

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RED DIAMOND, INC.,
Petitioner,

v.

SOUTHERN VISIONS, LLP,
Patent Owner.

IPR2019-01671
Patent 9,468,330 B2

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

ABRAHAM, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Granting In Part Patent Owner's Revised Motion to Amend
35 U.S.C. § 318

I. INTRODUCTION

Petitioner, Red Diamond, Inc., filed a Petition for *inter partes* review of claims 1, 6, 10, 11, and 12 of U.S. Patent No. 9,468,330 B2 (Ex. 1001, “the ’330 patent”). Paper 1 (“Pet.”). Patent Owner, Southern Visions, LLP, did not file a Preliminary Response. On April 1, 2020, we instituted trial. Paper 6 (“Inst. Dec.”).

Following institution, Patent Owner did not file a Response. Instead, Patent Owner filed a Motion to Amend requesting that we cancel claims 1, 6, and 10–12, unconditionally consider its Motion to Amend, and enter proposed substitute claims 13–17. Paper 8 (“MTA”) 1. Petitioner filed an opposition. Paper 12. Pursuant to Patent Owner’s request (MTA 1) we issued Preliminary Guidance, explaining that Patent Owner had not shown a reasonable likelihood that it satisfied the statutory and regulatory requirements associated with a motion to amend, and that Petitioner had demonstrated a reasonable likelihood that the proposed substitute claims were unpatentable. Paper 14 (“PG”) 3, 11.

Patent Owner subsequently filed a Revised Motion to Amend requesting “that the Board cancel original claims 1, 6, & 10–12, unconditionally consider this Motion, and enter [proposed substitute] claims 18–22.” Paper 15 (Revised MTA) 1. Petitioner filed an Opposition to the Revised Motion to Amend (Paper 26 (“Opp.”)), Patent Owner filed a Reply (Paper 30), and Petitioner filed a Sur-reply (Paper 32).

We held an oral argument on January 29, 2021. A copy of the transcript of that argument was entered into the record. Paper 34 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6, and we issue this Final Written Decision under 35 U.S.C. § 318(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 1, 6, and 10–12, but we deny Patent Owner’s Revised Motion to Amend with respect to Patent Owner’s request that we enter proposed substitute claims 18–22.

A. RELATED MATTERS

The parties identify the following related district court matter: *Southern Visions, LLP v. Red Diamond, Inc.*, No. 2:18-cv-02039-RDP (N.D. Ala.). Pet. 8–9; Paper 4, 1. The parties also identify PGR2019-00045 involving related US Patent No. 10,071,852, IPR2019-01661 involving related US Patent No. 9,468,222, IPR2019-01662 involving related US Patent No. 9,725,232, and IPR2020-00001 involving related US Patent No. 9,549,634. Pet. 8; Paper 4, 1. Additionally, Patent Owner identifies related US Patent No. 10,093,480, US Patent No. 10,130,209, and US Application No. 16/166,862. Paper 4, 1.

B. THE ’330 PATENT

The ’330 patent, titled “Domestic Sweet Tea Brewing Product and Process,” issued on October 18, 2016, and relates to products for brewing sweetened beverages such as tea and coffee. Ex. 1001, codes (45), (54), (57). The ’330 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 tea 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. Ex. 1001, 1:15–31. The '330 patent aims “to provide an accurate and consistent way of brewing sweetened tea.” Ex. 1001, 2:33–34. To that end, the '330 patent discloses providing “a mesh pouch containing tea and sugar in a prescribed blended ratio for use in the brewing basket of a drip coffee machine to brew tea accurately and consistently.” Ex. 1001, 2:44–47.

The '330 patent explains that the mesh pouch is water permeable and has a mesh size for retaining the tea and sugar particles. Ex. 1001, 2:64–66. The pouch can be placed in a brewing basket with hot water

to steep the tea particles and sugar granules in hot water in the basket and extract tea and dissolve sugar in the water permeable pouch to produce a hot concentrated sweet tea solution. The concentrated sweet tea solution is added to water. In this manner, the tea is already effectively sweetened when it is added to the water.

Ex. 1001, 2:66–3:6.

The '330 patent attributes significance to the mesh size and particle size of the sweetener. For example, the patent discloses that “[p]referably, the pouch has a mesh selected from a range of about 50 to 300 microns, and the size of the sugar granules is in the range of U.S. mesh sieve nos. 3–35.” Ex. 1001, 3:19–21. The '330 patent explains the relationship between mesh number and particle size of the sugar, noting that the smaller the mesh number, the larger the granules of sugar are. Ex. 1001, 5:9–11. According to the '330 patent, “[i]t has been found . . . that an advantageous sieve size for the sugar of the present invention is that retained by US sieve numbers

¹ “One degree Brix is one gram of sucrose in 100 grams of solution Brewed sweetened tea has a typical Brix level of 10½ to 11.” Ex. 1001, 1:21–28.

3–35.” Ex. 1001, 5:12–15; *see also* Ex. 1001, 7:8–10 (“One reason the sugar works in the present invention is the granular size (retained by U.S. mesh sieve 3–35).”). The use of larger granules of sugar allows the sugar to dissolve easier and better, and allows the hot water to flow around the granules at the same time as the tea is being extracted out of the tea particles, reducing two steps into one. Ex. 1001, 5:39–50. The ’330 patent further indicates that “[t]he key is the heat. The heat in the brewing basket dissolves all the sugar.” Ex. 1001, 7:14–15.

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.” Inst. Dec. 6–7. We observed that this level of ordinary skill is consistent with the level of ordinary skill that we adopted in a related case that involves similar subject matter. *See Red Diamond, Inc. v. Southern Visions, LLP*, PGR2019-00045, Paper 9 at 6–8 (PTAB Oct. 15, 2019). We also asked the parties to expressly discuss the level of ordinary skill in the art in the remaining briefing if either party disagreed with our determination.

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 (*see* Revised MTA 11–12), 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 1, 6, and 10–12. Revised MTA 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 1, 6, and 10–12 are unpatentable, we grant Patent Owner’s request to cancel original challenged claims 1, 6, and 10–12. *See Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 3 (PTAB Feb. 25, 2019) (precedential) (“*Lectrosonics*”) (“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 18–22.

B. APPLICABLE LAW

In reviewing a motion to amend, we consider whether the motion meets the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) (2012) and 37 C.F.R. § 42.121 (2019). *See Lectrosonics*, Paper 15 at 4. That is, the patent owner must demonstrate the following: (1) the amendment proposes a reasonable number of substitute claims; (2) the amendment responds to a ground of unpatentability involved in the trial; (3) the amendment does not seek to enlarge the scope of the claims of the patent or introduce new subject matter; and (4) the proposed claims are supported

in the original disclosure of the patent. *See* 35 U.S.C. § 316(d) (2012); 37 C.F.R. § 42.121 (2020); *see also Lectrosonics*, Paper 15 at 4–8.

We also consider unpatentability. In that regard, a patent owner “does not bear the burden of persuasion to demonstrate the patentability of [the proposed] substitute claims.” *Lectrosonics*, Paper 15 at 4 (citing *Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1311 (Fed. Cir. 2017); *Bosch Auto. Serv. Sols. LLC v. Matal*, 878 F.3d 1027, 1040 (Fed. Cir. 2017)). “Rather, as a result of the current state of the law and [U.S. Patent and Trademark Office] rules and guidance, the burden of persuasion ordinarily will lie with the petitioner to show that any proposed substitute claims are unpatentable by a preponderance of the evidence.” *Lectrosonics*, Paper 15 at 4.

C. PROPOSED SUBSTITUTE CLAIMS

Patent owner moves to replace original claims 1, 6, and 10–12 with proposed substitute claims 18–22, 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, Appendix A (Listing of Proposed Substitute Claims).

18. A sweet tea brewing product for producing a concentrated sweet tea solution for mixing with a proportioned amount of water to make sweet tea comprising:

at least one water permeable mesh pouch for placement in a container;

tea particles and sugar granules contained in said at least one water permeable mesh pouch, said sugar granules having a total weight;

wherein said sugar granules include granules having a size in the range of U.S. mesh sieve nos. 3-35;

wherein said at least one water permeable mesh pouch includes more of said granules having a size in the range of U.S. mesh sieve nos. 3-35 than present in said total weight of Sugar in the Raw;

said water permeable mesh pouch having openings being generally smaller than the size of said sugar granules and said tea particles for retention of said granules and tea particles; and so that said tea particles and sugar granules are extracted and dissolved in said container during steeping in hot water whereby a said concentrated sweet tea solution is produced to be mixed with a said proportioned amount of water for making said sweet tea.

19. ~~The product of claim 2~~ A sweet tea brewing product for producing a concentrated sweet tea solution for mixing with a proportioned amount of water to make sweet tea comprising:

at least one water permeable mesh pouch for placement in a container;

tea particles and sugar granules contained in said at least one water permeable mesh pouch, said sugar granules having a total weight;

wherein said at least one water permeable mesh pouch contains said tea particles and said sugar granules in a prescribed blend ratio;

wherein said sugar granules include granules having a size in the range of U.S. mesh sieve nos. 3-35;

wherein said at least one water permeable mesh pouch includes more of said granules having a size in the range of U.S. mesh sieve nos. 3-35 than present in said total weight of typical grocery store sugar;

said water permeable mesh pouch having openings being generally smaller than the size of said sugar granules and said tea particles for retention of said granules and tea particles; and so that said tea particles and sugar granules are extracted and dissolved in said container during steeping in hot water whereby

said concentrated sweet tea solution is produced to be mixed with said proportioned amount of water for making said sweet tea.

20. ~~The product of claim 6~~ A sweet tea brewing product for producing a concentrated sweet tea solution for mixing with a proportioned amount of water to make sweet tea comprising:

at least one water permeable mesh pouch for placement in a container;

tea particles and sugar granules contained in said at least one water permeable mesh pouch;

wherein said at least one water permeable mesh pouch contains said tea particles and sugar granules in a prescribed blend ratio;

wherein the blend ratio of tea to sugar is in the range of 1:5 to 1:25;

wherein said sugar granules include granules having a size in the range of U.S. mesh sieve nos. 3-35;

wherein all of said sugar granules contained in said at least one water permeable mesh pouch constitute a blend of sugar;

wherein said blend of sugar is bigger than Sugar in the Raw;

said water permeable mesh pouch having openings being generally smaller than the size of said sugar granules and said tea particles for retention of said granules and tea particles; and so that said tea particles and sugar granules are extracted and dissolved in said container during steeping in hot water whereby said concentrated sweet tea solution is produced to be mixed with said proportioned amount of water for making said sweet tea.

21. A method for brewing sweetened tea comprising

providing at least one mesh pouch containing a prescribed blend of tea particles and sugar granules,

said sugar granules including granules having a size in the range of U.S. mesh sieve nos. 3-35, and

said mesh pouch having mesh openings being generally smaller than the size of said sugar granules and said tea particles for retention of said granules and tea particles;

steeping said mesh pouch in hot water in a brewing basket of a commercial iced tea brewing machine, allowing said tea particles and sugar granules to infuse and dissolve to produce a hot concentrated sweet tea solution; and

mixing said concentrated sweet tea solution with a proportioned amount of water in an urn of said commercial iced tea brewing machine to produce about 3 gallons of a sweet tea for drinking wherein ~~the sugar is~~ said sugar granules are more completely and consistently dissolved in comparison to the use of typical grocery store sugar in said at least one water permeable mesh pouch.

22. A sweet tea brewing product for producing a concentrated sweet tea solution for mixing with water to produce a sweet tea for drinking comprising:

at least one water permeable mesh pouch for placement in a container;

tea particles and sugar granules contained in said at least one water permeable mesh pouch;

wherein said sugar granules include about 3 pounds of granules having a size in the range of U.S. mesh sieve nos. 3-35;

said water permeable mesh pouch having openings smaller than the size of said sugar granules and said tea particles for retention of said granules and tea particles; and said tea particles and sugar granules producing a concentrated sweet tea solution when steeped in hot water wherein said concentrated sweet solution may be mixed with a proportioned amount of water to produce sweet tea for drinking.

D. CHALLENGES TO PATENTABILITY

Petitioner contends the proposed substitute claims are unpatentable based on the following challenges:

Proposed Substitute Claims	35 U.S.C. §	Reference(s)/Basis
18–22	112(b)	Indefiniteness
21	112(a)	Enablement
18–20	102	Cooper ²
18–20	103	Cooper, Thijssen ³
21, 22	103	Cooper, Thijssen, Admitted Prior Art

See generally Opp.

E. ANALYSIS

1. *Patentability of Proposed Substitute Claims 18 and 20 - Indefiniteness*

Proposed substitute claim 18 recites, *inter alia*, a sweet tea brewing product comprising at least one water permeable mesh pouch, tea particles, and sugar, wherein the sugar granules include granules having a size in the range of U.S. mesh sieve nos. 3–35, and “wherein said at least one water permeable mesh pouch includes more of said granules having a size in the range of U.S. mesh sieve nos. 3-35 than present in said total weight of Sugar in the Raw.” Revised MTA, Appendix A at 1. Proposed substitute claim 20 recites a sweet tea brewing product comprising a water permeable mesh

² US 5,895,672, issued Apr. 20, 1999 (Ex. 1008).

³ US 3,862,347, issued Jan. 21, 1975 (Ex. 1022).

pouch having a blend of sugar that is “bigger than Sugar in the Raw.”
Revised MTA, Appendix A at 3.

Petitioner contends proposed substitute claims 18 and 20 are unpatentable as indefinite under 35 U.S.C. § 112(b). Citing section 2173.03(u) of the MPEP, Petitioner argues that a claim does not comply with the requirements of 35 U.S.C. § 112(b) if a trademark is used in a claim as a limitation to identify or describe a particular material or product. Opp. 6–7. According to Petitioner, “Sugar in the Raw” is a registered trademark, and “is being used to describe a benchmark material that defines the scope of coverage.” Opp. 7. Petitioner notes that Sugar in the Raw “appears to have no published specification” (Opp. 7 n.4; *see also* Sur-reply 10) and argues that sugar products designated under the name Sugar in the Raw are subject to change at the discretion of the owners of the mark (Opp. 7). As a result, Petitioner asserts the standard for infringement may shift over time. Opp. 7. Petitioner further notes that Patent Owner’s own declarant, Mr. Ebersole noted “significant variations in granule sizes” when testing different lot numbers of Sugar in the Raw. Opp. 7 n.4.

In its Reply, Patent Owner argues that the use of a trademark does not necessarily render the claims indefinite, noting that “numerous PTAB panels have found trade names definite where a POSA would understand the term in the context of the claim.” Reply 3 (citing *Ex Parte Dietrich*, Appeal No. 2015-002477 (PTAB Nov. 2, 2016); *Ex Parte O’Farrell*, Appeal No. 2011-011075 (PTAB May 20, 2014); *Ex Parte Regen*, Appeal No. 2011-005683 (PTAB Dec. 4, 2013)). Patent Owner contends that “Sugar in the Raw is readily available (*see* Ex. 2067 at 19:24–20:19), and has a specification (*see* Ex. 2090 at 32:4–6) that is unchanged since the priority date. *See* Ex. 1004

at ¶ 59.” Reply 3. Patent Owner acknowledges that there is some variability within Sugar in the Raw, but argues the variability is “consistent with the type of variation . . . in a natural product.” Reply 3–4 (quoting Ex. 2091, 37:13–17). Accordingly, Patent Owner contends a person of ordinary skill in the art would understand the meaning of Sugar in the Raw. Reply 4.

In response, Petitioner argues the Board decisions Patent Owner cites are factually distinguishable because Sugar in the Raw “is not on its face descriptive of the claimed element” and does not “permit[] a person of ordinary skill in the art to discern the metes and bounds of the claims.” Sur-reply 8–9. Petitioner also questions Patent Owner’s assertion that there is a single specification for Sugar in the Raw, and argues that to the extent there is, Patent Owner’s evidence demonstrates “there is only an *internal* specification by the producer from Colombia.” Sur-reply 9–10. According to Petitioner, “[s]ince size is the critical factor in the claims, the lack of defined size parameters prevents a person of ordinary skill in the art from discerning the metes and bounds of the claimed subject matter thereby rendering the claim indefinite.” Sur-reply 10.

We are persuaded by Petitioner’s arguments. As Patent Owner acknowledges, in evaluating whether the presence of a trademark in a claim renders a claim indefinite, we consider the use of the term *in the context of the claims*. Reply 3; *see Regen*, Appeal No. 2011-005683, at 4. Proposed substitute claims 18 and 20 require a comparison between the size of the granules in the sugar used in the claimed invention and the size of the granules in Sugar in the Raw. Thus, the metes and bounds of proposed substitute claims 18 and 20 are defined by the size of the granules in Sugar in the Raw brand sugar.

The evidence of record suggests that the term Sugar in the Raw merely identifies a brand of sugar as opposed to identifying, or otherwise providing some guidance regarding, the particle size distribution of the granules in Sugar in the Raw brand sugar. For example, Patent Owner directs us to deposition testimony from its declarant, Mr. Ian Prentice, in support of its argument that Sugar in the Raw has a specification. Reply 3 (citing Ex. 2090, 32:4–6). Petitioner, however, directs us to additional testimony from Mr. Prentice, inviting us to consider more than just the specific portion of the deposition transcript Patent Owner cites. Sur-reply 9 (citing Ex. 1032, 31–32⁴). The relevant testimony from Mr. Prentice regarding a specification for Sugar in the Raw is provided below, and includes the lines cited by both parties:

Q: How does the size of -- we will start with standard granulated Sugar -- compare to Sugar in the Raw?

A: It wouldn't -- it all depends. There's different specs for Sugar in the Raw. There's different specs for standard. Some are the same. Some are a bit bigger.

...

Q: . . . What do you mean that there's different specs for Sugar in the Raw?

A: Well, Sugar in the Raw is produced by [a] Colombian company and they have their own spec, and it's basically -- I believe Sugar in the Raw is a trademark.

Ex. 1029, 31:8–32:7 (counsel's objections omitted).

⁴ Although Petitioner cites to Exhibit 1032, no such exhibit exists in the record. We understand Petitioner to be citing to Exhibit 1029, which includes a copy of the relevant pages of the Iain Prentice deposition transcript and a footer identifying the document as "Red Diamond Exhibit 1032." Ex. 1029.

At best, this testimony indicates that a Colombian company that produces Sugar in the Raw has “their own spec,” but it also suggests that there may be other, different specifications for the product. Nevertheless, this testimony does not refute Petitioner’s contention that that Sugar in the Raw “appears to have no published specification.” Opp. 7 n.4. In this regard, we note that a specification for Sugar in the Raw is not part of this record.

Even if we were to agree with Patent Owner that the evidence supported a finding that Sugar in the Raw has a specification, and that the specification “is unchanged since the priority date,”⁵ the evidence of record fails to clarify whether any such specification would include particle size requirements at all, or what those requirements might be. Furthermore, we agree with Petitioner that any such specification is still subject to change at the discretion of the owners of the trademark. Opp. 7.

In view of this, we find that a person of ordinary skill in the art would have to rely on testing a sample of Sugar in the Raw in order to determine the particle size distribution of the granules in Sugar in the Raw at any particular time. Petitioner directs us to evidence that tests from different lots of Sugar in the Raw show variability with regard to particle size. Opp. 7 n.4 (citing Ex. 2076, Exhibit C at 10). Patent Owner acknowledges that “there

⁵ Patent Owner cites to testimony from Petitioner’s declarant, Mr. Coffield, to support this assertion. Reply 3 (citing Ex. 1004 ¶ 59). Mr. Coffield testified that “[t]o my knowledge, there have been no wide-scale industry manufacturing changes after the priority date of 22 April 2013 that would have materially affected the size of granules in EFG sugar, SUGAR IN THE RAW® or rock sugar.” Ex. 1004 ¶ 59. As this statement refers to manufacturing changes, we disagree with Patent Owner’s contention that this is evidence that there is a single specification for Sugar in the Raw.

is some variability” shown in the data, but contends “it is ‘consistent with the type of variation . . . in a natural product.’” Reply 3. This evidence of variability with regard to particle size seen through testing is consistent with testimony from Adam Stewart, listed as an inventor on the ’330 patent, who indicated that he too found variability in particle size between different lot numbers of Sugar in the Raw products:

we took the Sugar in the Raw from Target and took the Sugar in the Raw from Walmart and poured it on the counter and could see that, you know, -- the first thing I noticed, they had two different lot numbers on the boxes and then noticed that -- we poured them out, you know. One Sugar in the Raw was a lot larger than the other.

Ex. 2067, 21:8–15. Although Patent Owner contends this variability is typical in a natural product, testimony from Mr. Stewart suggests that such variability is significant here because the operability of the invention is dependent on particle size. Ex. 2067, 20:15–21:20 (Mr. Stewart testifying that when he replaced the sugar he had in stock with Sugar in the Raw purchased from Walmart, “it didn’t work,” but when he used the sugar from Target, “it worked.”).

The absence of evidence of a standard specification for Sugar in the Raw as of the priority date, combined with evidence of variability in particle sizes for different lots of Sugar in the Raw, distinguishes this case from the Board decisions Patent Owner cites. In *Regen*, the Board found that a person of ordinary skill in the art “would have understood that the terms ‘Bluetooth external wireless devices,’ in the context of the claimed invention, refers to devices that conform to the Bluetooth interoperability standards established by Bluetooth Sig, Inc., and accepted by the IEEE . . . at the time of the claimed invention.” *Regen*, Appeal No. 2011-005683, at 4.

In *O'Farrell*, the Board found the term “Java” was a “well-known and widely used term identifying a particular programming language,” and was recognized as such in a technical dictionary relevant to the art. *O'Farrell*, Appeal No. 2011-011075, at 8. Accordingly, the Board concluded that “one of ordinary skill in the relevant art would have understood ‘Java code’ to be written in the particular object-oriented programming language known by that name at the time of Appellant’s invention.” *Id.* In *Dietrich*, the Board held that “[a] review of the Specification and the Honeywell reference of record in this appeal indicates that ‘Custom Algorithm Block’ and ‘CAB’ are used as proper nouns to identify a custom developed function block that is implementable within a Honeywell Experion Application Control Environment.” *Deitrich*, Appeal No. 2015-002477, at 5. In each of these cases, the evidence demonstrated that a person of ordinary skill in the art would have understood the trademark to refer to more than just the source of the goods. Instead, the evidence showed the trademark identified specific goods and their corresponding well-known, identifiable features as of the time of invention.

Here, there is no such evidence that Sugar in the Raw identifies well-known, identifiable features (i.e., particle size distribution) of sugar granules. For example, unlike *Regen*, there is insufficient evidence of Sugar in the Raw conforming to an identifiable, accepted standard at the time of the claimed invention. *Regen*, Appeal No. 2011-005683, at 4. Although Patent Owner argues a specification exists for Sugar in the Raw, the evidence of record suggests it is an internal standard, and the record contains no evidence that a person of ordinary skill in the art would have known what that standard was at the time of the invention.

Instead, Sugar in the Raw identifies only a brand of sugar. There is nothing in the record suggesting what a person of ordinary skill in the art would have understood about the specific particle size of the sugar granules as of the priority date of the '330 patent, based on the trademark alone. Any information about particle size would be derived from inspection and/or testing the product, but the evidence of record shows variability in particle sizes for different packages of Sugar in the Raw.

Particle size is a critical factor for proposed substitute claims 18 and 20, which require a comparison of the particle size of the sugar used in the recited mesh pouch against the particle size of Sugar in the Raw. For all of the reasons discussed above, we find a person of ordinary skill in the art would not have understood that the trademark Sugar in the Raw identifies sugar having particles of a particular size with sufficient specificity to allow the comparison of particle sizes that proposed substitute claims 18 and 20 require. Accordingly, proposed substitute claims 18 and 20 are indefinite because they “fail[] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014); *see* USPTO Memorandum on the Approach to Indefiniteness Under 35 U.S.C. § 112 in AIA Post-Grant Proceedings (Jan. 6, 2021)⁶; MPEP 2173.05(e) (9th ed., Rev. 08.2017, June 2020).

2. Patentability of Proposed Substitute Claims 19 and 21 - Indefiniteness

Proposed substitute claim 19 recites, *inter alia*, a sweet tea brewing product comprising at least one water permeable mesh pouch, tea particles,

⁶ Available at <https://go.usa.gov/xAzHB>.

and sugar, wherein the sugar granules include granules having a size in the range of U.S. mesh sieve nos. 3–35, and “wherein said at least one water permeable mesh pouch includes more of said granules having a size in the range of U.S. mesh sieve nos. 3-35 than present in said total weight of typical grocery store sugar.” Revised MTA, Appendix A at 2. Proposed substitute claim 21 recites a sweet tea brewing product comprising a water permeable mesh pouch having a blend of tea and sugar granules, wherein the sugar granules include granules having a size in the range of U.S. mesh sieve nos. 3–35 and “said sugar granules are more completely and consistently dissolved in comparison to the use of typical grocery store sugar in said at least one water permeable mesh pouch.” Revised MTA, Appendix A at 4.

Petitioner argues that these proposed substitute claims are indefinite because “typical grocery store sugar” has at least three possible meanings. Petitioner first directs us to the Specification, which states: “*Typically, the sugar found in grocery stores and restaurants are of a small particle and are retained in a mesh sieve the size of 45-120.*” Opp. 8 (quoting Ex. 1001, 5:5–10). Petitioner contends a second interpretation could be “any granular sugar product typically sold in grocery stores,” including extra fine granulated (“EFG”) sugar, Sugar in the Raw, and confectioner’s sugar. Opp. 8–9. Finally, Petitioner contends the term could refer to EFG sugar because it is the largest volume of sugar sold in the grocery store. Opp. 9. Petitioner asserts, however, that this interpretation is “divorced from anything in the specifications – EFG sugar is never mentioned.” Opp. 9. Petitioner also argues that testing by Mr. Coffield shows the grain size distribution in EFG sugar can vary widely. Opp. 9 (citing Ex. 1004, at pages 61–63 (Exhibit B)). According to Petitioner, “even if this interpretation

were to be applied, a [person of ordinary skill in the art] would still be left without any informed choice as to which EFG sugars are ‘typical’ and which are not.” Opp. 9. Further, Petitioner contends that “instead of using a numerical standard or some other well-defined parameter, the Patent Owner has chosen to use an intentionally ambiguous term requiring the public to risk infringement by guessing the definition of ‘grocery store sugar’ and also what is ‘typical’ for such sugar.” Opp. 9.

Patent Owner argues EFG is synonymous with “typical grocery store sugar,” and even if there are some differences between various EFG sugars, there is a standard specification and a “typical” analysis. Reply 4 (citing Ex. 2062, Ex. D; Ex. 2003, 24⁷). According to Patent Owner, “not only does a [person of ordinary skill in the art] know what is typical EFG, a [person of ordinary skill in the art] can buy EFG sugar, ensure that it is on spec, and perform tests with it to determine the scope of the claims.” Reply 4.

After considering the evidence of record, we are persuaded by Petitioner’s argument that proposed substitute claims 19 and 21 are indefinite. We agree with Patent Owner that a person of ordinary skill in the art would understand “typical grocery store sugar” to refer to EFG sugar, as the evidence of record supports such a finding. For example, Petitioner’s declarant, Mr. Coffield, testified that EFG is synonymous with grocery store sugar. Ex. 2029, 228:13–229:13.

It is undisputed that EFG sugar contains a distribution of particle sizes ranging from 20–100 mesh, including some particles within the range of 3–

⁷ Patent Owner cites to page 24, but we believe the correct citation is to page 42, as Patent Owner did not include page 24 of the Sucrose Guide as part of Exhibit 2003 and the chart Patent Owner refers to appears on page 42.

35 mesh as recited in the proposed substitute claims. Ex. 2062, Ex. D; Ex. 2003, 42; Ex. 1004, at pages 61–63 (Exhibit B). Evidence presented by Petitioner, however, suggests that the number of particles in EFG sugar falling in the range of U.S. mesh sieve nos. 3–35 can vary based on the brand of sugar. In particular, Petitioner’s declarant Mr. Coffield, tested several different brands of EFG sugar, and reported that the number of particles within 3–35 mesh varies from approximately 24% (Domino brand sugar) to 47% (Publix brand sugar). Ex. 1004, at pages 61–63; Opp. 9. Patent Owner does not contest Mr. Coffield’s test results.

Instead, Patent Owner asserts there is a “standard” specification for EFG sugar. Reply 4. Patent Owner’s standard, however, is a corporate product specification for the ASR Group, which operates under the Domino Sugar brand. Ex. 2062 ¶ 7, Ex. D. There is insufficient evidence on this record that the corporate product specification for the ASR group is a “standard” for all EFG sugar, regardless of brand.

Patent Owner also contends there is a “typical” analysis for EFG sugar, which indicates that between 2–25% of the particles in EFG sugar can have a size in the range of U.S mesh sieve nos. 20–30. Ex. 2003, 42 (showing the “Typical Analysis” for “X-fine” granulated sugar). Even if we were to agree with Patent Owner that this shows a typical analysis for EFG sugar, it still presents a variance of up to 20% for particles having a size in the range of U.S. mesh sieve nos. 20 and 30. Ex. 2003, 42. Thus, the evidence of record suggests that the particle size distribution for EFG sugar, including the number of particles falling in the range of U.S. mesh sieve nos. 3–35, can vary among different EFG sugars. Thus, the term “typical grocery store sugar” “might mean several different things” in terms of the number of

its particles having a size in the range of U.S. mesh sieve nos. 3–35, and “no informed and confident choice is available among the contending definitions.” *HZNP Meds. LLC v. Actavis Labs UT*, 940 F.3d 680, 698 (Fed. Cir. 2019) (quoting *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1371 (Fed. Cir. 2015)); Opp. 9; Reply 4.

Proposed substitute claim 19 requires a comparison of the percentage of sugar granules having a size in the range of U.S. mesh sieve nos. 3–35 in the claimed mesh pouch to the percentage of granules of that size in typical grocery store sugar (i.e., EFG). In order to carry out this comparison and understand the scope of proposed claim 19, a person of ordinary skill in the art would have to know with certainty the percentage of particles in EFG sugar having a size in the range of U.S. mesh sieve nos. 3–35. As shown above, this number will vary based on the brand of EFG tested. Ex. 2003, 42; Ex. 1004, at pages 61–63. As a result, there is a potential for inconsistent results based on which particular EFG sugar product is tested.

Proposed substitute claim 21 compares the dissolution of the claimed beverage brewing product against the dissolution of a product using typical grocery store sugar (i.e., EFG). Patent Owner explains that the size of the particles affects dissolution – namely that larger sugar is more advantageous – in the claimed invention. *See, e.g.*, Revised MTA 3, 6, 16, 23; Reply 2; Ex. 1001, 7:1–14. This suggests that an EFG sugar product having a greater percentage of large particles will dissolve “more completely” as compared to an EFG sugar product having a lower percentage of large particles. As a result, using the dissolution properties of “typical grocery store sugar” as a comparator in the claims is problematic as there is a potential for inconsistent results based on which particular EFG sugar product is used.

As with proposed substitute claim 19, the potential for inconsistent results undermines Patent Owner’s argument that these claims satisfy the definiteness requirement because a person of ordinary skill in the art “can buy EFG sugar . . . and perform tests with it to determine the scope of the claims.” Reply 4.

Particle size is a critical factor for proposed substitute claims 19 and 21, which require, respectively, a comparison of the particle size of the sugar used in the recited mesh pouch against the particle size of typical grocery store sugar, and a comparison of dissolution properties of the sugar used in the recited mesh pouch and typical grocery store sugar. Patent Owner contends “[t]here is an ‘informed and confident’ choice for ‘typical grocery store sugar’ - *EFG sugar*.” Reply 4. The evidence of record, however, shows the number of large particles (3–35 mesh) varies among EFG sugars. Ex. 2003, 42; Ex. 1004, at pages 61–63. In view of this, we find a person of ordinary skill in the art would not have understood “typical grocery store sugar” identifies sugar having particles of a particular size with sufficient specificity to allow the comparisons that proposed substitute claims 19 and 21 require. Accordingly, proposed substitute claims 19 and 21 are indefinite because they “fail[] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus*, 572 U.S. at 901; see USPTO Memorandum on the Approach to Indefiniteness Under 35 U.S.C. § 112 in AIA Post-Grant Proceedings (Jan. 6, 2021); MPEP 2173.05(e).

3. *Patentability of Proposed Substitute Claim 22 – Obviousness*

Petitioner contends proposed substitute claim 22 is unpatentable as obvious in view of Cooper, Thijssen, and “admitted prior art sweetening and dilution practices.” Opp. 24.

a. Cooper (Ex. 1008)

Cooper discloses a system for preparing “high quality tea extract using espresso technology,” and a method of producing “high quality, consistently reproducible tea extracts in a matter of seconds.” Ex. 1008, code (57), 2:36–41. Cooper teaches that one embodiment of its system includes a tea extraction container comprised of a water-permeable material which allows fluid to flow through the body to produce a tea extract from a tea composition retained inside the container. Ex. 1008, 2:42–52, 6:8–12. Cooper also teaches that its tea extract system can include components, such as a sweetener, in addition to the tea composition. Ex. 1008, 3:11–20, 10:31–38. With regard to sweeteners, Cooper states:

A sweetener used in a tea composition of the present invention can be any particle size which readily dissolves into a tea extract produced by the method of the present invention. A sweetener is typically of a particle size provided by a commercial vendor of the sweetener. For example, if the sweetener is sugar, commercial grade granulated sugar may be used.

Ex. 1008, 10:66–11:5.

b. Thijssen (Ex. 1022)

Thijssen “relates, in general, to the solvent extraction of soluble constituents from solid particles.” Ex. 1022, 1:5–6. In particular, Thijssen “pertains to the extraction (leaching) of soluble components from subdivided vegetable and/or animal material by the percolation of a solvent through a porous packed bed of the subdivided particles and, more specifically, the invention is concerned with the water extraction of roasted coffee soluble solids.” Ex. 1022, 1:7–13.

Thijssen states that for purposes of its invention, the term “packed bed” refers to “an operation in which the solid particles are kept in relatively

fixed position with respect to each other while the solvent flows through the porous bed of solid particles, whether or not the bed of solid particles remains stationary with respect to the containing vessel during the extraction.” Ex. 1022, 2:11–18. Thijssen explains channeling, the non-uniform flow of solvent through the bed of solid particles, decreases the efficiency of the extraction operation. Ex. 1022, 2:46–50. Thijssen thus seeks to “enable[] a method of packed bed solid-liquid extraction in which channeling in the packed bed of solid particles is substantially completely eliminated.” Ex. 1022, 3:16–19.

Thijssen further explains that that in conventional systems for extraction of soluble solids from coffee with hot water, “channeling appears to occur more markedly as the mean particle size of the coffee particles for extraction becomes smaller.” Ex. 1022, 5:27–29. Thijssen states that as a result, “the mean particle size of the roast and ground coffee to be extracted generally is between 0.5 – 3.0 millimeters (mm) (35 – 6 U.S. Standard Mesh).” Ex. 1022, 5:29–37.

c. Analysis

Patent Owner offers proposed substitute claim 22 to replace original claim 12. Revised MTA 1. In the Petition, Petitioner argued Cooper anticipates claim 12, and presented evidence in support of its argument. Pet. 41–49. Patent Owner did not submit a Preliminary Response addressing Petitioner’s arguments and evidence. In the Institution Decision, we determined that Petitioner directed us to portions of Cooper that support its argument that Cooper anticipates claim 12. Inst. Dec. 17 (citing Pet. 45–49). Patent Owner did not file a Response addressing Petitioner’s arguments and evidence or the determination in our Institution Decision.

Absent any argument or evidence to the contrary, we maintain the determination in our Institution Decision that Petitioner has directed us to portions of Cooper that support its argument that Cooper anticipates original claim 12. Inst. Dec. 17. As a result, we agree with and adopt Petitioner’s arguments and evidence demonstrating that Cooper anticipates original claim 12. *See* Pet. 31–49.

We thus turn to the subject matter Patent Owner added in proposed substitute claim 22. Claim 22 adds that the water permeable pouch is a mesh pouch, and is “for placement in a container,” and that the sugar granules in the mesh pouch “include about 3 pounds of granules having a size in the range of U.S. mesh sieve nos. 3–35.” Revised MTA, Appendix A at 5.

Petitioner contends that “Cooper teaches every structural feature of claim 22 except using “about 3 pounds of granules having a size in the range of U.S. mesh sieve nos. 3-35.” Opp. 24. Petitioner explains that Cooper teaches a sweet tea brewing product containing tea and added components in a water permeable mesh extraction container (Opp. 17–18 (citing Ex. 1008, col. 5) for use in a brewing basket of a tea making machine (Pet. 34 (citing Ex. 1008, 2:42–54, 10:51–53)). Patent Owner does not dispute that Cooper teaches these limitations. We agree with Petitioner that Cooper teaches a water permeable mesh pouch for placement in a container. As Petitioner points out, Cooper discloses that its extraction container can be any water permeable material, including a mesh (Ex. 1008, 5:39–51) and is generally directed to a product for use in a coffee brewing device (Ex. 1008, Abstract; 2:42–44, 4:25–30 (describing method steps which include placing the tea extraction system into a brewing chamber of a coffee brewing device), 10:51–53).

With regard to the use of “about 3 pounds” of sugar, Petitioner argues that the ’330 patent itself acknowledges that the industry standard is basically one pound of sugar per gallon of tea, and, therefore, “3 pounds merely refers to the standard amount of sugar used to make three gallons of sweetened tea, *i.e.*, the known and typical size for commercial tea brewing.” Opp. 24 (citing Ex. 1001, 1:17–20). Petitioner contends that Cooper teaches its invention “is scalable.” Sur-reply 1–2 (citing Ex. 1008, 11:9–14).

With regard to the size of the sugar, Petitioner directs us to Cooper’s statement regarding the use of a sweetener that can be “any particle size which readily dissolves into a tea extract produced by” Cooper’s invention, and “that if the sweetener is sugar, ‘commercial grade granulated sugar’ may be used.” Opp. 16 (citing Ex. 1008, 10:65–11:5); Sur-reply 1. Petitioner contends it is undisputed that “Standard Granulated” and “Medium Granulated” sugar are commercial grade sugars, and that “Patent Owner takes the position that a [person of ordinary skill in the art] would have known of these sugars and their specifications at the time of filing.” Opp. 18 (citing Ex. 1024, 71; Paper 15, 7–8; Ex. 2062 ¶¶ 8–9, Exhibits A–B; Ex. 2059 ¶¶ 29, 36, 40, Exhibit C; Ex. 2076 ¶ 51). Petitioner further contends that Standard Granulated and Medium Granulated sugar both have size distributions with substantially all particles in the range between U.S. mesh nos. 6 and 35. Opp. 21 (citing Ex. 2076 ¶ 66).

Petitioner also argues that “[i]n scaling up Cooper, a [person of ordinary skill in the art] with knowledge of Thijssen would be motivated to use the same particle size range (U.S. mesh sieve nos. 6-35) identified by Thijssen to reduce channeling and promote extraction since Thijssen teaches those benefits.” Opp. 23–25 (citing Ex. 1023 ¶¶ 58, 104). Additionally,

Petitioner argues that a person of ordinary skill in the art would have had a reasonable expectation of success in combining the teachings of Cooper and Thijssen because both references operate using liquid extraction of soluble solids. Opp. 23. Thus, according to Petitioner, it would have been “obvious to use tea and sugar in a brew basket or container in which all (or nearly all) the tea and sugar is in the range of U.S. mesh sieve nos. 6-35 as taught by Thijssen.” Opp. 24 (citing Ex. 1023 ¶ 115).

In response to Petitioner’s arguments about Cooper, Patent Owner argues that Cooper’s statement regarding “commercial grade granulated sugar” is not “sufficiently specific” for purposes of anticipation, and, therefore, Cooper cannot anticipate the claimed invention. Reply 6. Patent Owner further argues that Cooper teaches away from Petitioner’s proposed combination because Cooper discloses that “micro-contamination of storage tanks and tea dispensers which are commonly used store bulk amounts of a single type of tea for iced tea service is problematic in many restaurants” and that Cooper’s invention “eliminate[s] the need for large tea storage tanks and tea dispensers.” Reply 9 (quoting Ex. 1008, 1:27–32; 2:29–31). Patent Owner contends that Cooper discloses using, at most, 21 grams of sweetener, which is far less than the claimed amount of 3 pounds. Revised MTA 13. Patent Owner also argues that “claiming about 3 lbs. of sugar . . . is more than a ‘mere scaling up.’” Revised MTA 15.

As to Petitioner’s reliance on Thijssen, Patent Owner argues that Thijssen is not analogous art. Reply 7. In particular, Patent Owner contends that Thijssen is not from the same field of endeavor as the ’330 patent because Thijssen is directed to the industrial production of unsweetened instant coffee powder whereas the ’330 patent is directed to brewing

sweetened tea in restaurants. Reply 7. Additionally, Patent Owner contends that Thijssen involves the use of a packed bed, whereas commercial iced tea brewing (ITB) machines do not. Reply 7.

Patent Owner also contends that Thijssen is not reasonably pertinent to the problem the inventors were trying to solve because the inventors were facing the problem of dissolving sugar, not extraction of flavor from tea or coffee. Reply 7–8. According to Patent Owner, “the pertinence of mesh 6–35 coffee particles in a high-pressure, high-heat, packed bed industrial instant coffee powder system, to the problem of sugar dissolution in a restaurant ITB machine, is only evident with improper hindsight.” Reply 8.

Patent Owner also argues that Thijssen is non-enabling. Reply 8. In particular, Patent Owner argues that Thijssen lacks details about how the prior art systems used coffee particles in the 6–35 range. Reply 8. According to Patent Owner, “Thijssen only describes an actual use of particles having a mean size of 1mm, and it is not evident that the full range of particles will work with Thijssen.” Reply 8. Patent Owner also argues “Thijssen’s teaching as to coffee particles frustrates the purpose of the combination and is impossible.” Reply 8. According to Patent Owner, Thijssen teaches compaction, high pressure, and very high heat, and “[r]emoving these features frustrates the purpose of Thijssen and would be impossible to achieve with commercial ITB machines.” Reply 8–9.

Additionally, Patent Owner argues that Thijssen teaches away from the use of particles in the 6–35 mesh range because it discusses the 6–35 mesh range in the context of prior art systems which it improved upon. Reply 9. According to Patent Owner, instead of teaching a wide range of particle sizes, Thijssen teaches towards the use of 1mm coffee particles.

Reply 9. Patent Owner also argues Thijssen teaches away from using ITB machines, because a person of ordinary skill in the art would have read Thijssen as requiring a packed bed and would have known ITB machines cannot maintain a packed bed and do not involve the uniform flow of water. Reply 9.

After considering the parties' respective positions, we find Petitioner has demonstrated sufficiently that the cited art teaches or suggests using "about 3 pounds of granules having a size in the range of U.S. mesh sieve nos. 3–35." Revised MTA, Appendix A at 5. It is undisputed that the industry standard for brewing commercial tea is approximately one pound of sugar per gallon of tea, and that commercial tea brewing machines have a capacity of three gallons. Ex. 1001, 1:17–19; 1:32–33; *see* Revised MTA 10; Opp. 24. These undisputed facts undermine Patent Owner's argument that "claiming about 3 lbs. of sugar . . . is more than a 'mere scaling up.'" Revised MTA 15. In view of the foregoing, we agree with Petitioner that the requirement of including about 3 pounds of sugar granules in proposed substitute claim 22 "merely refers to the standard amount of sugar used to make three gallons of sweetened tea, *i.e.*, the known and typical size for commercial tea brewing." Opp. 24.

We are also persuaded by Petitioner's argument that Cooper is scalable. Sur-reply 1–2. Although Cooper discloses a system and method that can be used to produce single servings of a tea beverage, its teachings are not limited to small serving sizes. Rather, Cooper expressly teaches that "[i]t is within the scope of the present invention . . . that the amounts of ingredients within a given tea composition can be adjusted to provide a tea extraction system which produces two, three, or more servings of tea extract

per tea extraction container.” Ex. 1008, 11:9–14. We thus disagree with Patent Owner’s argument that Cooper teaches away from Petitioner’s proposed combination. We recognize that Cooper discusses the prior art problem of micro-contamination in the bulk storage tanks commonly used in restaurants, as well as Cooper’s statement that it eliminates the need for large tea storage tanks. Ex. 1008, 1:27–32, 2:29–31. These disclosures in Cooper, however, do not “criticize, discredit, or otherwise discourage” the solution presented in the ’330 patent, especially in view of Cooper’s broad statement that its system and method can be used to prepare any number of servings per tea extraction container. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004); Ex. 1008, 11:9–14.

Additionally, Cooper discloses the combination of tea and sweeteners in its pouch, and expressly states that “if the sweetener is sugar, commercial grade granulated sugar may be used.” Ex. 1008, 10:66–11:5. Patent Owner argues that this disclosure lacks sufficient specificity for purposes of anticipation (Reply 6), but Petitioner’s challenge is based on alleged obviousness, not anticipation. It undisputed that as of the filing date of the ’330 patent, a person of ordinary skill in the art would have understood Standard Granulated and Medium Granulated sugar to be commercial grade sugars. Opp. 18; Revised MTA 7–8; Ex. 2062 ¶ 9, Exhibits A–B; Ex. 2059 ¶ 40; Ex. 2076 ¶ 51. Petitioner also directs us to testimony from Patent Owner’s declarant, Mr. Ebersole, that demonstrates a person of ordinary skill in the art would have known that Standard Granulated and Medium Granulated sugar have particles falling within the claimed range of mesh sizes. Ex. 2076 ¶¶ 51, 66; Opp. 21.

In view of the foregoing, we find Petitioner has established sufficiently that the teachings of Cooper, considered in view of admitted prior art sweetening practices, teaches or suggests all of the limitations of proposed substitute claim 22. Not only has Petitioner presented evidence demonstrating that Cooper teaches the use of sugar having particles falling within the range of U.S. mesh sieve nos. 3–35, but Petitioner has also demonstrated that a person of ordinary skill in the art would have had reason to use three pounds of such sugar when brewing commercial-sized batches of tea, with a reasonable expectation of success in doing so, as Cooper allows.

Although we do not consider it necessary, Petitioner also relies on Thijssen in arguing the subject matter of proposed substitute claim 22 would have been obvious. Opp. 24. Thijssen teaches that channeling, defined as the non-uniform flow of solvent through a bed of solid particles, “decreases the efficiency of the extraction operation.” Ex. 1022, 2:47–50. Thijssen states that “[c]hanneling is a major deterrent to efficient packed bed extraction operations and the prior art is replete with theories and possible methods for overcoming or avoiding the problem.” Ex. 1022, 2:61–64. In this regard, Thijssen teaches “channeling appears to occur more markedly as the mean particle size of the coffee particles for extraction becomes smaller,” and, as a result, in conventional extraction systems “the mean particle size of the roast and ground coffee to be extracted generally is between 0.5 – 3.0 millimeters (mm) (35 – 6 U.S. Standard Mesh).” Ex. 1022, 5:27–37. These disclosures support Petitioner’s argument that a person of ordinary skill in the art “with knowledge of Thijssen would be motivated to use the same particle size range (U.S. mesh sieve nos. 6–35)

identified by Thijssen to reduce channeling and promote extraction since Thijssen teaches those benefits.” Opp. 23–25.

We disagree with Patent Owner’s assertion that Thijssen is not analogous art. Reply 7. “A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention.” *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011). “Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.” *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Even if we were to agree with Patent Owner that Thijssen is not from the same field of endeavor because, *inter alia*, it involves the use of a packed bed, we still find Thijssen to be analogous art because it is reasonably pertinent to the problem with which the inventors were involved.

The ’330 patent teaches that “[t]he larger sugar granules allow the water to flow around it at the same time you are extracting tea from the tea blend.” Ex. 1001, 7:15–17. This indicates that among the problems “with which the inventor[s were] involved” were extraction of flavor from tea and the flow of water around the particles involved in the tea brewing process. Thijssen likewise addresses the flow of solvent through solid particles during extraction of a beverage product. *See, e.g.*, Ex. 1022, 2:46–48. In view of this, we find Thijssen is “reasonably pertinent to the particular problem with which the inventor[s were] involved.” *Bigio*, 381 F. 3d at 1325.

As to Patent Owner's arguments regarding Thijssen being non-enabling and frustrating the purpose of the proposed combination, we note that our reviewing court has stated that "[e]ven if a reference discloses an inoperative device, it is prior art for all that it teaches." *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F. 2d 1547, 1551 (Fed. Cir. 1989). For purposes of its obviousness analysis, Petitioner relies on Thijssen's disclosure that using particles within a certain size range provides certain benefits during extraction. Opp. 23. Petitioner does not seek to incorporate Thijssen's entire system or method into Cooper's brewing system or methods, as Patent Owner seems to argue. Nor does Petitioner have to demonstrate that Thijssen's entire system could be incorporated into Cooper's, as "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F. 2d 413, 425 (CCPA 1981).

Finally, Patent Owner's teaching away arguments regarding Thijssen are not well-founded. Reply 9. Proposed substitute claim 22 does not require the tea to be brewed in a commercial ITB machine. This undermines Patent Owner's argument that Thijssen teaches away from using ITB machines because ITB machines cannot maintain a packed bed, as Thijssen purportedly requires. Reply 9. Furthermore, we disagree that Thijssen's disclosure of using 1 mm coffee particles constitutes a teaching away from its disclosure of a broader range of particle sizes used in conventional system, a range that includes 1 mm. Ex. 1023, 5:29–37 (disclosing the use of particle sizes between 0.5 – 3.0 mm corresponding to U.S. mesh 35–6).

We discern nothing in Thijssen as “criticiz[ing], discredit[ing], or otherwise discourage[ing]” the use of particles in the mesh range disclosed as part of the conventional extraction processes. *Fulton*, 391 F. 3d at 1201.

For all of the foregoing reasons, we find Petitioner has demonstrated sufficiently (1) that the combined teachings of Cooper and conventional prior art sweetening practices, either alone or in combination with the teachings of Thijssen, teach or suggest all of the limitations of proposed substitute claim 22, (2) that a person of ordinary skill in the art would have had reason to combine the teachings of these references, and (3) that a person of ordinary skill in the art would have had a reasonable expectation of successfully achieving the claimed invention.⁸ Opp. 15–17, 24–25; Sur-reply 1–2.

d. Objective Evidence of Non-Obviousness

Patent Owner contends that objective evidence supports a finding of non-obviousness of the proposed substitute claims.⁹ Revised MTA 20–25; Reply 10–11. In particular, Patent Owner contends the claimed invention satisfied a long felt but unmet need, achieved significant commercial

⁸ This is not the final determination on obviousness. Our final determination is made below in view of all of the *Graham* factors, including objective indicia of non-obviousness. *See, e.g., WBIP, LLC v. Kohler Co.*, 829 F. 3d 1317, 1328 (Fed. Cir. 2016) (“[T]he strength of *each* of the *Graham* factors must be weighed in every case and must be weighed en route to the final determination of obviousness or non-obviousness.”).

⁹ Patent Owner presents objective indicia of non-obviousness for all of the proposed substitute claims. Our analysis, however, focuses on proposed substitute claim 22 in view of our previous findings that the remaining proposed substitute claims are unpatentable based on grounds other than obviousness.

success, was copied and praised by Petitioner, was the subject of skepticism, and produced unexpected results. Revised MTA 20–24.

According to Patent Owner, restaurants have “long desired ways to reliably and consistently produce sweet tea, and no product sufficiently met this need.” Revised MTA 20–21 (citing Ex. 2001 ¶¶ 18–20; Ex. 2027 ¶ 76; Ex. 2043 ¶¶ 4–6; Ex. 2044, 1:14–48; Ex. 2045, 2:63–3:31; Ex. 2048 ¶ 4; Ex. 2056 ¶¶ 6–9; Ex. 2057 ¶¶ 10–13; Ex. 2065 ¶ 6; Ex. 2077, 135:9–137:9). Patent Owner argues that “a history of patents devoted to attempting to solve the problem is powerful evidence of long felt but unmet need,” and that “[t]he claimed inventions meet this long felt need because they reliably produce sweet tea without the need for complex machinery or manual measuring and agitation of granulated sugar, as performed in the prior art.” Revised MTA 21 (emphasis omitted).

Patent Owner argues that sales of its “Sweet Brew” product demonstrate “significant commercial success,” and that “[w]ith only two competitors, Patent Owner’s market share is high.” Revised MTA 21 (citing Ex. 2028 ¶¶ 44–47; Ex. 2041 ¶¶ 6–9; Ex. 2050 ¶¶ 9–15; Ex. 2053 ¶ 6); *see also* Reply 10 (referring to Adam Stewart’s testimony about the commercial success of the Sweet Brew product). Patent Owner contends that its “sales have been for a product that contains all or substantially all sugar in the 3–35 range” and that it “would not enjoy commercial success without products reading on the claims.” Revised MTA 22 (citing Ex. 2064 ¶¶ 11–33). In this regard, Patent Owner states that “Adam Stewart testified . . . that ‘almost all’ of Patent Owner’s **Sweet Brew** sales fall within the scope of prior claims 13-15 & 17,” and Patent Owner argues that “[b]ecause those percentages claimed larger percentages of specific sizes than within Sugar in the Raw

(see Ex. 2059 at 25), Adam Stewart’s relation of sales to the [original] MTA claims applies equally to the present claims.” Reply 10.

According to Patent Owner, it “experienced skepticism as they began to sell their product, and the market required demonstration that the product *actually worked*.” Revised MTA 23 (citing Ex. 2028 ¶¶ 41–42; Ex. 2056 ¶¶ 7–8; Ex. 2057 ¶ 11).

With regard to copying, Patent Owner contends it had a meeting with Petitioner during which Patent Owner “demonstrated the product and left some for review.” Revised MTA 22. Patent Owner further contends that “[a]dditional products with Petitioner’s tea were prepared and delivered to Petitioner.” Revised MTA 22. According to Patent Owner, Petitioner subsequently “decided to move in another direction” and “slavishly copied” the claimed invention. Revised MTA 22 (quoting Ex. 2028 ¶¶ 25).

Patent Owner asserts that Petitioner praised Patent Owner’s invention based on statements Petitioner made about its own “copycat product.” Revised MTA 22–23 (citing Ex. 2054, Exhibit A). Patent Owner also asserts that others agreed with Petitioner’s praise. Revised MTA 23 (citing Ex. 2042 ¶¶ 6–7; Ex. 2043 ¶ 7).

Patent Owner further argues that its “[t]est results brewing large granule sugar and sugar blend **not only** show that ‘large sugar’ works better than EFG for the claimed weight ranges, **but also** that the large sugar can produce these results *without agitation*.” Revised MTA 23. Petitioner contends these results were unexpected “because it is unexpected for larger sugar to dissolve better, where conventional wisdom is that smaller sugar dissolves more readily and that dissolving requires *agitation*.” Revised MTA 23.

Patent Owner contends it should be entitled to “a nexus *presumption* because the ‘evidence is tied to a specific product and that product embodies the claimed features, and is coextensive with them.’” Revised MTA 24 (quoting *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019)). According to Patent Owner, “its product has relatively few features – it is a mesh bag containing loose tea and sugar” and “the claims directly relate to Patent Owner’s product, which embodies the substitute claims.” Revised MTA 24. Patent Owner further argues that even with no presumption, its evidence of long felt need, commercial success, copying, praise, unexpected results, and skepticism all relate to “large amounts of large sugar inside a mesh bag for use in an ITB machine.” Revised MTA 24–25.

Petitioner argues that Patent Owner sells a variety of products and there is no evidence that they are all covered by the proposed substitute claims. Opp. 25. As a result, Petitioner argues there is no evidence establishing the required nexus between the claimed subject matter and actual products that might be covered by the claims. Opp. 25. Petitioner also contends there is no evidence of copying and challenges Patent Owner’s evidence of long-felt need. Opp. 25.

We first note that in discussing objective indicia of non-obviousness, Patent Owner refers to its “product” or its “**Sweet Brew** product.” Revised MTA 24; Reply 10. Adam Stewart, however, testified that “[m]ost of [Patent Owner’s] sales of its Sweet Brew product have been for products that contain between 1.25 pounds and 3.75 pounds of sugar. Products containing 3 pounds, 2.75 pounds, 2.5 pounds, 1.5 pounds, and 1.25 pounds are the most popular.” Ex. 2064 ¶ 19. This evidence suggests that Patent

Owner sells a variety of Sweet Brew products with varying weights of sugar. Patent Owner, however, does not present evidence tying its objective indicia of non-obviousness to any particular product containing a specific amount of sugar, specified by weight. Notably, proposed substitute claim 22 requires “about 3 pounds” of sugar. Revised MTA, Appendix A at 5. The testimony from Adam Stewart regarding the various products having different amounts of sugar (based on weight) Patent Owner sells undermines its broad statement that that “the claims directly relate to Patent Owner’s product.” Revised MTA 24–25. Although a product containing 3 pounds of sugar is included among those Patent Owner sells, it is not evident how much that specific product contributes to Patent Owner’s purported commercial success or praise, or its ability to purportedly meet a long-felt need. Similarly, we note that proposed substitute claims 13–15 and 17 in Patent Owner’s original Motion to Amend require a total amount of sugar between 1.25 and 3 pounds. MTA, Appendix A. In view of this, we disagree with Patent Owner’s statement that “Adam Stewart’s relation of sales to the [original] MTA claims applies equally to” proposed substitute claim 22, which does not include products with sugar amounts less than “about 3 pounds.” Reply 10; Revised MTA 24–25, Appendix A at 5. Accordingly, we disagree that Patent Owner is entitled to a nexus presumption as to all of its Sweet Brew products with regard to proposed substitute claim 22. *See Fox Factory*, 944 F.3d 1366.

Even if we were to assume a sufficient nexus, we still find Patent Owner’s evidence regarding commercial success to be unpersuasive. Patent Owner provides sales data and contends that its market share is “high.” Revised MTA 21. Generally, sales figures, in the absence of a defined

market, are inadequate to establish commercial success. *Cf. Ex parte Jellá*, 90 USPQ 2d 1009, 1012 (BPAI 2008) (precedential) (“[G]ross sales figures do not show commercial success absent evidence as to market share . . . or as to the time period during which the product was sold, or as to what sales would normally be expected in the market.”). According to the Federal Circuit, “the more probative evidence of commercial success relates to whether the sales represent ‘a substantial quantity in th[e] market.’” *In re Applied Materials, Inc.*, 692 F.3d 1289, 1300 (Fed. Cir. 2012) (quoting *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)). Patent Owner’s statement that its market share is “high” does not help define the relevant market or make clear what it believes to be its portion of the relevant market.

With regard to copying, Patent Owner alleges copying based on the meeting between Patent Owner and Petitioner. Revised MTA 22. “Copying requires duplication of features of the patentee’s work based on access to that work, lest all infringement be mistakenly treated as copying.” *Institut Pasteur & Universite Pierre Et Marie Curie v. Focarino*, 738 F.3d 1337, 1347–48 (Fed. Cir. 2013). “Evidence of copying may include internal documents, direct evidence such as photos of patented features or disassembly of products, or access and similarity to a patented product.” *Liquid, Inc. v. L’Oreal USA, Inc.*, 941 F.3d 1133, 1137 (Fed. Cir. 2019). Patent Owner does not support its assertions of copying with any such evidence, including evidence demonstrating sufficiently the similarity of Petitioner’s product to a product falling within the scope of proposed substitute claim 22.

Nor does Patent Owner support its assertions of praise with sufficient evidence. First, we note one of Patent Owner’s praise arguments relies on

its copying arguments discussed above, and we find it unpersuasive for the same reasons. Patent Owner also argues that “[o]thers agree” with Petitioner’s praise. Revised MTA 22–23 (citing Ex. 2042 ¶¶ 6, 7; Ex. 2043 ¶ 7). Patent Owner fails to present any substantive discussion of the evidence purportedly supporting this statement in the Revised Motion to Amend. Instead, Patent Owner simply directs us to review the exhibits on our own, in violation of our rules on incorporation by reference. 37 C.F.R. § 42.6(3). Nevertheless, our review of the exhibits indicate that they contain complementary statements from Iain Prentice and Stephen H. Pottinger. Ex. 2042; Ex. 2043. These statements, however, do not relate the product to features of proposed substitute claim 22. *Cf. Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1352 (Fed. Cir. 2010) (finding evidence of praise persuasive where the party “presented evidence of praise in the industry that specifically related to features of the patented invention, linking that industry praise with the patented invention”).

As to alleged skepticism, Patent Owner cites only the anecdotal declaration testimony of Adam Stewart (a named inventor and co-owner of Southern Visions) that one of Patent Owner’s customers was concerned that tea produced by the product would not be sufficiently sweet, as well as testimony from two customers expressing skepticism that Patent Owner’s product would consistently produce a consistent sweet brewed tea. Revised MTA 23 (citing Ex. 2028 ¶¶ 41–42; Ex. 2056 ¶¶ 7–8; Ex. 2057 ¶ 11). Even accepting the testimony as accurate, these citations do not relate the product to proposed substitute claim 22.

e. Conclusion Regarding Obviousness of Proposed Substitute Claim 22

We have reviewed Petitioner’s arguments and evidence regarding the purported obviousness of the subject matter of proposed substitute claim 22, and Patent Owner’s responsive arguments and proffered evidence, including evidence of objective indicia. Although we consider some of Patent Owner’s evidence of objective indicia to have some persuasive value, on balance, in view of the strength of the evidence in favor of obviousness for proposed substitute claim 22, and the deficiencies in the evidence relied on as supporting the contended objective indicia of patentability, we determine that Petitioner has established by a preponderance of the evidence that proposed substitute claim 22 is unpatentable as obvious.

III. CONCLUSION

For the reasons discussed above, Petitioner has shown by a preponderance of evidence that the proposed substitute claims 18–22 are unpatentable. The table below summarizes our conclusions as to Patent Owner’s Revised Motion to Amend the claims:

Motion to Amend Outcome	Claim(s)
Original Claims Cancelled by Amendment	1, 6, 10–12
Substitute Claims Proposed in the Amendment	18–22
Substitute Claims: Motion to Amend Granted	
Substitute Claims: Motion to Amend Denied	18–22
Substitute Claims: Not Reached	

IV. ORDER

It is hereby:

ORDERED that Patent Owner's Revised Motion to Amend is *granted* with respect to Patent Owner's request to cancel claims 1, 6, 10, 11, and 12 of the '330 patent;

FURTHER ORDERED that Patent Owner's Revised Motion to Amend is *denied* with respect to Patent Owner's request to enter proposed substitute claims 18–22; and

FURTHER ORDERED that parties to this proceeding seeking judicial review of our decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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Patent 9,468,330 B2

For PETITIONER:

Jamaica Potts Szeliga
Seyfarth Shaw, LLP
jszeliga@seyfarth.com

James M. Robertson
J.M. Robertson, LLC
jrobertson@jmrpatents.com

Marcus R. Chatterton
Balch & Bingham, LLP
mchatterton@balch.com

For PATENT OWNER:

Raymond G. Areaux
J. Matthew Miller III
Carver, Darden, Koretsky, Tessier, Finn,
Blossman & Areaux L.L.C.
areaux@carverdarden.com
miller@carverdarden.com