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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RED DIAMOND, INC., Petitioner,

v.

SOUTHERN VISIONS, LLP, Patent Owner.

> PGR2019-00045 Patent 10,071,852 B2

Before CHRISTOPHER L. CRUMBLEY, JEFFREY W. ABRAHAM, and CHRISTOPHER C. KENNEDY, *Administrative Patent Judges*.

KENNEDY, Administrative Patent Judge.

JUDGMENT Final Written Decision Granting In Part Patent Owner's Revised Motion to Amend 35 U.S.C. § 328(a)

I. BACKGROUND

Petitioner, Red Diamond, Inc., filed a Petition for post-grant review of claims 13, 18, and 19 of U.S. Patent No. 10,071,852 B2 (Ex. 1001). Paper 2 ("Pet."). Patent Owner, Southern Visions, LLP, filed a Preliminary Response. Paper 8. We instituted trial. Paper 9 ("DI").

Following institution, Patent Owner did not file a Patent Owner Response. Instead, Patent Owner filed a Motion to Amend requesting "on an unconditional basis" that we cancel challenged claims 13, 18, and 19, and enter proposed substitute claims 20–22. Paper 15 ("MTA") at 2. Petitioner filed an opposition. Paper 24. Pursuant to Patent Owner's request, *see* MTA at 2, we issued Preliminary Guidance, explaining that Petitioner had likely identified certain statutory and regulatory reasons for denying the Motion to Amend, but that Petitioner had not shown a reasonable likelihood that the proposed substitute claims were unpatentable. Paper 26 ("PG") at 3, 6, 11, 12.

Patent Owner filed a Revised Motion to Amend requesting "that the Board <u>cancel</u> original claims 13, 18 & 19, <u>unconditionally</u> consider this Motion, and enter [proposed] claims 23–25." Paper 27 ("Revised MTA") at 1 (emphasis in original). Petitioner filed an Opposition to the Revised Motion to Amend. Paper 30 ("Opp."). Patent Owner filed a Reply. Paper 32. Petitioner filed a Sur-reply. Paper 36.

Oral argument was held on August 11, 2020. A copy of the transcript of that argument was entered into the record. Paper 37 ("Hearing Tr.").

We have jurisdiction under 35 U.S.C. § 6, and we issue this Final Written Decision under 35 U.S.C. § 328(a). For the reasons below, we *grant* Patent Owner's Revised Motion to Amend with respect to Patent Owner's

request that we cancel original challenged claims 13, 18, and 19, but we *deny* Patent Owner's Revised Motion to Amend with respect to Patent Owner's request that we enter proposed substitute claims 23–25.

A. RELATED MATTERS

The parties identify the following related matter: *Southern Visions, LLP v. Red Diamond, Inc.*, No. 2:18-cv-02039-RDP (N.D. Ala.). Pet. 8; Paper 7 at 1.

Patent Owner also identifies the following related patents and patent application: U.S. Patents No. 9,468,222; No. 9,468,330; No. 9,549,634; No. 9,725,232; No. 10,071,852; No. 10,093,480; No. 10,130,209; and U.S. Application No. 16/166,862. Paper 7 at 1.

Subsequent to institution of this post-grant review, the Board instituted four *inter partes* reviews in which the same parties and similar subject matter—but different patents—are involved: IPR2019-01661, IPR2019-01662, IPR2019-01671, and IPR2020-00001.

B. THE '852 PATENT

The '852 patent relates to products for brewing sweetened beverages such as tea. Ex. 1001 at code (57). The '852 patent states that prior art methods of brewing sweetened beverages, which include manually adding sugar to a beverage after it brews, result in "a lack of consistency from one batch of beverages to the next" because, for example, "one usually does not have a scale to weigh out" the sweetener, which results in variation of Brix

level¹ among batches. *Id.* at 1:30–46. The '852 patent aims "to provide an accurate and consistent way of brewing sweetened beverages." *Id.* at 2:61–63. To that end, the '852 patent discloses brewing products that "contain[] beverage materials [e.g., tea] and sweetener in a prescribed blended ratio." *Id.* at 3:7–11.

The '852 patent attributes significance to the particle size of the sweetener. For example, the patent discloses that "[i]t has been found . . . that an advantageous size of particles of sweetener, particularly sugar, is that retained by US sieve numbers 3–35, although granule sizes larger than 3 will work as well." *Id.* at 9:37–41; *see also id.* at 4:20–23 ("Preferably, the size of the granulated sugar particles used is in the range of U.S. mesh sieve nos. 3–35; although, particles the size of U.S. mesh sieve nos. 3 or larger will work successfully in the present invention."). According to the '852 patent, "[t]he sweetener dissolves rapidly and more fully . . . when the granular size of the sweetener is generally U.S. Mesh sieve 35 or larger . . . as opposed to when the granular size of the sweetener is generally smaller than U.S. Mesh sieve 35." *Id.* at 12:14–19.

C. LEVEL OF ORDINARY SKILL IN THE ART

In the Institution Decision, we determined that "a person of ordinary skill in the art would have had sufficient experience and/or education in the food industry to possess an understanding of (1) sugar particle size as it pertains to brewed beverages, (2) sugar particle size screening, and (3) the storage and use of sugar in commercial settings." DI at 7–8. We also asked

¹ "One degree Brix is one gram of sucrose in 100 grams of solution Brewed sweetened tea has a typical Brix level of 10 to 11." Ex. 1001, 1:35– 43.

the parties to expressly discuss the level of ordinary skill in the art in remaining briefing if either party disagreed with our determination. *Id.* at 8.

For purposes of this Final Written Decision, we maintain our determination from the Institution Decision because neither party disputes the level of ordinary skill identified in the Institution Decision, and because we continue to find that the stated level of ordinary skill is consistent with the record.

II. MOTION TO AMEND

A. ORIGINAL CHALLENGED CLAIMS

As noted above, Patent Owner requests that we "unconditionally consider" the Revised Motion to Amend and cancel original claims 13, 18, and 19. Revised MTA at 1. Because Patent Owner has not indicated that our consideration of the Revised Motion to Amend is contingent on a determination that original challenged claims 13, 18, and 19 are unpatentable, we *grant* Patent Owner's request to cancel original challenged claims 13, 18, and 19. *See Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 3 (PTAB Feb. 25, 2019) (precedential) ("A request to cancel claims will not be regarded as contingent.").

The remaining issue before us is whether to grant the Revised Motion to Amend as to proposed substitute claims 23–25.

B. PROPOSED SUBSTITUTE CLAIMS

Patent Owner moves to replace original claims 13, 18, and 19 with proposed substitute claims 23, 24, and 25, respectively. The proposed substitute claims, with underlining indicating language added to, and strikethrough indicating language removed from, the original claims, are

reproduced below. *See* Revised MTA at Appx. A (Listing of Proposed Substitute Claims).

23. A beverage brewing product for producing a sweetened beverage comprising:

at least one water permeable sieve for placement in a container;

beverage <u>tea</u> particles and granulated sugar contained in said at least one sieve;

wherein said granulated sugar includes particles having a size in the range of U.S. mesh sieve no. 35 or lower;

at least 61 percent by weight of a total amount of granulated sugar in said at least one water permeable sieve is within the range of U.S. mesh sieve nos. 3-20;

wherein said total amount of granulated sugar in said at least one water permeable sieve is in the range of 1.5 to 3 pounds; and

said permeable sieve having openings being generally smaller than the size of the beverage <u>tea</u> particles and said sugar for the retention of said beverage <u>tea</u> particles and said sugar; so that said particles of said sugar are dissolved during steeping in water to produce a sweetened beverage.

24. The <u>A</u> beverage brewing product of claim 13 for producing a sweetened beverage comprising:

at least one water permeable sieve for placement in a container, wherein said at least one sieve is an open filter;

tea particles and granulated sugar contained in said at least one sieve;

wherein said granulated sugar includes particles having a size in the range of U.S. mesh sieve no. 35 or lower;

at least 50 percent by weight of a total amount of granulated sugar is in the range of U.S. mesh sieve nos. 3-18;

wherein said total amount of granulated sugar in said at least one water permeable sieve is in the range of 1.5 to 3.75 pounds; and

said permeable sieve having openings being generally smaller than the size of the tea particles and said sugar for the retention of said tea particles and said sugar; so that said particles of said sugar are dissolved during steeping in water to produce a sweetened beverage.

25. The <u>A</u> beverage brewing product of claim 13 for producing a sweetened beverage comprising:

<u>at least one water permeable sieve for placement in a container,</u> wherein said at least one sieve is formed from a material selected from a group consisting of polymer, cotton, <u>and</u> cellulose, and metal;

tea particles and granulated sugar contained in said at least one sieve;

wherein said granulated sugar includes particles having a size in the range of U.S. mesh sieve no. 35 or lower;

at least 70 percent by weight of a total amount of granulated sugar is in the range of U.S. mesh sieve nos. 3-16;

wherein said total amount of granulated sugar in said at least one water permeable sieve is in the range of 1.25 to 3 pounds; and

said permeable sieve having openings being generally smaller than the size of the tea particles and said sugar for the retention of said tea particles and said sugar; so that said particles of said sugar are dissolved during steeping in water to produce a sweetened beverage.

C. STATUTORY AND REGULATORY REQUIREMENTS

Before we consider the patentability of the proposed substitute claims, we determine whether the Revised Motion to Amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 326(d) and 37 C.F.R.

§ 42.221. See Lectrosonics, Paper 15 at 4.

1. Reasonable Number of Substitute Claims

A motion to amend may, "[f]or each challenged claim, propose a reasonable number of substitute claims." 35 U.S.C. § 326(d)(1)(B). "The presumption is that only one substitute claim would be needed to replace each challenged claim, and it may be rebutted by a demonstration of need." 37 C.F.R. § 42.221(a)(3).

Patent Owner cancels three claims and proposes three replacements. See generally Revised MTA. Petitioner does not argue that the proposed number of substitute claims is unreasonable. See generally Opp. We determine that the number of proposed substitute claims is reasonable.

2. Responsive to a Ground of Unpatentability

Patent Owner argues that proposed substitute claims 23–25 "are responsive because each adds novel and nonobvious feature combinations that further address Petitioner's arguments." Revised MTA at 15.

Each proposed substitute claim includes, *inter alia*, an amendment that narrows the sugar particle size recited in the corresponding original claim, and an amendment that specifies the total amount of granulated sugar used in the beverage brewing product. *See* Revised MTA at Appx. A. In the Institution Decision, we determined that Petitioner had shown a reasonable likelihood that the prior art taught or suggested the use of sugar that falls within the scope of the originally challenged claims. *E.g.*, DI at 26–27. The proposed amendments are responsive to that preliminary determination and to the arguments for unpatentability presented in the Petition.

Petitioner does not contend otherwise. See generally Opp.

On this record, we determine that the proposed amendments are responsive to a ground of unpatentability involved in the trial.

3. Scope of Proposed Substitute Claims

A motion to amend "may not enlarge the scope of the claims of the patent." 35 U.S.C. § 326(d)(3); 37 C.F.R. § 42.221(a)(2)(ii). Although Patent Owner does not appear to separately address this requirement in the Revised Motion to Amend, *see generally* Revised MTA, we have reviewed the proposed substitute claims and determine that they do not enlarge the scope of the claims of the patent because they add limitations that render each proposed substitute claim narrower than original challenged claim $13.^2$

Petitioner does not contend otherwise. See generally Opp.

On this record, we determine that the Revised Motion to Amend satisfies this requirement.

4. New Matter/Written Description

A motion to amend "may not . . . introduce new matter." 35 U.S.C. § 326(d)(3); see 37 C.F.R. § 42.221(a)(2)(ii). "New matter is any addition to the claims without support in the original disclosure." *Lectrosonics*, Paper 15 at 7 (citing *TurboCare Div. of Demag Delaval Turbomachinery Corp. v. General Elec. Co.*, 264 F.3d 1111, 1118 (Fed. Cir. 2001)). "[T]he Board requires that a motion to amend set forth written description support

² *Cf. Hunting Titan, Inc. v. Dynaenergetics Europe GmbH*, IPR2018-00600, Paper 67 at 9, 12 (PTAB July 6, 2020) (precedential) (Board may, in some circumstances, provide information usually provided by a party when it is "readily identifiable and so persuasive that the Board should take it up in the interest of supporting the integrity of the patent system.").

in the originally filed disclosure of the subject patent for each proposed substitute claim, and also set forth support in an earlier filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought." *Id.* (citing 37 C.F.R. §§ 42.121(b)(1) and (2)).³

Proposed substitute claim 23 includes, *inter alia*, the following new limitation:

at least 61 percent by weight of a total amount of granulated sugar in said at least one water permeable sieve is within the range of U.S. mesh sieve nos. 3-20.

Consistent with the nomenclature of the Revised Motion to Amend, *see* Revised MTA at 7, we refer to this limitation as the "percentage+range limitation."

The percentage+range limitation is the only limitation in proposed substitute claim 23 that Petitioner alleges constitutes new matter. *See* Opp. at 4. We have reviewed Patent Owner's identification of written description support for the other limitations of proposed substitute claim 23, *see* Revised MTA at 2–3, and we determine that, on the record before us, Patent Owner has adequately identified support for those limitations. However, as explained below, we agree with Petitioner that the percentage+range

³ At the oral hearing, it became apparent that the parties dispute which party bears the burden of persuasion on the issue of new matter. *E.g.*, Hearing Tr. 10. Board precedent "requires that a motion to amend set forth written description support in the originally filed disclosure." *Lectrosonics*, Paper 15 at 7. Thus, Patent Owner has the burden of persuasion on this issue. In any event, the outcome of this case would be the same regardless of who bears the burden on the issue of new matter, because, as explained below, Petitioner's arguments and evidence are adequate to establish that the disputed subject matter constitutes new matter.

limitation constitutes new matter and warrants denial of the Revised Motion to Amend with respect to entry of proposed substitute claim 23.

As is evident from our reproduction of proposed substitute claim 23 above, in terms of sugar particle size, originally challenged claim 13 required only that the granulated sugar include particles "having a size in the range of U.S. mesh sieve no. 35 or lower." Ex. 1001 at 14:27. That particle size limitation finds support, for example, in the original disclosure's statement that, "[p]referably, the size of the granulated sugar particles used is in the range of U.S. mesh sieve nos. 3-35; although, particles the size of U.S. mesh sieve nos. 3 or larger will work successfully in the present invention." Ex. 2040 ¶ 16. The percentage+range limitation of proposed substitute claim 23 modifies the original particle size limitation of claim 13 by specifying that 61 percent by weight of the granulated sugar must be within the narrower range of U.S. mesh sieve nos. 3–20.

Patent Owner cites ¶¶ 16, 26, 51, and 61 of the original disclosure as allegedly providing written description support for the percentage+range limitation. Revised MTA at 3. Consistent with Petitioner's arguments, *see generally* Opp., we find that neither the paragraphs cited by Patent Owner, nor any other portion of the original disclosure, mentions U.S. mesh sieve no. 20 in any context. *See generally* Ex. 2040. The closest mesh sieve number to 20 mentioned by the original disclosure is mesh sieve no. 35, which is mentioned, for example, in paragraph 16. *See, e.g., id.* ¶ 16. Other than stating that granulated sugar is preferably "in the range of U.S. mesh sieve nos. 3–35," *id.*, apparently indicating a preference that up to 100% by weight of the sugar be within that range, paragraph 16 does not attribute any significance to any particular weight percentage of any particular sugar

particle size, much less does it specifically identify 61 wt% within a mesh sieve no. range of 3–20 as a desirable embodiment. *See generally id.* Paragraph 26, also cited by Patent Owner, is essentially the same in relevant part as paragraph 16. *See id.* ¶ 26.

We also do not discern support for Patent Owner's position in paragraphs 51 or 61. Paragraph 51 gives a general description of mesh sieve sizes, notes that typical grocery store sugar has a mesh sieve range of 45– 120 and is "smaller than the size preferable for use in the present invention," and repeats that sugar retained by mesh sieve nos. 3–35 is "an advantageous size of particles," "although granule sizes larger than 3 will work as well." See id. ¶ 51. Paragraph 51 thus discloses that sugar in the size range of mesh sieve nos. 45–120 is smaller than desirable, but that sugar in the size range of mesh sieve nos. 3–35 is desirable. Paragraph 61 states that "[t]he sweetener dissolves rapidly and more fully in the present invention when the granular size of the sweetener is generally U.S. Mesh sieve 35 or larger (i.e. lower mesh numbers) as opposed to when the granular size of the sweetener is generally smaller than U.S. Mesh sieve 35 (i.e. mesh sieve numbers above 35)." Id. ¶ 61. We do not discern any disclosure in any of the cited paragraphs concerning a mesh size of 20 or an indication that any particular proportion of the sugar particles should be within a narrower size range than the range of 3–35 expressly disclosed by the written description. See generally id. ¶ 16, 26, 51, 61.

Patent Owner also cites various disclosures in U.S. Patent Application No. 13/867,526, which is an application to which the '852 patent claims priority. *See* Revised MTA at 2–3 (citing Ex. 2025). The cited paragraphs, however, reference only a mesh sieve range of 3–35 and, as above, do not

contemplate that any particular proportion of the sugar particles should be within a narrower size range. See Ex. 2025 ¶¶ 3, 10, 27, 28, 31, 32.

As described above, we find that neither the original disclosure nor the '526 application provides direct support for the percentage+range limitation. Patent Owner does not meaningfully contend otherwise. *See* Reply Br. at 1 (acknowledging that the original disclosure does not "expressly describe" the percentage+range limitation).

Patent Owner is correct that claimed numerical ranges do not necessarily need to correspond exactly to ranges described in an original disclosure in order to be supported by the original disclosure. Revised MTA at 8; Vas-Cath v. Mahurkar, 935 F.2d 1555, 1566 (Fed. Cir. 1991) (citing Ralston Purina Co. v. Far-Mar-Co, Inc., 772 F.2d 1570, 1575 (Fed. Cir. 1985), for the proposition that ranges found in applicant's claims need not correspond exactly to those disclosed in the specification). Thus, the fact that the mesh sieve range of 3–20 recited by proposed substitute claim 23 does not appear in the original disclosure is not, of itself, dispositive of whether it is supported by the original disclosure. However, it is well established that, to provide written description support, the original disclosure "must do more than merely disclose that which would render the claimed invention obvious." ICU Med., Inc. v. Alaris Med. Sys., Inc., 558 F.3d 1368, 1377 (Fed. Cir. 2009); Ariad Pharms., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1352 (Fed. Cir. 2010) (en banc) ("[A] description that merely renders the invention obvious does not satisfy the [written description] requirement."). The disclosure must "reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Id.* at 1351.

The most recent Federal Circuit case relevant to the issue of written description support for numerical ranges identified by the parties is *General Hospital Corp. v. Sienna Biopharmaceuticals, Inc.*, 888 F.3d 1368, 1372

(Fed. Cir. 2018).⁴ In that case, the Federal Circuit explained:

The disclosure of a broad range of values does not by itself provide written description support for a particular value within that range. Instead, where a specification discloses a broad range of values and a value within that range is claimed, the disclosure must allow one skilled in the art to *immediately discern the limitation at issue in the claims*.

Id. (emphasis added); *cf. Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 1000 (Fed. Cir. 2006) ("[T]he disclosure of a range is no more a disclosure of the end points of the range than it is of each of the intermediate points."). The Federal Circuit has also stated that, "[i]n the absence of blazemarks" that point to a particular species or sub-genus, "simply describing a large genus of compounds is not sufficient to satisfy the written description requirement." *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1571 (Fed. Cir. 1996).

We find those cases to be instructive because we discern no guidance in the original disclosure that points to the percentage+range limitation of proposed substitute claim 23. Nor do we find anything in the original disclosure that would "allow one skilled in the art to immediately discern"

⁴ Despite the fact that *Sienna* was cited in (1) Petitioner's opposition to Patent Owner's original Motion to Amend, Paper 24 at 11; (2) the Preliminary Guidance issued by the Board, PG at 8; and (3) Petitioner's opposition to Patent Owner's Revised Motion to Amend, Opp. at 12, Patent Owner fails to cite or discuss *Sienna*, *see generally* Revised MTA; Reply.

the percentage+range limitation. *See Sienna*, 888 F.3d at 1372. Patent Owner has not persuasively identified any portion of the original disclosure that attributes any significance to any mesh sieve number range other than 3–35, and Patent Owner has not persuasively identified any portion of the original disclosure that attributes any significance to having a particular proportion of particles (e.g., 61 wt%) falling within some narrower mesh sieve number range. *See* Ex. 1021 (Coffield Decl.) ¶¶ 23–24.

Patent Owner argues that the original disclosure shows "that one of the Inventors' discoveries is that larger refined sugar granules work better." Revised MTA at 9–10. We agree with Patent Owner that the original disclosure expresses a preference for large particles, but the original disclosure repeatedly identifies mesh sieve numbers 3–35 as corresponding to the preferred large sugar particle size range. *See, e.g.*, Ex. 2040 ¶ 16, ¶ 51 (identifying mesh sieve nos. 45–120 as "smaller than the size preferable for use in the present invention" and mesh sieve nos. 3–35 as "an advantageous size of particles of sweetener"). Patent Owner does not persuasively identify any disclosure indicating that particles larger than the range of mesh sieve nos. 3–35 (e.g., 3–20 as recited by proposed substitute claim 23) are desirable. *See, e.g.*, Reply Br. at 3 (acknowledging that the original disclosure teaches "using 'large' sugar in the 3–35 range").

In the Reply, Patent Owner asserts that "the Disclosures teach using sugar larger than Sugar in the Raw," which "is at least 75% retained on mesh 20." Reply Br. at 3 (citing Ex. 2025 ¶ 31). Paragraph 31 of Exhibit 2025, cited by Patent Owner, discloses that "[o]ne reason the sugar works in the present invention is the granular size (retained by U.S. mesh sieve 3–35). It is like sugar in the raw, but bigger." Ex. 2025 ¶ 31. That disclosure

suggests that mesh sieve nos. 3–35 yield sugar that is bigger than sugar in the raw, and—consistent with numerous other portions of the original disclosure—that mesh sieve nos. 3–35 provide a desirable sugar size. It provides no apparent suggestion to use sugar particles larger than the range of mesh sieve nos. 3–35, or to use a particular particle size distribution from some narrower subset of mesh sieve numbers within that range. Paragraph 31 and numerous other paragraphs throughout both the '526 Application and the original disclosure of the '852 patent plainly and repeatedly point to a mesh sieve range of 3 to 35—not a range that would yield larger particles, such as 3–20 as recited by proposed substitute claim 23. *E.g.*, Ex. 2040 ¶¶ 16, 26, 51, 61, 62, claim 2, claim 7, claim 14; Ex. 2025 ¶¶ 10, 25, 31, claim 5, claim 10, claim 14, claim 18, claim 34.

Patent Owner also states that, "[b]ecause each of the percentage+range limitations [of proposed substitute claims 23–25] is well within the originally claimed range, each has written description support." Revised MTA at 10–11. Patent Owner appears to be relying on a bright line rule that the disclosure of a broader numerical range necessarily provides support for a narrower one. *See id.* We do not agree that any such bright line rule exists. *See Sienna*, 888 F.3d at 1372; *see also Ralston Purina*, 772 F.2d at 1575 ("Precisely how close the original description must come to comply with the description requirement of 35 U.S.C. § 112 must be determined on a case-by-case basis."). Even accepting Patent Owner's arguments that a person of ordinary skill generally "understands sugar particle size distributions" and that "a percentage is a good way to describe 'how much' large sugar works," Revised MTA at 10–11; Reply Br. at 2, that

fails to show support in the original disclosure for the percentage+range limitation.

Patent Owner also argues that the original disclosure describes "working embodiments because all embodiments necessarily include sugar size blends," and that the inventors "knew that blends inherently disclosed as part of their invention worked!" Revised MTA at 11. That argument is unpersuasive because Patent Owner provides no citation to the original disclosure or other evidence that any working example described in the original disclosure or the disclosure of a parent application falls within the scope of proposed substitute claim 23. *See id.* Patent Owner's assertion that the named inventors "knew" that particle size ranges other than mesh sieve nos. 3–35 would work is unpersuasive because it fails to show that the original disclosure itself "conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad*, 598 F.3d at 1351. What may have been in the minds of the inventors is less probative than what actually appears in the original disclosure. *Id.* at 1352 ("[I]t is the specification itself that must demonstrate possession.").

Patent Owner also argues that "the written description requirement may be satisfied through disclosure of function and minimal structure," and that the original disclosure shows "that the structure of larger sugar . . . results in the function of producing sweet iced tea. From this disclosure, a POSA appreciates the Inventors' knowledge that the percentage+range limitations worked." Revised MTA at 11–12. That argument is not persuasive because, even accepting Patent Owner's position concerning structure and function, the original disclosure teaches that sugar retained by mesh sieve nos. 3–35 has the structure (i.e., particle size) needed to

optimally carry out the function (i.e., sweetening a beverage). *E.g.*, Ex. 2040 ¶ 16. We discern no suggestion in the original disclosure that some other range of mesh sieve numbers would be superior structure to carry out the function; nor do we discern any suggestion that a particular proportion (i.e., 61 wt%) of sugar particles should fall within some narrower size range.

Patent Owner also argues that, because the art is generally predictable, "the level of detail required to show possession of the percentage+range limitations is low." Revised MTA at 12. Even accepting that assertion as accurate, however, there still must be something in the original disclosure to indicate that the inventors were in possession of the recited subject matter as of the filing date. *See Ariad*, 598 F.3d at 1351. For the reasons discussed in this decision, on this record, we do not agree with Patent Owner that the original disclosure is adequate to show possession of the percentage+range limitation of proposed substitute claim 23.

Patent Owner cites several cases in support of its position that the disclosed mesh sieve range of 3–35 is adequate to show possession of the percentage+range limitation of proposed substitute claim 23. *See generally* Revised MTA. Each cited case is distinguishable from the circumstances present here. In *In re Wertheim*, a claimed solids content range of "at least 35%" (i.e., no upper boundary) was not supported by a disclosure of 25–60% solids and specific disclosed examples of 36% and 50%, but a claimed solids content range of "between 35% and 60%" was supported by those disclosures. 541 F.2d 257, 262–65 (CCPA 1976). Relevant to the outcome in *Wertheim* was that a specifically disclosed example (36%) differed from the lower end of the recited range (35–60%) by only 1%. *Id*. at 264–65

("What those skilled in the art would expect from using 34% solids content . . . instead of 35% is a different matter from what those skilled in the art would expect from the next adjacent homolog of a compound whose properties are disclosed in the specification."). The disclosed example (36%) was a blazemark pointing to 35%. The difference between proposed substitute claim 23 and the disclosure at issue in this case (i.e., mesh sieve no. 20 (recited by proposed substitute claim 23) vs. mesh sieve no. 35 (original disclosure)) is more significant than was the difference in *Wertheim*. In any event, in *Wertheim* the CCPA expressly stated that it was not "creating a rule applicable to all description requirement cases involving ranges." 541 F.2d at 264–65.

In Union Oil Co. of California v. Atlantic Richfield Co., the Federal Circuit explained that "[t]he patent unmistakably informs skilled refiners to increase or decrease the various components to arrive at preferred combinations," and also that "[t]he claimed ranges of the originally filed claims are the same as those set forth in the six claims of the issued '393 patent In other words, the disclosure at the time of filing taught one of skill in the art that the inventors possessed the subject matter of the later claims." 208 F.3d 989, 999–1000 (Fed. Cir. 2000). Thus, the original disclosure there (which includes the original claims, *see id.* at 994) provided guidance leading to the disputed subject matter. Here, the original disclosure leads to a mesh sieve number range of 3–35, and Patent Owner does not persuasively identify a disclosure from which the narrower range of the percentage+range limitation could be derived. As noted above, the fact that the original disclosure may render the percentage+range limitation obvious is not adequate to show written description support. Additionally,

we observe that, in *Union Oil Co.*, the Federal Circuit was reviewing jury findings concerning written description under the deferential standard of review accorded to jury determinations. *See id.* at 1001 ("Because the record shows substantial evidence of adequate written description for each claim as the jury found, this court affirms.").

Patent Owner also cites several Board decisions from *ex parte* appeals, each of which pre-dates the Federal Circuit's *Sienna* decision, discussed above. Revised MTA at 8. The cited Board decisions are nonprecedential. *See id.* Each of those decisions is also distinguishable from the facts before us.

In *Ex parte Cauffriez*, the disclosure at issue listed several examples of preferred ranges (that encompassed the claimed ranges), indicating that the inventors were in possession of more than a single range at the time of the original disclosure, and indicating that the inventors did not regard any single recited range as critical. See 2012 WL 3142174 (PTAB July 30, 2012). In *Ex parte Tran*, the Board identified several aspects of the original disclosure that reasonably pointed to the disputed subject matter, and the Board determined that the Examiner failed to adequately explain the Examiner's rejection. See Appeal 2014-008001, at 5, 7 (PTAB July 18, 2016). In *Ex parte Logan*, the Board characterized the Examiner's rejection as "consist[ing] of three conclusory sentences," and the Board determined that "[t]he Examiner fails to present any reasoning or evidence" in support of the Examiner's new matter rejection. See Appeal 2013-002601, at 4 (PTAB Apr. 15, 2015). In *Ex parte Sixt*, the Board found that the Examiner had "overlook[ed]" a significant disclosure in the specification that contributed to the Board's determination that the Examiner did not

adequately establish that the disputed limitation was new matter. *See* Appeal 2011-011725, at 6 (PTAB Sept. 20, 2013).

Although we have reviewed and considered each of the cases cited by Patent Owner, and we agree with Patent Owner that, in some cases, a broader disclosed range may be sufficient to support a narrower claimed range, we do not find the cited cases to provide significant support for Patent Owner's position on the particular facts of the case before us.

Even were we to agree with Patent Owner that the cases discussed above support a determination that the original disclosure of a mesh sieve size range of 3–35 supports the narrower range of 3–20 recited by proposed substitute claim 23, that would not end the inquiry. As Petitioner points out in the Opposition, Opp. at 12, proposed substitute claim 23 recites not only a mesh sieve size range of 3–20, but it also requires that "at least 61 percent by weight of a total amount of granulated sugar" fall within that range. Consistent with Petitioner's arguments, Opp. at 12, and as indicated above, we discern no support in the original disclosure for a limitation requiring a certain percentage of sugar particles to fall within a certain narrower subset of mesh sieve nos. 3–35.

Patent Owner's position appears to be that, by virtue of not reciting any limitation on the weight % of sugar within the claimed range, the original disclosure implicitly discloses a weight % range of "more than zero" (i.e., 0–100%) for any given particle size within mesh sieve number range 3– 35, and, therefore, that any weight percentage of any particle size range between 3–35 is supported by the original disclosure. *See* Revised MTA at 9. We disagree because that position is inconsistent with various Federal Circuit cases discussed above, including, for example, *Sienna*, 888 F.3d at

1372 ("The disclosure of a broad range of values does not by itself provide written description support for a particular value within that range."). We agree with Petitioner that the original disclosure "never even frame[s] the concept of weight percentages for various sized sugars, which is the focus of the proposed amendments." Opp. at 12. A person of ordinary skill in the art's generic familiarity with sugar particle size distribution, *see* Revised MTA at 10–11; Reply Br. 2, does not show possession by the inventors of the distribution specified by proposed substitute claim 23. *See Ariad*, 598 F.3d at 1352 ("[I]t is the specification itself that must demonstrate possession.").

Finally, we find persuasive Petitioner's argument that the subject matter of the percentage+range limitation was "devised during [a named inventor's] recent testing in support of the motion to amend." Opp. at 7–9. The specific numbers (61 wt%, 3–20 mesh) in the percentage+range limitation appear in data obtained from experiments run by a named inventor in connection with a declaration that was prepared for and submitted in this post-grant review proceeding. See Ex. 2028 ¶¶ 61, 72, 73; Ex. 1019 at 76:2-23; Ex. 2020 at 43:5–20. Although that is not dispositive of the new matter issue in this case because it is possible that the original disclosure could support those figures and that experimental data obtained after the filing date of the original disclosure could happen to precisely match, we nevertheless find it to be moderately persuasive evidence that the disputed subject matter was not derived from the original disclosure, but, rather, that it was derived from experiments performed for purposes of this proceeding. In this case, there is "reason to doubt" whether the broader range of the original disclosure shows possession by the inventors of the narrower range of

proposed substitute claim 23. *See Wertheim*, 541 F.2d at 264 ("[T]he question is whether, on the facts, the PTO has presented sufficient reason to doubt that the broader described range also describes the somewhat narrower claimed range.").

Taking into account all of the evidence of record identified by the parties, and all of the arguments presented by the parties, we find that the percentage+range limitation of proposed substitute claim 23 constitutes new matter.

Proposed substitute claims 24 and 25 include percentage+range limitations that differ from proposed substitute claim 23 only in the specific weight percentage and mesh sieve size range recited. Patent Owner does not present separate arguments concerning the weight percentages or mesh sieve size ranges of proposed substitute claims 24 and 25. We determine that the analysis set forth above with respect to proposed substitute claim 23 applies equally to proposed substitute claims 24 and 25. Accordingly, we determine that the percentage+range limitations of proposed substitute claims 24 and 25 constitute new matter.

Because each of proposed substitute claims 23–25 introduces new matter, we must deny Patent Owner's Revised Motion to Amend with respect to Patent Owner's request that we enter claims 23–25 as substitutes for cancelled claims 13, 18, and 19. *See* 35 U.S.C. § 326(d)(3); 37 C.F.R. § 42.221(a)(2)(ii).

D. PATENTABILITY OF PROPOSED SUBSTITUTE CLAIMS

Because our determination above is dispositive of Patent Owner's Revised Motion to Amend with respect to Patent Owner's request that we enter proposed claims 23–25 as substitutes for cancelled claims 13, 18, and

19, we do not address whether proposed substitute claims 23–25 would have been obvious over the prior art of record.

III. CONCLUSION

Patent Owner's request to cancel original challenged claims 13, 18, and 19 is *granted*.

Patent Owner's request to enter proposed substitute claims 23–25 is *denied*.

In summary:

Motion to Amend Outcome	Claim(s)
Original Claims Cancelled by Amendment	13, 18, 19
Substitute Claims Proposed in the Amendment	23–25
Substitute Claims: Motion to Amend Denied	23–25

IV. ORDER

It is hereby:

ORDERED that claims 13, 18, and 19 of the '852 patent are

cancelled;

FURTHER ORDERED that Patent Owner's request to substitute claims 23–25 for cancelled claims 13, 18, and 19 is *denied*;

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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