(a) as unpatentable over Obeid.

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ORDER

For the reasons set forth above and in the Answer, the decision of the Examiner is affirmed.

TIME PERIOD

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

AFFIRMED