

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HIRSCH GLASS CORP., d/b/a SPECTRUM QUARTZ,
Petitioner,

v.

CAMBRIA COMPANY LLC,
Patent Owner.

IPR2022-00583
Patent 10,300,626 B2

Before KRISTINA M. KALAN, CHRISTOPHER M. KAISER, and
AVELYN M. ROSS, *Administrative Patent Judges*.

KALAN, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Hirsch Glass Corp., d/b/a Spectrum Quartz (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–20 of U.S. Patent No. 10,300,626 B2 (Ex. 1023, “the ’626 patent”). Cambria Company LLC (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

To institute *inter partes* review, we must determine that the information presented in the Petition shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons discussed below, after considering the parties’ submissions and the evidence of record, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to at least one claim of the ’626 patent, and we do not institute *inter partes* review.

A. *Related Proceedings*

The parties identify the following district court litigation as a related matter: *Cambria Company LLC v. Hirsch Glass Corp.*, No. 3:21-CV-10092 (D.N.J). Pet. 3; Paper 4, 1 (Patent Owner’s Mandatory Notices).

The parties also state that Petitioner has filed petitions regarding other patents held by Patent Owner: IPR2022-00582 regarding U.S. Pat. No. 9,718,303 and IPR2022-00589 regarding U.S. Pat. No. 9,993,942. Pet. 2; Paper 4, 1.

B. *Real Party-in-Interest*

Petitioner identifies Hirsch Glass Corp. as the real party in-interest. Pet. 2. Patent Owner states that the real party-in-interest is Cambria Company LLC. Paper 4, 1.

C. The '626 Patent

The '626 patent, titled “Synthetic Molded Slabs, and Systems and Methods Related Thereto,” is directed to “systems and processes for forming improved synthetic molded slabs suitable for use in living or working spaces.” Ex. 1023, codes (54), (57). The processed slab emulates the appearance of a quarried stone slab due in part to use of differently colored mineral mixes dispensed according to predefined patterns. *Id.* at 3:8–14.

The dispensation process “can provide a layering effect that emulates the veined appearance of quarried stone slabs such as granite or marble,” and includes some veins that extend partly or fully across length L of the slab. *Id.* at 4:32–42. The veins can also extend through the thickness of the slab to provide a natural vein appearance even when the slab is cut and edged to specific shapes. *Id.* at 4:44–48. Figure 1A is reproduced below.

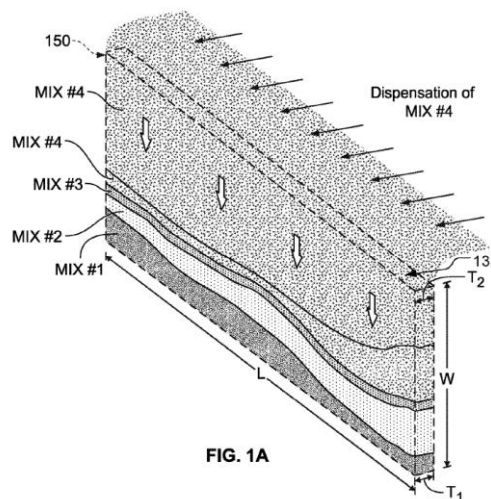


Figure 1A is a perspective view of a synthetic molded slab during and after formation. *Id.* at 3:48–49. Figure 1A shows a space (depicted by dashed lines) partially defined by a mold, which is secured by apparatus 150 (not shown), for receiving different particulate mineral mixes (i.e. Mix #1–Mix #4) through upwardly facing opening 132 of the mold. *Id.* at 3:34–40, 4:59–63; 6:64–65. The “mold 130 can be vertically oriented during the

dispensation of the different particulate mineral mixes into the mold 130.”
Id. at 4:57–58. Figure 1 shows mold 130 is at least partially defined by length L and width W along with thicknesses T_1 at a lower edge and T_2 at upper opening 132. *Id.* at 6:1–3, 6:25–26.

Figure 7 is reproduced below.

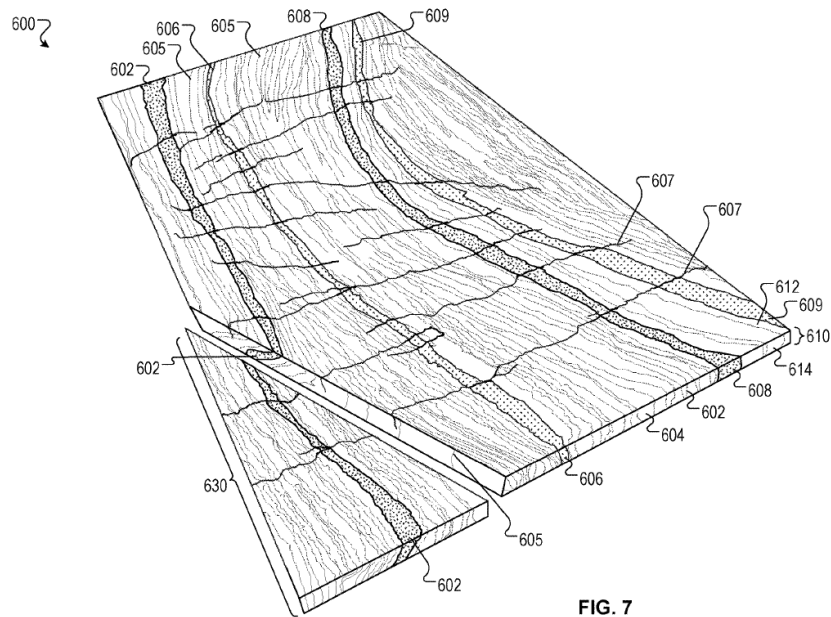


FIG. 7

Figure 7 is a perspective view of an example synthetic molded slab product. *Id.* at 3:65–66. Synthetic molded slab product 600 includes major surface 612 having “veins 602, 606, and 608 that extend fully across a complete length of the hardened slab 600.” *Id.* at 11:17–18. Differently pigmented veins such as 602 and 605 can extend across the slab product, and also can extend through thickness 610 of slab 600 from first major face 612 to opposing major face 614 to provide a natural vein appearance even when the slab is cut and edged to specific shapes. *Id.* at 11:24–29. For example, when section 630 is cut away from synthetic molded slab product 600, with “veins 602 and 605 extending into the interior 606 and/or across the thickness 610, cutting and/or processing of the synthetic molded slab

product 600 shows the veins 602, 605, 606, 608, and 609 in a manner that emulates the aesthetics of quarried stone slabs.” *Id.* at 11:52–57. Veins 607 are oriented in a transverse direction relative to veins 602, 605, 606, 608 and 609. *Id.* at 11:32–34.

D. Illustrative Claim

Claim 1 is reproduced below.

1. A processed slab comprising a quartz material, comprising: a major surface at least 2 feet wide by at least 6 feet long and extending perpendicularly to a slab thickness, the major surface having a first substantially bowed pigmented vein that extends generally lengthwise from edge-to-edge, wherein the first substantially bowed pigmented vein has a vein thickness equal to and parallel to the slab thickness, wherein the slab comprises at least two different particulate mineral mixes distributed in a series of successive layers according to a predefined pattern, a first of the two different particulate mineral mixes defining the first substantially bowed pigmented vein, and wherein the first particulate mineral mix occupies the entire slab thickness at a first region that defines the first substantially bowed pigmented vein and a second of the two different particulate mineral mixes occupies the entire slab thickness at a second region, the first particulate mineral mix being absent from the second region and the second particulate mineral mix being absent from the first region.

Ex. 1023, 12:44–64.

E. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–20 would have been unpatentable on the following grounds:

Claims Challenged	35 U.S.C. § ¹	References/Basis
1, 5–19	§ 103	Bigi, ² Benito Lopez ³
2–4, 20	§ 103	Bigi, Benito Lopez, Toncelli ⁴

In support of its unpatentability arguments, Petitioner relies on the declaration of Pierpaolo Tassone (Ex. 1032).

II. ANALYSIS

A. Claim Construction

We apply the claim construction standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). 37 C.F.R. § 42.100(b) (2021). Under *Phillips*, claim terms are afforded “their ordinary and customary meaning.” *Phillips*, 415 F.3d at 1312. The “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms ... that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Petitioner states that “no terms require express construction.” Pet. 11. Patent Owner states that for “purposes of this Preliminary Response only,

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103. Because the ’626 patent has an effective filing date after the effective date of the applicable AIA amendments, we refer to the AIA version of § 103.

² WO 2005/097447 A2, published October 20, 2005 (Ex. 1025).

³ US 2015/0360507 A1, published December 17, 2015 (Ex. 1005).

⁴ US 2004/0032044 A1, published February 19, 2004 (Ex. 1011).

Patent Owner does not contend that any claim construction is necessary.”

Prelim. Resp. 18. On this record, we determine that no claim terms require express construction.

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art would have an educational background, such as a bachelor’s of science degree, in chemistry, chemical engineering and/or material science or a related field, as well as some understanding of mechanics or manufacturing. Additionally, a POSITA would have at least two to four years of practical experience in manufacturing or designing composite materials, such as engineered stone or ceramic tiles. Additional practical or work experience can result in a lower level of education being necessary, and vice versa.

Pet. 10 (citing Ex. 1032 ¶ 45).

Patent Owner does not expressly dispute the Petition’s definition of level of ordinary skill. *See generally* Prelim. Resp. Accordingly, for the purposes of this Decision, we adopt Petitioner’s proposal regarding the level of one of ordinary skill in the art with the exception of the open-ended phrase “at least,” which expands the range of experience indefinitely without an upper bound. The level of ordinary skill in the art is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Asserted Prior Art

1. Bigi (Ex. 1025)

Bigi is a PCT patent publication directed to “apparatuses and methods for obtaining decorated products, in particular ceramic products provided

with an ornamental pattern.” Ex. 1025, 1:2–4.⁵ Bigi’s ornamental patterns may have “particular patterns, such as veining, streaks or blotches, for example imitating natural stone.” *Id.* at 1:12–14. Figure 2, reproduced below, shows “a partially sectioned schematic perspective view of a decorating apparatus.” *Id.* at 6:4–5.

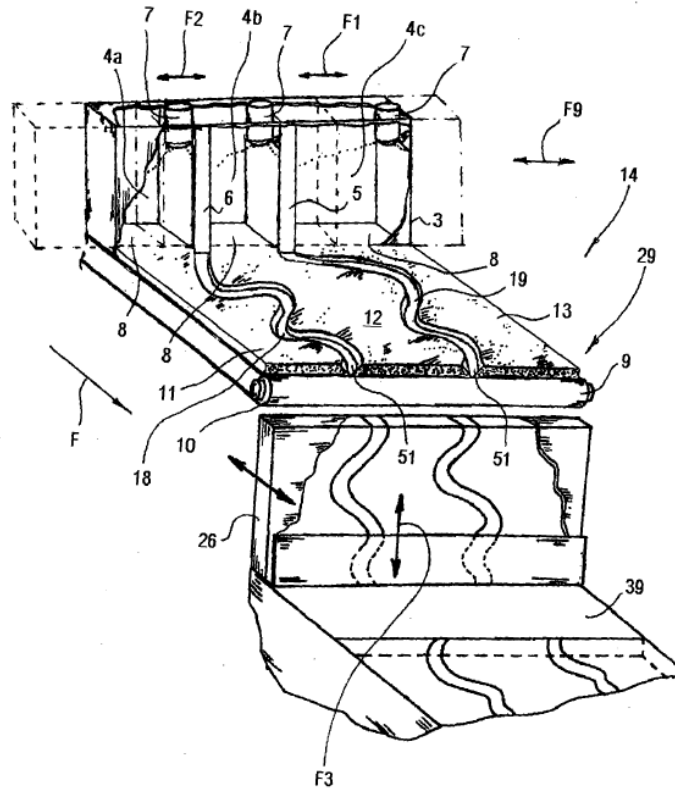


Fig. 2

As shown in Figure 2, first partition 5 and second partition 6 “cooperate with the peripheral walls 3 to define a plurality of compartments 4,” comprising compartments 4a, 4b, and 4c “arranged adjacent one another.” *Id.* at 7:3–7. Further, each “compartment 4

⁵ Although Exhibit 1025 includes exhibit page numbers added by Petitioner at the bottom of each page, we cite to the page numbers at the top of the page for consistency with citations in the Petition.

comprises a supply opening 7, through which a ceramic material having a certain degree of flowability is introduced,” and “a discharge opening 8, through which the material contained inside the compartment 4 exits from the hopper 2.” *Id.* at 7:8–12. Bigi describes that the ceramic materials dispensed into each compartment 4 “may have different colours and/or different granulometry.” *Id.* at 7:23–24. Still further, the decorating apparatus has driving means “arranged to move the first partition 5 and the second partition 6 in relation to the peripheral walls 3, during the delivery of the ceramic materials 29, as shown respectively by the arrow F1 and by the arrow F2” and by the arrow F9. *Id.* at 7:25–29, 9:21–22. The “conveyor belt 10 is made to advance in the direction shown by the arrow F,” and “the ceramic materials 29 are transferred through the discharge openings 8 from the hopper 2 to the conveyor belt 9.” *Id.* at 8:4–7.

According to Bigi, the resultant “soft cushion 14 is decorated by an ornamental pattern comprising veining.” *Id.* at 9:13–14. Soft cushion 14 includes first zone 11, second zone 12, and third zone 13, each comprising clearly identifiable and distinct ceramic material of different colors. *Id.* at 8:11–17. Figure 2 shows that zone 18 is interposed between first zone 11 and second zone 12; zone 19 is interposed between second zone 12 and third zone 13. *Id.* at 8:36–9:1. Zones 18 and 19 do not contain any of ceramic materials 29 contained in compartments 4, and zones 18 and 19 define a pair of curvilinear grooves 51 in soft cushion 14. *Id.* at 9:2–6. Bigi discloses that “the apparatus may comprise distributing means . . . which pour into the grooves 51 further ceramic materials having, for example, a color that is different again from that of the ceramic materials that constitute the first zone 11, the second zone 12 and the third zone 13.” *Id.* at 9:7–12. Further,

“soft cushion 14 can be transferred from the conveyor belt 9 into feeding means 26,” which may include shutters vertically movable in the direction of arrows F3. *Id.* at 10:26–27, 14:10–12. Ceramic materials 29 can exit towards transfer surface 39 arranged to transfer ceramic materials 29 to a compacting device. *Id.* at 24:7–10.

2. *Benito Lopez (Ex. 1005)*

Benito Lopez is titled “Stratified and Agglomerated Artificial Stone Article” and relates to articles that include agglomerated artificial stone and polymerisable resin, used as construction material, with veins that provide an aesthetic effect similar to natural stone products. Ex. 1005, codes (54), (57). An exemplary slab is depicted in Figure 2, reproduced below.

FIG.2

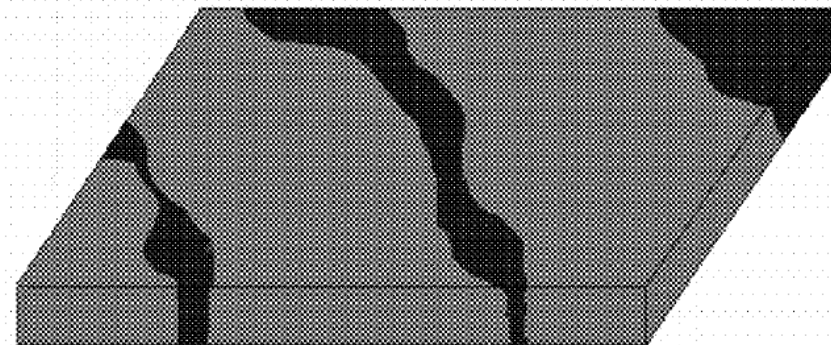


Figure 2 represents the effect achieved in the final product from the distribution of the strati. *Id.* ¶ 43. According to Benito Lopez, the slab has “a stratified effect existing in all of its dimensions where the strati (which can be considered as big size veins) have a width and length of greater dimensions than the products existing in the state of the art.” *Id.* ¶ 85.

3. *Toncelli (Ex. 1011)*

Toncelli “relates to the manufacture of stone conglomerate products, in particular slabs with a veined effect” made of “a granulate, preferably natural stone material, and a binder, consisting of a cement or synthetic resin.” Ex. 1011 ¶¶ 1–2. A mix is poured into a rubber mold and the layer of mixture is subjected to vibrocompaction. *Id.* ¶¶ 3–4. Toncelli discloses that it is desirable to provide the surface of the slab with a “veined” effect so that the surface “resembles even more closely the natural stone material.” *Id.* ¶ 9. Toncelli’s process includes, after the formation of a non-colored layer of mix on a temporary support or tray mold, a step “involving the formation of irregular grooves or roughness, which causes the distribution of the dye also to become even more irregular and random.” *Id.* ¶ 36.

D. Asserted Obviousness Grounds

Petitioner argues that Bigi and Benito Lopez would have rendered obvious claims 1 and 5–19. Pet. 23–62 (Ground 1). Petitioner also argues that Bigi, Benito Lopez, and Toncelli would have rendered obvious claims 2–4 and 20. *Id.* at 62–71 (Ground 2)).

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon). Petitioner cannot

satisfy its burden of proving obviousness by employing “mere conclusory statements,” but “must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when presented, objective evidence of nonobviousness, i.e., secondary considerations.⁶ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Subsumed within the *Graham* factors are the requirements that all claim limitations be found in the prior art references and that the skilled artisan would have had a reasonable expectation of success in combining the prior art references to achieve the claimed invention. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007). Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated

⁶ At this stage, the parties do not present any objective evidence of nonobviousness as to any of the challenged claims.

reasoning with some rational underpinning to support the legal conclusion of obviousness’’)).

1. *Ground 1*

a. *Petitioner’s Arguments*

Petitioner asserts that its Ground 1 obviousness arguments propose “the use of *Benito Lopez*’s materials (i.e., quartz, resin binder, and colouring agent) and methods in combination with the designs and distribution of materials taught by *Bigi*.” Pet. 23. Petitioner argues that *Bigi* and *Benito Lopez* are analogous art. *Id.* at 24–25 (citing Ex. 1032 ¶¶ 129–30). Petitioner also argues that “because both *Benito Lopez* and *Bigi* teach methods for making a processed slab that mimics the veining pattern of natural stone slabs like marble,” one of ordinary skill in the art “would have been motivated to combine the teachings of these references as a part of his or her efforts to continue to develop processed quartz slabs that provide the appearance of natural stone slabs.” *Id.* at 25 (citing Ex. 1032 ¶¶ 140–143). Petitioner further asserts that the “motivation would have come from, *inter alia*, market pressures to create processed slabs that realistically mimic veining patterns seen in natural stone.” *Id.*

Petitioner asserts that every element of claim 1 is found in the combination of *Bigi* and *Benito Lopez*, as follows:

[1.a.] A processed slab comprising a quartz material, comprising: (Pet. 25–26 (relying on Ex. 1025, 4:15–19; Ex. 1032 ¶¶ 145–146; Ex. 1005 ¶¶ 27, 48));⁷

[1.b.] a major surface at least 2 feet wide by at least 6 feet long and extending perpendicularly to a slab thickness, (Pet. 26–29 (relying on

⁷ We express no opinion on whether the preamble is limiting.

Ex. 1005 ¶ 24, Fig. 2; Ex. 1032 ¶¶ 147–154)). Petitioner also asserts that the “claimed dimensions of 2 feet wide by at least 6 feet long would have been obvious to the POSITA” and “this limitation recites nothing more than an obvious design choice.” *Id.* at 27–29 (citing Ex. 1032 ¶¶ 151–153);

[1.c.] the major surface having a first substantially bowed pigmented vein that extends generally lengthwise from edge-to-edge, (Pet. 29–32 (relying on Ex. 1025, Fig. 2, 3:19–29, 9:4–12; Ex. 1032 ¶¶ 156–160, 165, 182; Ex. 1005 ¶¶ 31, 77, 85)). Petitioner also argues that one of ordinary skill in the art “would have found it obvious to apply the design teachings of[] *Bigi* in this regard—namely, the veins that extend lengthwise through the slab also extend through the full thickness of the slab—to the *Benito Lopez* disclosure . . . because *Bigi* describes a desirable aesthetic design choice.” *Id.* at 31 (citing Ex. 1032 ¶¶ 158–159, 165; Ex. 1005 ¶¶ 31, 77, 85 (Benito Lopez accommodating many different designs with the “goal of matching the appearance of natural stone”));

[1.d.] wherein the first substantially bowed pigmented vein has a vein thickness equal to and parallel to the slab thickness, (Pet. 32–33 (relying on Ex. 1025, 3:23–29, 4:15–19; Ex. 1032 ¶¶ 162, 164–166; Ex. 1005, Fig. 2, ¶¶ 31, 77, 85)). Petitioner also argues that one of ordinary skill in the art “would have found it obvious to apply the design teachings of[] *Bigi* in this regard—namely, the veins that extend lengthwise through the slab also extend through the full thickness of the slab—to the *Benito Lopez* disclosure . . . because *Bigi* describes a desirable aesthetic design choice.” *Id.* at 33;

[1.e.] wherein the slab comprises at least two different particulate mineral mixes distributed in a series of successive layers according to a

predefined pattern, (Pet. 33–36 (relying on Ex. 1024, 81; Ex. 1032 ¶¶ 158, 167–183; Ex. 1025, 3:30–37, 4:1–6, 4:20–29, 5:1–4, 9:4–12; Ex. 1005, Fig. 2, ¶¶ 30–32, 68)). Petitioner also argues that it “would have been obvious to use the process of *Benito Lopez* to make the design shown in *Bigi*.” *Id.* at 36 (citing Ex. 1032 ¶ 183);

[1.f.] a first of the two different particulate mineral mixes defining the first substantially bowed pigmented vein, and (Pet. 37–38 (relying on Ex. 1025, 4:10–14, 8:34–9:3, 9:4–12; Ex. 1032 ¶¶ 184–188; Ex. 1005 ¶ 74));

[1.g.] wherein the first particulate mineral mix occupies the entire slab thickness at a first region that defines the first substantially bowed pigmented vein and a second of the two different particulate mineral mixes occupies the entire slab thickness at a second region, (Pet. 38–41 (relying on Ex. 1025, Fig. 2, 4:15–19, 8:34–9:3, 9:7–12; Ex. 1032 ¶¶ 189–195; Ex. 1005, Fig. 2, ¶¶ 31, 77, 85)). Petitioner also argues that one of ordinary skill in the art “would have found it obvious to apply the design teachings of[] *Bigi* in this regard—namely, the veins that extend lengthwise through the slab also extend through the full thickness of the slab—to the *Benito Lopez* disclosure . . . because *Bigi* describes a desirable aesthetic design choice.” *Id.* at 41;

[1.h.] the first particulate mineral mix being absent from the second region and the second particulate mineral mix being absent from the first region. Pet. 41–42 (relying on Ex. 1025, 4:10–14, 8:34–9:3, 9:7–12; Ex. 1032 ¶¶ 197–201; Ex. 1005 ¶ 74).

b. Patent Owner’s Arguments

Patent Owner presents “multiple independent reasons” that the Petition should be denied:

(a) the Petition fails to show a motivation to combine Bigi and Benito Lopez as required for each ground and all challenged claims; (b) the Petition fails to identify the alleged differences between the prior art and the claims as required under *Graham*; (c) the Petition fails to identify any teaching of the claimed vein that extends generally lengthwise from edge-to-edge; (d) the Petition fails to identify any teaching of the dimensions required by every challenged claim; (e) the Petition fails to identify a reason to select quartz as required by every challenged claim; and (f) the Petition fails to show a reasonable expectation of success in combining the teachings of Bigi and Benito Lopez.

Prelim. Resp. 20–21.

More particularly, with respect to its argument (a), Patent Owner argues that Petitioner fails to show a motivation to combine. *Id.* at 21. Patent Owner argues that the “Petitioner’s purported analysis on motivation to combine is devoted to arguing that Bigi and Benito Lopez are analogous art to the ’626 patent,” but that this is insufficient to meet Petitioner’s burden. *Id.* at 21–22 (citing Pet. 23–25). Patent Owner also argues that a “generic motivation to improve the prior art is legally insufficient for obviousness,” criticizing Petitioner’s reasoning that “a skilled artisan would have been motivated ‘to develop processed quartz slabs that provide the appearance of natural stone slabs’ stemming from “*inter alia*, market pressures to create processed slabs that realistically mimic veining patterns seen in natural stone,” as failing to explain “*why* or *how* combining or modifying Benito Lopez or Bigi would achieve this goal, which is fatal to the Petition.” *Id.* at 23–24 (citing Pet. 25). Patent Owner also asserts that Petitioner admits that both Bigi and Benito Lopez already achieve the “generic motivation to ‘provide the appearance of natural stone slabs.’” *Id.* at 25 (citing Pet. 25; Ex. 1025, 10:9; Ex. 1005 ¶ 4). Finally, Patent Owner

argues that the Petition fails to account for the contradictory goals and approaches of Bigi and Benito Lopez, namely, that Bigi discloses making fine veins with a limited width, whereas Benito Lopez seeks to make wider veins, and that Petitioner fails to analyze why one of ordinary skill in the art would have “plucked” either Bigi or Benito Lopez “out of the sea of prior art.” *Id.* at 26–28 (citing *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1337 (Fed. Cir. 2016)).

With respect to its argument (b), Patent Owner argues that Petitioner fails to identify differences between the claims and the prior art or any modifications to the cited references. *Id.* at 29. More particularly, Patent Owner contends that “it is unclear whether Petitioner is proposing that a skilled artisan would select Benito Lopez and modify some aspect of that reference in view of Bigi or the other way around.” *Id.* at 30 (citing Pet. 23). Thus, Patent Owner argues, by “failing to identify a primary reference or any modifications to be made in light of either reference, the Petition fails to identify the proposed grounds for review ‘with particularity’ as required by 35 U.S.C. § 312(a)(3).” *Id.*

c. Analysis

Regarding Patent Owner’s argument (a) having to do with failure of motivation to combine, Patent Owner contends that Petitioner’s stated motivation—that is, to make a processed slab that mimics the veining pattern of natural stone slabs—is “generic,” conclusory, and lacks “reasoning with some rational underpinning.” Prelim. Resp. 23. Patent Owner alleges that the “Federal Circuit has rejected nearly identical motivations that a skilled artisan would have ‘wanted to build something better’ and ‘more attractive to [] customers’ as ‘generic and bear[ing] no

relation to any specific combination of prior art elements.”” *Id.* at 23–24 (quoting *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012)).

We agree with Patent Owner that Petitioner’s rationale for combining Benito Lopez and Bigi is insufficient and fails to provide the necessary factual support. In making a determination of obviousness, it is not enough that each claimed limitation be found in one or more prior art references. *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000) (explaining that obviousness “cannot be predicated on the mere identification . . . of individual components of claimed limitations”). Instead, Petitioner must also show that the skilled artisan would have had a reason to combine each of the prior art references to achieve the claimed subject matter and a reasonable expectation of success in making the combination. *PAR Pharm., Inc. v. TWi Pharm., Inc.*, 773 F.3d 1186, 1193 (Fed. Cir. 2014). A generic reason to combine references fails to “explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does.*” *ActiveVideo*, 694 F.3d at 1328; *see also Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 381 F.3d 1371, 1377 (2004) (explaining that “[r]ecognition of a need does not render obvious the achievement that meets that need” because “[t]here is an important distinction between the general motivation to cure an uncured disease . . . and the motivation to create a particular cure.”).

Here, Petitioner combines the materials and methods of Benito Lopez with the specific design of Bigi and reasons that “the person of ordinary skill in the art would have been motivated to combine the teachings of these references as part of his or her efforts to continue to develop processed

quartz slabs that provide the appearance of natural stone slabs.” Pet. 25 (citing Ex. 1032 ¶¶ 140–143) *see also id.* at 23 (citing Ex. 1032 ¶ 138), 33 (citing Ex. 1032 ¶ 165) (describing a “desirable aesthetic design choice” and a “goal of matching the appearance of natural stone”). According to Petitioner, this “motivation would have come from, *inter alia*, market pressures to create processed slabs that realistically mimic veining patterns seen in natural stone.” Pet. 25 (citing Ex. 1032 ¶¶ 140–143). Petitioner’s proffered reason to modify Benito Lopez with Bigi, however, merely addresses a *generalized desire* in the industry to improve the aesthetic quality of engineered stone slabs and does not provide a reason to adopt Bigi’s design. *Cardiac Pacemakers*, 381 F.3d at 1377. Petitioner fails to direct our attention to any record evidence that suggests the specific veining configuration described in Bigi improves the overall aesthetics of the engineered slab beyond that described in Benito Lopez. Rather, the record evidence shows that each of Benito Lopez and Bigi product artificial stone products that mimic the veining patterns of natural stone. Pet. 12, 17–18; Prelim. Resp. 25 (“As Petitioner admits, both Benito Lopez and Bigi disclose products that allegedly ‘mimic[] the veining pattern of natural stone slabs like marble.’”); *see also* Ex. 1025, 1:11–13 (describing ornamental patterns that include “veining, streaks or blotches, for example imitating natural stone”), 10:9 (Bigi stating that it achieves “a high-quality ornamental pattern”); Ex. 1005 ¶ 4 (Benito Lopez stating that it achieves “an aesthetic look similar to natural stone . . . surpassing the existing technical limitation”). The mere fact that Benito Lopez and Bigi share a common goal of producing products that mimic natural stone fails to identify what *would*

have prompted the skilled artisan to arrive at the combination in the first place.

Petitioner also relies on the testimony of Mr. Tassone, but Mr. Tassone's testimony similarly falls short. *See* Ex. 1032 ¶¶ 140–143. Mr. Tassone's testimony is entitled to little weight because it fails to explain how the alleged market pressures or commercial need would motivate one of ordinary skill in the art to make the proposed combination, and it is not otherwise apparent that it does. *See* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”); *see also Velandier v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) (“It is within the discretion of the trier of fact to give each item of evidence such weight as it feels appropriate.”); *cf. Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985) (“Lack of factual support for expert opinion going to factual determinations, however, may render the testimony of little probative value in a validity determination.”).

As a result, Petitioner's reason to combine is generic, untethered from the modification being made, and, therefore, is insufficient to support a determination of obviousness.

Regarding Patent Owner's argument (b), that Petitioner fails to identify differences between the claims and the prior art or any modifications to the cited references (Prelim. Resp. 29), we agree that the Petition is insufficiently clear.

According to 35 U.S.C. § 312(a)(3), a petition for *inter partes* review must identify, “in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that

supports the grounds for the challenge to each claim.” According to 37 C.F.R. § 42.104(b)(4), a petition for *inter partes* review must identify how “the construed claim is unpatentable under the statutory grounds” on which the petitioner challenges the claims, and “must specify where each element of the claim is found in the prior art patents or printed publications relied upon.” Rule 42.104(b)(5) adds that the Petition must identify “specific portions of the evidence that support the challenge.” Similarly, Rule 42.22(a)(2) states that each petition must include “[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent.” The Patent Trial Practice Guide suggests that “parties should avoid submitting a repository of all the information that a judge could possibly consider, and instead focus on concise, well-organized, easy-to-follow arguments supported by readily identifiable evidence of record.” Patent Trial and Appeal Board Consolidated Trial Practice Guide 39, *available at* <https://www.uspto.gov/TrialPracticeGuideConsolidated> (Nov. 14, 2019).

Here, Petitioner’s approach of arguing that every limitation in claim 1 can be satisfied by both Benito Lopez and/or Bigi, or possibly the combination of the two, fails to identify with sufficient specificity the portions of Benito Lopez or Bigi or the combination that Petitioner relies on to meet each limitation of claim 1. Although arguing in the alternative is generally permissible, in this case, both the Petition and Mr. Tassone fail to explain in adequate detail which, why or how the identified elements of Benito Lopez or Bigi, or their prospective combination, meet the limitations of claim 1. In each subsection discussing limitations [1.a.]–[1.g.], Petitioner

relies on both Bigi and Benito Lopez, seemingly individually. Pet. 25–42. At the conclusion of the subsections discussing limitations [1.b.], [1.c.], [1.d.], [1.e.], [1.f], and [1.g.], Petitioner asserts: “Thus, *Bigi* and *Benito Lopez* render obvious this limitation.” *Id.* at 29, 32, 33, 36, 38, 41. This leaves it unclear whether Petitioner intends to rely on both Benito Lopez or Bigi or possibly the combination of the two.

Even for limitation [1.e.] (in which the slab comprises at least two different particulate mineral mixes distributed in a series of successive layers according to a predefined pattern), for which Petitioner argues that it “would have been obvious to use the process of *Benito Lopez* to make the design shown in *Bigi*” (Pet. 36), Petitioner muddies the waters by saying that both “*Bigi* and *Benito Lopez* also teach the distribution of mixes according to a predefined pattern” and then apparently relying on the process of Bigi as well as the process of Benito Lopez. Pet. 34–35. Specifically, Petitioner alleges that Bigi teaches “an apparatus with ‘distributing means . . . arranged to deliver said ceramic materials according to a desired sequence’” and “also teaches that another aspect of its invention is a method of pouring ceramic materials inside containers” in which “its materials are distributed inside a container” to be “transferred to a transfer surface.” *Id.* at 35 Petitioner then alleges that Benito Lopez describes producing veins of a predetermined pattern where “step d) of its method, the ‘download’ of different strati to the mold ‘implies the ordered placing of the different strati in an independent manner and depending on the final design that is to be achieved.’” *Id.* at 36. Neither the Petition nor Mr. Tassone explains how this identified method of Bigi could be used in the method of Benito Lopez, which further confuses the discussion of limitation [1.e.] in which Petitioner purportedly relies on

Benito Lopez for the process and Bigi for the design. *Id.* at 36. Thus, we are not able to determine, based on the information advanced in the Petition, what Petitioner relies on to meet limitation [1.e.]. Pet. 33–36.

This lack of specificity is compounded by Petitioner’s lack of clarity about whether the limitations of claim 1 could be satisfied by any of (1) Bigi alone, (2) Benito Lopez alone, or (3) the combination of Bigi and Benito Lopez, or what that combination would entail. Presumably, the Petition’s assertion that “Ground 1 proposes the use of *Benito Lopez*’s materials (i.e., quartz, resin binder, and colouring agent) and methods in combination with the designs and distribution of materials taught by *Bigi*” (Pet. 23) sets forth Petitioner’s position, but the remainder of Ground 1 does not clearly support this position, nor does it explicitly exclude a scenario in which either Bigi or Benito Lopez or a combination discloses any given limitation. Mr. Tassone’s testimony, which largely mirrors the Petition, does not add any clarity. *See* Ex. 1032 ¶¶ 129–201.

The layering of one alternative argument on top of another alternative argument, without sufficient explanation of how the alternatives interrelate, obscures what exactly Petitioner is relying on as disclosing the limitations of claim 1. In addition, this approach improperly shifts the burden of deciphering Petitioner’s arguments onto Patent Owner and the Board, which is contrary to the statutory and regulatory provisions governing *inter partes* review proceedings discussed above. To hold otherwise would require us to “play archaeologist with the record,” which we decline to do. *DeSilva v. DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999).

In view of these deficiencies, we agree that “it is unclear whether Petitioner is proposing that a skilled artisan would select Benito Lopez and

modify some aspect of that reference in view of Bigi or the other way around” and that by “failing to identify a primary reference or any modifications to be made in light of either reference, the Petition fails to identify the proposed grounds for review ‘with particularity’ as required by 35 U.S.C. § 312(a)(3)” with respect to the limitations of independent claim 1, the similar arguments presented for independent claim 15, and the dependent claims. Prelim. Resp. 30.

d. Remaining Claims 5–19

Petitioner presents no arguments or evidence with respect to claims 5–19 that would remedy the defects noted above with respect to independent claim 1. *See generally* Pet. Thus, Petitioner has failed to demonstrate a likelihood that the subject matter of claims 5–19 would have been obvious over the combined disclosures of Bigi and Benito Lopez.

2. Ground 2

Petitioner alleges that the combination of Bigi, Benito Lopez, and Toncelli would have rendered obvious claims 2–4 and 20. Pet. 62–71. More particularly, Petitioner argues that Toncelli suggests the added subject matter of these dependent claims. *See id.* Patent Owner does not challenge Petitioner’s allegations as to dependent claims 2–4 and 20, but rather rests on the same arguments discussed above for independent claims 1 and 15. *See generally* Prelim. Resp. Having determined that Petitioner failed to satisfy the threshold showing under 35 U.S.C. § 314(a) for institution of trial with respect to independent claims 1 and 15 of the ’626 patent, from which claims 2–4 and 20 depend, we similarly determine Petitioner has failed to demonstrate a likelihood that the subject matter of claims 2–4 and 20 would

have been obvious over the combined disclosures of Bigi, Benito Lopez, and Toncelli.

E. Discretion under 35 U.S.C. § 314(a)

Petitioner argues that the Board should not exercise its discretion to deny institution under 35 U.S.C. § 314(a) in view of the district court litigation. Pet. 71–72 (citing *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential)). Patent Owner does not present arguments directed to whether we should exercise our discretion to deny institution under 35 U.S.C. § 314(a) and *Fintiv*. See generally Prelim. Resp. For the reasons stated above, we decline to institute *inter partes* review. Because we base our denial of institution on the merits of this case, it is unnecessary for us to analyze whether we should also discretionarily deny institution under 35 U.S.C. § 314(a).

III. CONCLUSION

For the reasons set forth above, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to at least one challenged claim of the '626 patent. Accordingly, we do not institute *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, the Petition is *denied* as to all challenged claims of U.S. Patent No. 10,300,626 B2 and no trial is instituted.

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Patent 10,300,626 B2

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