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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL PAUL ROWE

Appeal 2019-000923
Application 13/921,878
Technology Center 1700

Before BEVERLY A. FRANKLIN, JAMES C. HOUSEL, and
MONTÉ T. SQUIRE, *Administrative Patent Judges*.

SQUIRE, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 2, 3, 7–12, and 15–17.³ We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held on June 11, 2020.⁴

¹ This Decision refers to the Specification filed June 19, 2013 (“Spec.”); Final Office Action dated Feb. 23, 2018 (“Final Act.”); Appeal Brief filed July 23, 2018 (“Appeal Br.”); Examiner’s Answer dated Sept. 14, 2018 (“Ans.”); and Reply Brief filed Nov. 14, 2018 (“Reply Brief”).

² We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies is Toyota Motor Engineering & Manufacturing NA, as the real party in interest. Appeal Br. 1.

³ Claims 1, 4–6, 18, and 19 are cancelled and claims 13 and 14 are withdrawn. Appeal Br. 15, 17, 18.

⁴ A written transcript of the oral hearing will be entered into the record when the transcript is made available.

We AFFIRM.

CLAIMED SUBJECT MATTER

The invention relates to superparamagnetic core shell nanoparticles having an iron cobalt ternary alloy core and a silica shell, and a magnetic core produced with these nanoparticles. Spec. 1:10–13; Abstract. Independent claim 7 illustrates the subject matter on appeal and is reproduced below from the Claims Appendix to the Appeal Brief:

7. A magnetic core, comprising:
 - superparamagnetic grains of an iron cobalt ternary alloy; and
 - a matrix of silicon dioxide;
 - wherein
 - a diameter of the iron cobalt ternary alloy grain is from 3 to 35 nm,
 - the third component of the ternary alloy is a transition metal selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, nickel, copper and zinc,
 - the magnetic core is superparamagnetic, and
 - the magnetic core is a monolithic structure having a length dimension and a thickness dimension greater than 1 mm*** obtained by a process comprising:
 - wet chemical precipitation of the iron cobalt alloy grain;
 - coating of the grain with a silicon dioxide shell to obtain a thermally untreated core shell nanoparticle having a magnetic saturation (M_s); and
 - thermal annealing of the untreated core shell nanoparticle to obtain the thermally annealed

superparamagnetic core shell nanoparticle having a magnetic saturation (TAM_s);

wherein TAM_s is equal to or greater than $1.25M_s$ and

sintering the thermally annealed core shell nanoparticles under pressure to form the monolithic structure of thermally annealed superparamagnetic core grains of an iron cobalt ternary alloy directly bonded by the silicon dioxide shells, which form a matrix.

Appeal Br. 15–16 (key disputed claim language italicized and bolded).

REJECTION

On appeal, the Examiner maintains (Ans. 3) the following rejection:

Claims 2, 3, 7–12, and 15–17 are rejected under 35 U.S.C. § 112(a) or pre-AIA 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Ans. 3–4.

OPINION

Having considered the respective positions the Examiner and Appellant advance in light of this appeal record, we affirm the Examiner's rejection based on the fact-finding and reasoning set forth in the Answer and Final Office Action, which we adopt as our own. We add the following primarily for emphasis.

The Examiner rejects claims 2, 3, 7–12, and 15–17 under 35 U.S.C. § 112 for lack of written description. Ans. 3–4. In response to the Examiner's rejection, Appellant presents argument for the patentability of claims 2, 3, 7–12 and 17 as a group and claims 15 and 16 as a group. Appeal Br. 4, 13. However, Appellant's argument for the patentability of claims 15 and 16 are substantially the same as raised for the patentability of

claim 7. Therefore, we select claim 7 as representative and claims 2, 3, 8–12, and 15–17 stand or fall with claim 7. 37 C.F.R. § 41.37(c)(1)(iv).

The test for compliance with the written description requirement is “whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

The Examiner determines that adequate written descriptive support is not provided in the originally-filed Specification for “a monolithic structure having a length dimension and a thickness dimension greater than 1 mm” recitation of claim 7. Ans. 3–4. The Examiner finds that although the Specification discloses “discs were produced that were 9 mm in diameter and 2.5 mm thick” (Spec. 15:2–4), without more, such disclosure does not reasonably convey to one skilled in the art that the inventor had possession of the claimed subject matter at the time the application was filed. *Id.* at 3–5; *see also id.* at 7 (explaining “with the exception of one example (example 9) that discloses one specific diameter and one specific thickness, it cannot be concluded that appellant is in possession of the claimed monolithic structure having any length and any thickness of greater than 1 mm”).

Appellant argues the Examiner’s rejection of claim 7 should be reversed because the originally-filed Specification provides written description that fully supports the claimed subject matter, including each element recited in the claim. *See* Appeal Br. 4–13; Reply Br. 4 (“[I]t is clear that the specification as originally filed does notify one of ordinary skill in

the art of all the elements now claimed and therefore, the requirement under 35 U.S.C. 112, first paragraph is fulfilled.”).

Appellant contends

an artisan of magnetic core technology readily recognizes that the subject matter and elements of Claim 7 as now recited are fully supported by the description of the specification as originally filed.

Appeal Br. 11; Reply Br. 3 (same). In particular, based principally on the disclosures at pages 1 and 13–15 of the Specification (*see* Spec. 1:13–17, 1:25–29, 13:13–28, 13:20–31, 13:33–14:3, 14:32–15:6), Appellant contends one of ordinary skill would have recognized Appellant was in possession of a magnetic core structure, which adequately supports the “monolithic structure having a length dimension and a thickness dimension greater than 1 mm” element of the claim. Appeal Br. 7 (arguing “that one of ordinary skill, based on the descriptions provided above recognizes that the toroid obtained in the example was obtained from a monolithic structure disc which was machined to a toroid structure”).

Relying on the Declaration under 37 C.F.R. § 1.132 of Inventor, Dr. Michael Paul Rowe filed Dec. 29, 2017 (“Rowe Decl.”), Appellant further contends

it is entirely obvious and common knowledge to anyone of ordinary skill in the art that these electronic devices are typically a few millimeters to several inches in size, with large examples of the technology measuring several feet in diameter.

Id. at 9 (quoting Rowe Decl. 2); *see also* Reply Br. 3 (same).

We do not find Appellant’s arguments persuasive of reversible error in the Examiner’s rejection based on the fact-finding and for the reasons the

Examiner provides at pages 3–8 of the Answer and pages 2–4 of the Final Office Action, which a preponderance of the evidence supports.

Rather, on the record before us, we determine that the “monolithic structure having a length dimension and a thickness dimension greater than 1 mm” recitation of claim 7 is not adequately supported by the originally-filed Specification. We have reviewed the portions of the Specification Appellant relies upon, but find that the written description does not adequately describe and is not commensurate in scope with that element of the claim. In particular, as the Examiner finds and explains (Ans. 3–5), although page 15 of the Specification describes an example of a structure having a diameter of 9 mm and a thickness of 2.5 mm (Spec. 15:1–4), we do not find that disclosure, without more, sufficient to reasonably convey to one of ordinary skill in the art that the inventor had possession of a magnetic core structure encompassing a monolithic structure having a length dimension and a thickness dimension greater than 1 mm, as claimed. Likewise, none of the other portions of the originally-filed Specification Appellant cites and relies upon provide adequate written descriptive support for that element of the claim. *See, e.g.*, Spec. 1:13–17, 1:25–29, 13:13–28, 13:20–31, 13:33–14:3, 14:32–15:6.

We do not find the Rowe Declaration and Appellant’s arguments regarding the Rowe Declaration (Appeal Br. 9; Reply Br. 3) persuasive because that fact that it may have been “entirely obvious” and “common knowledge” to one of ordinary skill that devices, such as the device of claim 7, are typically a few millimeters to several inches in size, without more, does not establish reversible error in the Examiner’s rejection. Contrary to what Appellant’s argument seems to suggest, as discussed above, the test for

compliance with the written description requirement is not whether the claimed subject matter would have been obvious to one of ordinary skill, but whether the disclosure of the application relied upon reasonably conveys to one of ordinary skill in the art that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharm.*, 598 F.3d at 1351. Indeed, it is well-settled

[t]he question is not whether a claimed invention is an obvious variant of that which is disclosed in the specification. Rather, a prior application itself must describe an invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.

Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572 (Fed. Cir. 1997) (citations omitted).

Accordingly, we affirm the Examiner's rejection of claims 2, 3, 7–12, and 15–17 under 35 U.S.C. § 112(a) or pre-AIA 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

CONCLUSION

In summary:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
2, 3, 7–12, 15–17	112	written description	2, 3, 7–12, 15–17	

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)(iv).

AFFIRMED