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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS FUCHS

Appeal 2018-001689
Application 13/060,818
Technology Center 1700

Before GEORGE C. BEST, DONNA M. PRAISS, and
JENNIFER R. GUPTA, *Administrative Patent Judges*.

GUPTA, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner's final decision rejecting claims 1, 3–9, 17–21, 26, and 27.³ We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

¹ In this Decision, we refer to the Specification filed February 25, 2011 (“Spec.”), the Final Office Action dated December 30, 2016 (“Final Act.”), the Appeal Brief filed May 26, 2017 (“Appeal Br.”), the Examiner’s Answer dated October 6, 2017 (“Ans.”), and the Reply Brief filed December 5, 2017 (“Reply Br.”).

² Appellant identifies the real party in interest as Center for Abrasives and Refractories Research & Development C.A.R.R.D. GmbH. Appeal Br. 1.

³ Claims 10–14, 22, and 23 are withdrawn from consideration by the Examiner as directed to a non-elected invention. Claim 16 was cancelled in an amendment filed April 12, 2017. See Appeal Br. 5, 24 (Claims App.).

The claims are directed to solid particles, such as corundum, melted corundum, sintered corundum, zirconium corundum, silicon carbide, boron carbide, cubic boron nitride, diamond and/or mixtures thereof that have a coating that includes a polyol applied thereto. Spec. 1, 4.

Claim 1, reproduced below from the Claims Appendix of the Appeal Brief, is illustrative of the claims on appeal.

1. Solid particles with improved processability in an electrostatic field, the solid particles being selected from the group consisting of corundum, melted corundum, sintered corundum, zirconium corundum, silicon carbide, boron carbide, cubic boron nitride, diamond, and mixtures thereof, which have a surface treatment in the form of a coating, characterized in that the coating comprises at least one polyol,

wherein the amount of polyol is 0.01 to 0.4% by weight relative to the untreated solid particles; and

wherein the dust index of the solid particles is less than 1.

Appeal Br. 22 (Claims App.).

REJECTIONS

The Examiner maintains the following rejections under pre-AIA 35 U.S.C. § 103(a) on appeal (Final Act. 3–6; Ans. 2):⁴

Rejection 1: Claims 1, 3, 4, 16, 26, and 27 over Starling (US 2008/0172951 A1, published July 24, 2008) (“Starling”);

Rejection 2: Claims 5, 6, 17, and 18 over Starling in view of Masin (US 1,951,555, issued March 20, 1934); and

⁴ The Examiner’s rejection of claim 16 and the proposed objection of claim 16, should claim 4 be found allowable, are moot given that claim 16 was canceled in an amendment filed April 12, 2017.

Rejection 3: Claims 7–9 and 19–21 over Starling in view of Seth et al. (US 8,021,449 B2, issued September 20, 2011) (“Seth”).

DISCUSSION

After review of the cited evidence in light of the Appellant’s and the Examiner’s opposing positions, we determine that Appellant has not identified reversible error in the Examiner’s rejections. Accordingly, we affirm the rejections for the reasons set forth below, in the Final Office Action, and in the Examiner’s Answer.

Appellant’s arguments focus on independent claim 1. Appellant’s arguments presented for claims 3–9, 17–21, 26, and 27 are essentially the same as the arguments presented for claim 1. *Compare* Appeal Br. 18–20, *with* Appeal Br. 10–18. Therefore, we limit our discussion to independent claim 1, and dependent claims 3–9, 17–21, 26, and 27 will stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds that Starling discloses a coated abrasive product coated with a plasticizer, such as a polyol, as recited in claim 1. Final Act. 3. According to Starling, its coated abrasive product is formed by forming a slurry containing a particulate material, such as silicon carbide, a liquid carrier, such as water, and a plasticizer, such as a polyol, in an amount ranging from about 0.5 weight percent to about 5.0 weight percent, mixed together followed by spray drying to form aggregates containing the abrasive grit particles. *Id.*; Starling ¶¶ 8, 12, 22, and 37–39. The Examiner acknowledges that Starling fails to disclose the identical ranges of polyol recited in Appellant’s claim 1, but determines that Starling’s description of the polyol content ranging from about 0.5 weight percent to about 5.0 weight

percent is sufficiently “close” to the claimed polyol content to render the claimed invention prima facie obvious. Final Act. 3. In support of this position, the Examiner relies on MPEP § 2144.05 for the proposition that the ranges are so close that one skilled in the art would have expected them to have the same properties. *Id.*

Although the Examiner also acknowledges that Starling does not disclose that its coated abrasive particles have a dust index of less than 1, the Examiner takes the position that the claimed dust index naturally flows from using Starling’s coated abrasive product because Starling’s product has a substantially similar structure and chemical composition as the claimed invention. *Id.*

Appellant argues that Starling fails to teach or suggest an “amount of polyol [that] is 0.01 to 0.4% by weight relative to the untreated solid particles,” as required by the pending claims. Appeal Br. 13–16. Appellant argues that the Examiner’s determination that because the range of polyol disclosed by Starling is “close” to the claimed range it would have been prima facie obvious is inconsistent with the Federal Circuit’s decision in *In re Patel*, 566 F. App’x 1005, 1010 (Fed. Cir. 2014). Appeal Br. 14.

Appellant’s arguments are not persuasive of reversible error. In *Patel*, the Federal Circuit considered whether a claim limitation requiring between 26 and 80 weight percent of a first polymer was rendered prima facie obvious by a prior art disclosure of 0.5 to 25 weight percent of that polymer. *Id.* at 1007. The Federal Circuit stated that “a rejection based on ranges approaching each other might well be appropriate where there is a teaching in the prior art that the endpoints of the prior art range are approximate or can be flexibly applied.” *Id.* at 1010. Moreover, despite Appellant’s

argument, the Federal Circuit teaches in *Brandt* that the “nonbinding holding in *Patel* . . . does not stand for the proposition advanced by Appellants that a claimed range and prior art range must overlap for an examiner to find a prima facie case.” *In re Brandt*, 886 F.3d 1171, 1177 (Fed. Cir. 2018).

Here, the Examiner finds that Starling discloses that the amount of polyol in its mixture ranges from *about* 0.5 weight percent to about 5.0 weight percent. Final Act. 3 (citing Starling ¶¶ 38–39). As the Examiner explains, the use of the term “about” suggests some flexibility in the amount of polyol disclosed by Starling. Ans. 3. Thus, based on Starling’s disclosure, one of ordinary skill in the art would have had a reason to use an amount of polyol less than 0.5%. Appellant does not direct us to any disclosure in Starling about limiting the polyol to amounts ranging from 0.5 weight percent to 5.0 weight percent. Nor does Appellant direct us to sufficient evidence to rebut the Examiner’s finding that even if the ranges in Starling and claim 1 do not overlap, the ranges are close enough such that one skilled in the art would have expected them to have the same properties. *See* Final Act. 3; *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985). In fact, Appellant’s Specification teaches that solid particles coated with an amount of polyol ranging from 0.001 to 5% by weight, relative to the untreated solid particles, would be expected to have the same properties, i.e., improved processability in an electrostatic field. Spec. 4, ¶ 3.

Appellant argues that the Examiner has failed to show that “solid particles with improved processability in an electrostatic field” would have been obvious over Starling. Appeal Br. 10–13. Similarly, Appellant argues

that the Examiner has not shown that the claimed dust index will necessarily result from Starling's aggregate. Appeal Br. 16–18.

Appellant's arguments are not persuasive of reversible error. It is well-settled that inherency cannot be established by mere probabilities or possibilities. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). But “[w]here . . . the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product.” *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977). Based on this record, the Examiner provided an adequate factual basis upon which to shift the burden to the Appellant to come forward with evidence to show Starling's coated abrasive product would not necessarily have improved processability in an electrostatic field or have a dust index of less than 1, as required by claim 1. Indeed, as discussed above, Appellant's Specification teaches that solid particles coated with an amount of polyol ranging from 0.001 percent by weight to 5 percent by weight, relative to the untreated solid particles (e.g., Starlings' abrasive product coated with from about 0.5 weight percent to about 5 weight percent polyol) would be expected to have the same properties, i.e., improved processability in an electrostatic field. *See In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (“[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.”). Appellant, however, does not provide such a showing.

In view of the foregoing, we sustain the rejections of claims 1, 3–14, 17–23, 26, and 27.

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DECISION

The rejections of claims 1, 3–14, 17–23, 26, and 27 are affirmed.

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

AFFIRMED