

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SCHOTT GEMTRON CORPORATION,
Petitioner,

v.

SSW HOLDING COMPANY, INC.,
Patent Owner.

Case IPR2014-00367
Patent 8,286,561 B2

Before JUSTIN T. ARBES, PHILIP J. HOFFMANN, and
GEORGIANNA W. BRADEN, *Administrative Patent Judges*.

BRADEN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. *Background*

SCHOTT Gemtron Corporation (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 2–4, 7–10, 14–18, 22, 23, 26, 27, 29, 30, 33–40, 42–45, 48–51, 54–59, 63, and 64 of U.S. Patent No. 8,286,561 B2 (Ex. 1101, “the ’561 patent”) pursuant to 35 U.S.C. §§ 311–319. Paper 2 (“Pet.”). SSW Holding Company, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 5, “Prelim. Resp.”). We instituted an *inter partes* review of claims 2–4, 7–10, 14–18, 22, 23, 26, 27, 29, 30, 33–40, 42–45, 48–51, 54–59, 63, and 64 on certain grounds of unpatentability alleged in the Petition. Paper 9 (“Dec. to Inst.”). After institution of trial, Patent Owner filed a Second Corrected Patent Owner Response (Paper 43, “PO Resp.”), to which Petitioner filed a Corrected Reply (Paper 59 (confidential); Paper 60 (public)) (“Reply”). An oral hearing was held on February 11, 2015.¹

We have jurisdiction under 35 U.S.C. § 6(c). In this Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, we determine Petitioner has not shown by a preponderance of the evidence that any of the challenged claims of the ’561 patent are unpatentable.

B. *Related Proceedings*

Petitioner informs us that the ’561 patent is involved in an action captioned *SSW Holding Co., Inc. v. Schott Gemtron Corp.*, No. 3:12-cv-

¹ A transcript (“Tr.”) of the oral hearing is included in the record. Paper 61. We authorized the filing of Petitioner’s Corrected Reply at the oral hearing. Tr. 4:8–12.

00661 (W.D. Ky.). Pet. 2. The '561 patent is the subject of related IPR2013-00358,² which is on appeal.

C. The '561 Patent

The '561 patent describes shelving, such as shelving adapted for use in refrigerators and having a top surface with a hydrophobic surface arranged in a spill containment pattern. Ex. 1101, 1:15–18; 2:1–4. The spill containment pattern is intended to act as a barrier to prevent spilled liquid from spilling onto other surfaces. *Id.* at 11:28–37. An example of a spill containment pattern is shown in Figure 3 of the '561 patent, reproduced below:

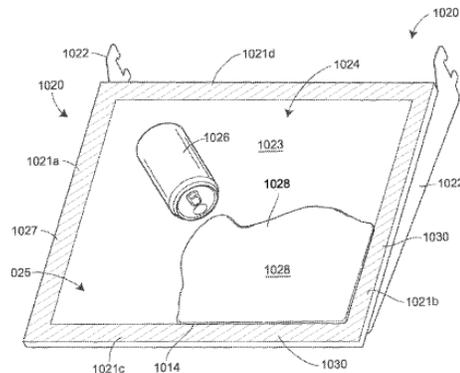


FIG. 3

Figure 3 illustrates a preferred embodiment that includes shelving with a spill containment pattern consisting of a hydrophobic surface in the pattern of a frame-like border. *Id.* at 2:26–30; 3:43–45. The border defines

² IPR2013-00358 was filed by the same Petitioner (SCHOTT Gemtron Corp.) and challenged independent claims 1, 13, and 25 of the '561 patent. In that proceeding, we determined that Petitioner had shown by a preponderance of the evidence that claims 1, 13, and 25 are unpatentable. *See SCHOTT Gemtron Corp. v. SSW Holding Co., Inc.*, IPR2013-00358, slip. op. (PTAB Aug. 20, 2014) (Paper 106) (“IPR2013-00358 Final Dec.”).

the boundaries of a single non-hydrophobic spill containment area therein.
Id. at 3:39–46.

D. Challenged Claims

Although independent claim 1 is not challenged in the Petition, many of the challenged claims depend from claim 1. Thus, claim 1 is reproduced below. Claims 2, 13, 16, 18, 33, and 35, which are illustrative of the claimed subject matter in this trial, also are reproduced below.

1. A shelf assembly comprising:
 - a shelf panel having a generally flat top surface which is capable of supporting articles which may be placed on said shelf panel;
 - a hydrophobic surface applied in a spill containment pattern on the said top surface;
 - wherein the majority of the surface area of said top surface of the shelf panel is not hydrophobic, thereby providing one or more non-hydrophobic central portions bounded by said spill containment pattern of said hydrophobic surface.
2. The shelf assembly of claim 1, wherein said spill containment pattern is a continuous border which defines a single non-hydrophobic central portion within said border.
13. The shelf assembly of claim 1, wherein the hydrophobic surface comprises:
 - a ceramic frit layer adjacent to and bonded to the top surface of said shelf panel; and
 - a hydrophobic compound coated over the ceramic frit layer.
16. The shelf assembly of claim 1, wherein said hydrophobic surface comprises a hydrophobic coating over a roughened area in the surface of said shelf panel.

18. The shelf assembly of claim 1, wherein said hydrophobic surface comprises a coating of hydrophobic particles on the surface of said shelf panel.
33. A shelf assembly comprising:
 a generally flat shelf panel having a top surface and a bottom surface, the top surface capable of supporting articles;
 a hydrophobic surface applied in a spill containment pattern generally in the plane of said top surface;
 at least one non-hydrophobic central portion completely [sic] bounded by the spill containment pattern for containing liquids on the top surface of the shelf panel;
 and
 at least one support bracket attached to the bottom surface of the shelf panel such that the top surface of the shelf panel is completely free from intrusion or other obstruction, thereby maximizing the available shelf space on the top surface of the shelf panel.
35. The shelf assembly of claim 33, further comprising an adhesive material disposed between the support bracket and bottom surface of the shelf panel thereby attaching the support bracket to the shelf panel.

E. Prior Art References Alleged to Support Unpatentability Challenges

The following prior art references were asserted in the instituted grounds:

Name	Description	Date	Exhibit
Angros	US 5,948,685	Sept. 7, 1999	Ex. 1105
Baumann	US 6,872,441 B2	Mar. 29, 2005	Ex. 1106
Picken	International Publ. No. WO 2006/044641 A2	Apr. 27, 2006	Ex. 1108

F. Grounds of Unpatentability Instituted for Trial

The following table summarizes the challenges to patentability that were instituted for *inter partes* review:

Reference(s)	Basis	Claims Challenged
Angros and Picken	§ 103(a)	2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64
Angros, Picken, and Baumann	§ 103(a)	14–18, 22, 26, 27, 29, 30, 54–59, and 63

II. ANALYSIS

A. Claim Interpretation

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1279–83 (Fed. Cir. 2015) (“Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA,” and “the standard was properly adopted by PTO regulation.”). Under that standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In related IPR2013-00358, we construed the terms “shelf panel” and “majority of the surface area of said top surface of the shelf panel is not hydrophobic” in independent claim 1 and “generally in the plane of said top surface” in independent claim 25. *See SCHOTT Gemtron Corp. v. SSW Holding Co., Inc.*, IPR2013-00358, slip. op. at 6–9 (PTAB Nov. 4, 2013) (Paper 14). Both Petitioner and Patent Owner in the instant case adopted the

Board’s claim constructions for these terms from related IPR2013-00358. Pet. 18–19; Prelim. Resp. 8. We then applied the constructions in the Decision to Institute in this proceeding. Dec. to Inst. 6–7. During the course of the trial, neither party challenged our constructions of these claim terms. Thus, we see no reason to alter the constructions of these claim terms as set forth in the Decision to Institute and we incorporate our previous analysis for purposes of this decision. Therefore, for the reasons set forth in the Decision to Institute in IPR2013-00358 (Paper 14), we interpret various claim terms of the ’561 patent as follows:

Term(s)	Interpretation
“shelf panel”	“a piece of material positioned horizontally at a distance above some other surface to hold objects”
“generally in the plane of said top surface”	“all or a portion of the hydrophobic surface extending a small distance above the level of the top surface of the shelf panel that is not readily noticeable to the naked eye”
“majority of the surface area of said top surface of the shelf panel is not hydrophobic”	“the surface area of the non-hydrophobic portion is greater than the surface area of the hydrophobic portion”
“leaving the majority of the surface area of said top surface of the panel non-hydrophobic”	“the surface area of the non-hydrophobic portion is greater than the surface area of the hydrophobic portion”

See Dec. to Inst. 6–7. All other claim terms will be given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention.

B. Principles of Law

To prevail in its challenges to the patentability of the claims, a petitioner must establish facts supporting its challenges by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented 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). 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); *Innovention Toys, LLC v. MGA Entm't, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004); *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992).

A reference is considered analogous prior art: (1) if the reference is from the same field of endeavor as the claimed subjected matter, regardless of the problem addressed, or (2) if “the reference still is reasonably pertinent to the particular problem with which the inventor is involved,” even though the reference is not within the field of the inventor’s endeavor. *Bigio*, 381 F.3d at 1325. The “field of endeavor” test asks if the structure and function of the prior art is such that it would be considered by a person of ordinary skill in the art, because of the similarity to the structure and function of the claimed invention as disclosed in the application. *Id.* at 1325–27. It is necessary to apply “common sense” in “deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor.” *Id.* at 1326 (citations and quotation marks

omitted). As to the “reasonably pertinent” test:

A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor’s endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem. Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve. If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection. An inventor may well have been motivated to consider the reference when making his invention. If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.

Clay, 966 F.2d at 659.

To be considered reasonably pertinent, prior art must “logically commend” itself to an inventor’s attention in considering the problem addressed by the challenged patent. *Innovation Toys, LLC*, 637 F.3d at 1321; *In re Icon Health and Fitness, Inc.*, 496 F.3d 1374, 1379–80 (Fed. Cir. 2007) (quoting *Clay*, 966 F.2d at 659). In other words, “familiar items may have obvious uses beyond their primary purposes.” *KSR Int’l Co.*, 550 U.S. at 420. Importantly, however, the pertinence of prior art as a source of solution to the inventor’s problem *cannot* be considered using hindsight, but must instead be recognizable with the foresight of a person of ordinary skill. *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992).

We analyze the instituted grounds of unpatentability in accordance with the above-stated principles.

C. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, 35 U.S.C. § 103 requires us to determine the level of

ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere*, 383 U.S. 1, 17 (1966). “The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry.” *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991).

1. Effective Filing Date of the '561 Patent

In order for us to resolve the level of ordinary skill in the pertinent art at the time of the invention, we must determine the time of the claimed invention. The '561 patent was filed on September 18, 2009 and is a continuation-in-part of Application No. PCT/US2009/048775, filed on June 26, 2009. The '561 patent claims priority to two provisional applications: U.S. Prov. App. No. 61/133,273 (“the '273 provisional”), filed June 27, 2008; and U.S. Prov. App. No. 61/216,540 (“the '540 provisional”), filed May 18, 2009. Petitioner alleges that none of the claims of the '561 patent are entitled to the benefit of the filing dates of the provisional applications to which the '561 patent claims priority, because the written descriptions of the provisional applications fail to provide sufficient detail to support the challenged claims. Pet. 11–17. We have reviewed Petitioner’s arguments and the provisional applications, and are not persuaded by Petitioner’s contentions. Rather, we conclude that the '273 provisional application, which is the earlier filed of the two provisional applications, provides written description support for the claim elements recited in the challenged claims, and incorporate our previous analysis herein. *See* IPR2013-00358 Final Dec. 11–16 (analyzing disclosure in '273 provisional application and finding support for claims 1, 13, and 25 in the '561 patent). For example, challenged claim 2 requires a “spill containment pattern [that] is a

continuous border which defines a single non-hydrophobic central portion within said border,” and such a spill containment patten can be found in the ’273 provisional application. *See* Ex. 1102, 7–8, 12, 30–31, Figs. 4, 43. Another example of a challenged claim supported by the ’273 provisional application is claim 13, which recites a hydrophobic surface that comprises a ceramic frit layer adjacent to and bonded to the top surface of the shelf panel and a hydrophobic compound coated over the ceramic frit layer. *See* IPR2013-00358 Final Dec. 12–15. Yet another example is for claims 10 and 51, which require a transparent shelf plate, figure 24 of the ’273 provisional application illustrates a glass shelf plate 604 that is transparent with metal frame 602 visible through the shelf plate. Ex. 1102, 23–24, 34, Fig. 24. A final example is for claims 23 and 64, which require a micron thin coating of hydrophobic material, the ’273 provisional application specifies that “the hydrophobic surface treatment may be applied in a number of different methods, including methods such as plasma techniques, vacuum coating, spin coating, [and] spraying,” thereby allowing a micron thin coating of material to be added to a shelf plate. *Id.* at 14, 34–35.

Therefore, we find that the ’561 patent is entitled to the June 27, 2008 filing date of the ’273 provisional application, and the relevant time period for resolving the level of ordinary skill in the art is June 27, 2008.

2. Determination of the Level of Ordinary Skill in the Art

Having determined the appropriate time of the invention (June 27, 2008), we turn to determining the level of ordinary skill in the art at that time. Petitioner’s witness, Mr. Chris B. Schechter, submitted a declaration in support of the Petition. Pet. 20 (citing Ex. 1109). In his declaration, Mr. Schechter testified that a person of ordinary skill in the art relevant to

the '561 patent “would have at least a Bachelor’s degree in mechanical engineering and at least *four years of experience in the spill-proof shelf assembly industry*, or equivalent education and training.” Ex. 1109 ¶ 5 (emphasis added). In related IPR2013-00358, Mr. Schechter also submitted a declaration in support of Petitioner’s petition, in which he testified that a person of ordinary skill in the art relevant to the '561 patent “would have at least a bachelor’s degree in mechanical engineering and at least *four years of experience designing and manufacturing shelf assemblies* or equivalent education and training.” See IPR2013-00358, Ex. 1010 ¶ 4 (emphasis added). Patent Owner’s witness, Mr. Richard Bruce Mills, previously defined a person of ordinary skill in the art relevant to the '561 patent to be a person with “at least an associate’s or bachelor’s degree and [*three*] *years of experience working with shelf assemblies*,” and having familiarity with “encapsulated spill containing refrigerator shelves.” See IPR2013-00358, Ex. 2022 ¶ 8 (emphasis added). In this *inter partes* review, Mr. Mills adopts the definition of a person of ordinary skill in the art as expressed by the Board in IPR2013-00358. Ex. 2121 ¶ 8 (citing IPR2013-00358 Final Dec. 17).

Based on our review of the '561 patent, the types of problems and solutions described in the '561 patent and cited prior art, and the testimony of the parties’ declarants, we conclude that a person of ordinary skill in the art at the time of the claimed invention (i.e., as of June 27, 2008, as discussed above in Section II.C.1) would have had a degree in mechanical engineering or a similar discipline, and at least three years of work experience with refrigerator shelf assemblies. See, e.g., Ex. 1101, 1:16–62 (stating that the '561 patent relates to “shelving which may be adapted for

use with refrigerators,” and describing conventional refrigerator shelf assemblies that use plastic molded parts to encapsulate shelves and silicone sealants to form physical spill containment barriers around the perimeter of the refrigerator shelving); Ex. 1109 ¶¶ 1–3 (describing the background of Mr. Schechter); Ex. 2121 ¶¶ 5–7 (describing the background of Mr. Mills).

Given the stated qualifications of Mr. Mills (Ex. 2121 ¶¶ 5–7 and Ex. 1110, 13:9–24:18), Patent Owner’s declarant meets the requirements of this definition. Petitioner’s witness, Mr. Schechter, however, does not qualify as a person of ordinary skill in the art. Although Mr. Schechter now testifies that he has a Master’s of Science degree in Mechanical Engineering and became a Product Development Engineer for Petitioner in December 2010, his prior declaration states that he began in his position in December 2011, *compare* Ex. 1109 ¶ 1, *with* IPR2013-00358, Ex. 1010 ¶ 1, thus indicating that Mr. Schechter may have had less than two years of experience when he signed his prior declaration on June 14, 2013, IPR2013-00358, Ex. 1010 ¶ 36.³ Furthermore, Mr. Schechter was not a person of ordinary skill in the art at the time of the invention of the ’561 patent (i.e., June 27, 2008). Indeed, at his deposition, Mr. Schechter testified that he does not qualify as one of ordinary skill in the art under the definition in his declaration. Ex. 1121, 26:2–13. Therefore, for these reasons, we accord the testimony of Mr. Schechter regarding the alleged obviousness of the claims less weight.

³ Petitioner argues that the Board “misapprehended” Mr. Schechter’s qualifications, and “committed four errors” in doing so, in the final written decision in IPR2013-00358. Reply 9–10. These arguments are improper, as they are directed to facts and determinations made in a *different proceeding*, and a “reply may only respond to arguments raised in the corresponding . . . patent owner response” under 37 C.F.R. § 42.23(b). Regardless, though, we disagree with Petitioner’s assertions for the reasons stated herein.

D. Alleged Obviousness of Claims 2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64 in view of Angros and Picken

Petitioner alleges that claims 2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64 of the '561 patent are unpatentable under 35 U.S.C. § 103(a) over Angros and Picken. Pet. 49–50. Patent Owner disputes Petitioner's position, arguing that Angros is not analogous art and that a person of ordinary skill in the art would not have had reason to combine the references in the manner proposed by Petitioner. PO Resp. 4–12.

For reasons discussed below, we are persuaded by Patent Owner's arguments. Thus, we determine that Petitioner has not shown by a preponderance of the evidence that claims 2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64 of the '561 patent are unpatentable as obvious over Angros and Picken.

1. Angros's Disclosure

Angros describes an analytic plate, such as a microscope slide or a diagnostic plate, having a containment border for containing a liquid. Ex. 1105, Abst. Angros discloses that the containment border can be a hydrophobic material applied to the plate surface in a bordered pattern to confine liquid that is applied to the plate within the area surrounded by the border. *Id.* at 1:45–48. According to Angros, the hydrophobic containment border “is substantially transparent and is substantially flush with the surface of the slide or plate[,] and [] covers only a portion of the surface of the slide or plate.” *Id.* at 1:67–2:3. Figure 1A of Angros is reproduced below:

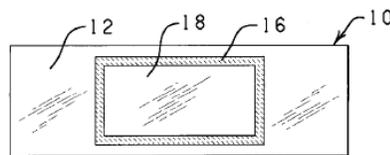


Figure 1A illustrates microscope slide 10 with containment border 16. *Id.* at 2:39–45. Containment border 16 surrounds containment area 18 of the upper surface 12 of slide 10, and prevents spreading, leakage, or migration of liquid from containment area 18. *Id.* at 2:49–58. Figure 1B of Angros is reproduced below:

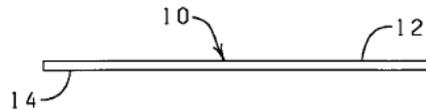


Figure 1B illustrates a side view of an analytic plate with a containment border, top surface 12, and lower surface 14. Angros discloses that “border 16 forms a molecular layer when dry and therefore is substantially flush (level) with the upper surface 12 of the slide 10. The border 16 is[,] therefore[,] not raised above the upper surface 12 to a degree that is visible to the naked eye.” Ex. 1105, 3:3–7.

2. Picken’s Disclosure

Picken describes a shelf assembly for use in a refrigerator. Ex. 1108, Abst. Figure 1 of Picken is reproduced below:

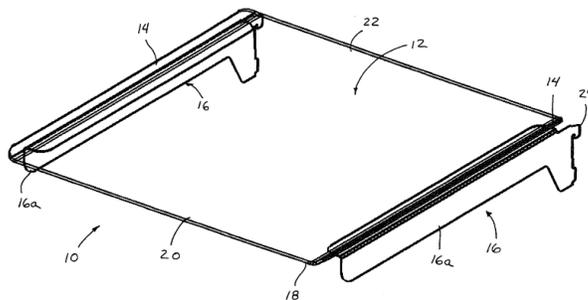


Figure 1 illustrates shelf assembly 10 with generally flat shelf panel 12 and a pair of support rails 16. *Id.* The shelf panel may include a curved, turned, or bent edge on the upper surface of the shelf to limit spillage of liquid over the edge of the shelf panel. *Id.* ¶ 4. Figure 13 of Picken is reproduced below:

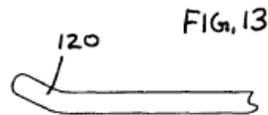


Figure 13 illustrates a shelf panel with forward edge 120 that curves upward to provide a spill-proof edge. *Id.* ¶ 55. An alternative embodiment disclosed by Picken is shown in Figure 17, reproduced below:

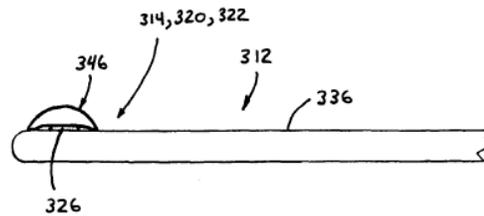


Figure 17 illustrates shelf panel 312 that includes an upper form or guard 346—bonded, via adhesive 326, along edge region 314 on upper surface 336 of shelf panel 312—to prevent liquid movement. *Id.* ¶ 57. The shelf panel may include a frit layer⁴ on the upper or lower surfaces of the panel. *Id.* ¶¶ 6, 57, 71.

3. Obviousness Analysis

The primary dispositive fact Petitioner must establish is that Angros is analogous prior art to the claimed invention. As discussed previously, a reference is considered analogous prior art: (1) if the reference is from the same field of endeavor as the claimed subjected matter, regardless of the problem addressed, or (2) if “the reference still is reasonably pertinent to the particular problem with which the inventor is involved,” even though the reference is not within the field of the inventor’s endeavor. *Bigio*, 381 F.3d at 1325. In *KSR*, however, the Supreme Court ruled that “any need or

⁴ A frit layer is a substrate of glass or ceramic material that is placed or printed in a pattern. Ex. 1001, 6:7–13. The material can include finely ground particles. *Id.* at 6:41–59.

problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining [prior art] elements in the manner claimed.” *KSR*, 550 U.S. at 420. Although that holding addressed a slightly different doctrinal aspect of nonobviousness analysis, the bases for the Supreme Court’s ruling in *KSR* could apply to the “field of endeavor” prong of the analogous arts test. Moreover, the Federal Circuit has held that *KSR* “directs [courts] to construe the scope of analogous art broadly” based on the statement in *KSR* that “*familiar items may have obvious uses beyond their primary purposes*, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010) (quoting *KSR*, 550 U.S. at 402). Yet, the impact of *KSR* on the analogous arts test must be viewed in light of the fact that our obviousness analysis must avoid reliance upon hindsight and the fact that a prior art reference in a separate field of endeavor will not be analogous art unless it is pertinent to *the entire problem* being solved by the challenged patent. *See Klein*, 647 F.3d at 1348 (emphasis added). Additionally, a reference is only considered reasonably pertinent if it would have logically commended itself to an inventor’s attention in considering his or her problem. *See Clay*, 966 F.2d at 659.

The parties do not dispute that Angros’s disclosure regarding microscope slides is not in the same “field of endeavor” as the ’561 patent, which relates to refrigerator shelves. Pet. 26–27; PO Resp. 6–7; Reply 4–9. Rather, Petitioner contends Angros is analogous art to the claimed invention, because “Angros is reasonably pertinent to the problem faced by the Applicants of the [’]561 patent.” Pet. 26–27; Tr. 6:12–7:23. Specifically,

Petitioner states that “[t]he problem faced by the Angros inventors was the same as the problem faced by [the applicants of the ’561 patent], namely, how to contain a liquid in a predetermined area using a structure that is thin and does not extend significantly above the top surface of the panel.”

Pet. 26–27.

In IPR2013-00358, the Board found that Angros was not analogous art to claims 1, 13, and 25 of the ’561 patent. IPR2013-00358, slip. op. at 31 (Paper 106). The Board specifically held that one of ordinary skill in the art of the ’561 patent would not have considered the subject matter of Angros, which deals with microscope slides, to be reasonably pertinent to the problem being addressed by the applicants of the ’561 patent in designing refrigerator shelves. *Id.* at 23. Petitioner presently argues that the Board incorrectly concluded in IPR2013-00358 that Angros did not address the same problem as the ’561 patent. Reply 5. Petitioner contends the Board’s conclusion was premised on flawed analysis that found Angros did not address how to contain an unintentional release of liquid on refrigerator shelves. *Id.* Petitioner further argues that Angros was pertinent to the problem of the ’561 patent because one of ordinary skill in the art would have understood that the technology in Angros would have retained liquids, and therefore “spills,” on a larger panel like a refrigerator shelf. *Id.*

Patent Owner disputes that Angros is reasonably pertinent to the problem addressed by the claimed invention, because Angros does not teach a “spill containment pattern,” does not maximize storage space while containing spills, and would not have been considered in designing refrigerator shelves. PO Resp. 5–6. According to Patent Owner, the problem faced by the inventors of the ’561 patent is described by the

testimony of Mr. Mills as well as the disclosure of the '561 patent itself. *See, e.g.*, Ex. 2121 ¶¶ 43–53; Ex. 1101, Abst. (“a method for containing spills on shelving and the like”); 1:24–2:14 (describing prior art shelves and the objects of the disclosed “method for containing spills on shelving and the like”); 11:41–49 (“[C]omponents such as a plastic rim (or even a frame) may be completely unnecessary with the use of the hydrophobic surface 1030 to provide the spill containment feature. As such, the shelf assembly 1020 depicted in FIGS. 3 and 4 maximizes the available useful shelf space since it does not include a plastic rim, a frame, or any other physical barrier or dam extending above the top surface 1023 of the shelf panel 1024 for preventing liquids from spilling off of the shelf panel 1024.”); 13:51–56 (“by eliminating the space taken up by plastic encapsulation, sealants, adhesives, or formed lips, ridges, physical barriers, and dams, the relative amount of usable shelf space is increased, i.e., maximized, on the top surface 1023 of the shelf panel 1024 in accordance with the preferred embodiments described herein”).

Patent Owner argues that Angros had a significantly different purpose and related to a significantly different problem than the '561 patent. PO Resp. 9 (citing Ex. 2121 ¶¶ 43–53). Mr. Mills, a former employee of Whirlpool Corporation and witness for Patent Owner, testified:

the hydrophobic border in Angros is *not* being used to contain spills or to otherwise provide a spill resistant barrier. Instead, Angros’s border is being used to hold a very small, preselected specimen, which is intentionally placed in a small, defined location under carefully controlled conditions, so as to allow microscopic examination of the specimen. The liquid samples described by Angros are not the result of a spill. They are purposely “placed upon” a slide at a specific location – the

holding area of the slide.

Ex. 2122 ¶ 45.

We agree with Patent Owner's characterization of the problem faced by the inventors of the '561 patent, which is supported by the testimony of Mr. Mills and the disclosure of the '561 patent. Therefore, we determine that the hydrophobic spill-containment perimeter on refrigerator shelves of the '561 patent is designed to contain liquid and maximize available storage space while otherwise avoiding or minimizing the disadvantages in prior art encapsulated shelves. *See* PO Resp. 9–10 (citing Ex. 2121 ¶ 44).

Petitioner, however, contends that the scope of the problem addressed by the '561 patent should be dictated by the scope of the term “spill.” Reply 4. According to Petitioner, “spill” should be construed broadly as “the release of liquid onto a surface” thereby encompassing both accidentally released liquid and intentionally placed liquid. *Id.* Petitioner argues that such a broad construction of “spill” necessarily leads to the conclusion that Angros is analogous art because it addresses the exact problem addressed by the '561 patent, namely, liquid containment. *Id.* Petitioner offers testimony from John P. Driver, one of the named inventors of the '561 patent, to counter Patent Owner's argument and to support its own position that Angros was pertinent to the problem addressed by the challenged claims. Reply 8; Tr. 6:6–7:23; Ex. 1143, 48:23–51:8, 170:23–172:25. Petitioner specifically states that Mr. Driver confirms Angros is analogous art to the '561 patent. Tr. 6:6–7:23. According to Petitioner, Mr. Driver “intentionally poured liquid on shelf panels that were smaller than refrigerator shelves” in order to demonstrate the technology embodied by the '561 patent. Reply 8; Tr. 6:24–25. Petitioner reasons that Mr. Driver's

demonstrations “confirmed that intentional spills onto small shelf panels were representative, simulated, unintentional spills on refrigerator shelves,” thus, indicating that what is at issue in this case is liquid retention and not spill retention. Tr. 7:8–15.

Petitioner’s argument is unpersuasive, regardless of how the term “spill” is construed, because Petitioner’s argument fails to address sufficiently the full scope of the problem pertinent to the inventors of the ’561 patent of how to contain liquids (whether accidentally spilled or intentionally placed) in a predetermined area while maximizing the available storage space on a shelf and while otherwise avoiding or minimizing the disadvantages in prior art encapsulated shelves. *See* PO Resp. 9–10 (citing Ex. 2121 ¶ 44). Petitioner contends that “[t]o be analogous prior art, . . . a reference does not have to address every problem addressed by the claimed technology or provide every benefit ultimately provided by the technology.” Reply 8 (citing *Sci. Plastic Prods., Inc. v. Biotage AB*, 766 F.3d 1355, 1358–59 (Fed. Cir. 2014)). Petitioner’s contention, however, is at odds with the Federal Circuit’s holding in *Klein*, which found that a prior art reference in a separate field of endeavor will not be analogous art unless it is pertinent to *the entire problem* being solved by the challenged patent. *See Klein*, 647 F.3d at 1348.

In *Klein*, the Federal Circuit sided with the patent applicant and rejected the Office’s obviousness conclusions, holding that *none* of the five prior art references by the examiner could be considered “analogous art.” *Id.* at 1352. Klein’s patent application was directed toward a device for measuring and mixing sugar and water for bird feeders, because ornithologists had discovered that different species of birds prefer different

sugar-water ratios. *Id.* at 1345. One embodiment of Klein’s device looked like a measuring cup with a movable divider that separates the space into an area for sugar and another area for water. *Id.* (depicting Figs. 1, 2A, 2B of Klein’s application). The placement of the divider was set according to the bird species being fed. *Id.* With the divider in place, sugar and water could then be added to their respective areas. *Id.* The proper ratio was guaranteed so long as water and sugar were added to the same level or “line of sight.” *Id.* In the application, Klein admitted that the ratios for the various species were known in the prior art. *Id.* Based on that admission, the Examiner issued five separate obviousness rejections — each using a different prior art reference in combination with the admitted ratios. *Id.* at 1346–47. Three of the references disclosed containers with movable dividers used to separate solid items such as screws or bolts. *Id.* at 1348–50. In determining that those references were non-analogous, the court considered the problem being solved by Klein and found that “[a]n inventor considering the problem of ‘making a nectar feeder with a movable divider to prepare different ratios of sugar and water for different animals,’ would not have been motivated to consider any of these references when making his invention, particularly since none of these three references shows a partitioned container that is adapted to receive water or contain it long enough to be able to prepare different ratios in the different compartments.” *Id.* at 1350–51. Given the analysis and holding in *Klein*, we are unpersuaded by Petitioner’s position, because even if a reference is pertinent to some aspect of the patentee’s problem (e.g., a moveable divider), the reference still would fail the analogous art test if it is not related to the problem as a whole.

We also disagree with Petitioner’s assertion that prior art like Angros,

which involves intentionally pouring liquid onto a small surface, is analogous to the '561 patent simply because the named inventors *tested* their shelves by intentionally pouring liquid onto them. *See* Reply 7–8; Tr. 8:10–14:8, 23:23–26:7. First, Petitioner does not cite any legal authority for this proposition. Indeed, the analogous art inquiry requires that we determine whether a reference is reasonably pertinent to the particular problem faced by the inventor, not whether a reference is reasonably pertinent to how the inventor chose to test his or her invention. *See Bigio*, 381 F.3d at 1325; *Clay*, 966 F.2d at 659. Second, what the inventor actually knew or did to test his invention has no bearing on the obviousness analysis. *See Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 454 (Fed. Cir. 1985) (holding “[t]he issue of obviousness is determined entirely with reference to a *hypothetical* ‘person having ordinary skill in the art.’ It is only that hypothetical person who is presumed to be aware of all the pertinent prior art. *The actual inventor’s skill is irrelevant to the inquiry*, and this is for a very important reason. The statutory emphasis is on a person of *ordinary skill*.”) (second emphasis added). Lastly, the '561 patent draws a clear distinction between containing “spills” (e.g., from an overturned soda can) and “pouring” liquid on a surface merely to “illustrate the concepts of liquid spillage” or test a shelf to see how much liquid it can contain. *See, e.g.*, Ex. 1101, 1:23–62, 10:30–42, 11:28–40, 20:7–30. Thus, Petitioner’s arguments regarding testing are not persuasive.

We find that regardless of the construction of the term “spill,” Petitioner has not carried its burden to show that Angros is analogous art, because Petitioner has not shown Angros to be pertinent to the entire problem faced by the inventors of the '561 patent.

Patent Owner also disputes that Angros is analogous art to the claimed invention, arguing that a person having ordinary skill in the art of the '561 patent would not have considered Angros' microscope slides when developing a spill-containing shelf for refrigerators, freezers, pantries, etc. PO Resp. 7–9; Ex. 2121 ¶¶ 40, 42–53. According to Patent Owner's declarant, Mr. Mills, a person of ordinary skill in the art of the '561 patent would not have been familiar with microscope slides and would not have considered them a design resource. Ex. 2121 ¶ 42.

Mr. Schechter, an employee of, and witness for, Petitioner, corroborates the testimony of Mr. Mills. Ex. 1121, 79:4–113:2. Mr. Schechter testified that during the course of his work for Petitioner, he familiarized himself with the state of the art by reviewing “patents focused primarily on the consumer appliance industry” (*id.* at 78:19–79:15) and occasionally reviewed technical publications, technical data sheets, and manuals for production equipment (*id.* at 79:16–81:1). Mr. Schechter, however, testified that microscope slides are not something he was familiar with nor are they something he uses in his work for Petitioner, and could not recall any instance where he reviewed patents or publications (other than Angros) related to microscopes. PO Resp. 9 (citing Ex. 1121, 112:12–113:2). In fact, Mr. Schechter testified he did not find Angros during a prior art search; rather, it was given to him by legal counsel. Ex. 1121, 92:1–4. We credit the testimony of both Mr. Schechter and Mr. Mills on this point.

Unlike Patent Owner's citation to Mr. Mills' testimony, Petitioner does not cite any testimony (from Mr. Driver, Mr. Schechter, or otherwise) stating that Angros is analogous art to the '561 patent or explaining why that would be the case. *See* PO Resp. 2–3, 22–23. Rather, Petitioner argues that

the technology in Angros worked in exactly the same way as the technology in the '561 patent (Reply 4–5) and there was no engineering challenge to one of skill in the art that would have prevented scaling up the Angros technology from microscopes to refrigerator shelves (*id.* at 7–8). According to Petitioner, a person of ordinary skill in the art would have recognized that the liquid retention technology in Angros would have applications beyond microscopes. *Id.* at 5 (citing *KSR*, 550 U.S. at 420–21).

We find Petitioner's arguments to be unpersuasive because Petitioner fails to address how the containment of miniscule amounts of liquid on a microscope slide as disclosed in Angros logically would have commended itself to the inventor's attention in considering the problem addressed by the '561 patent. *See Clay*, 966 F.2d at 658–59 (to be considered reasonably pertinent, prior art must “logically commend” itself to an inventor's attention in considering the problem addressed by the challenged patent). The fact that microscope slides theoretically could be scaled up to have a larger size (*see Reply 8*) does not explain sufficiently why or how a skilled artisan would have recognized that Angros would have applications in designing refrigerator shelves that maximized shelf space and avoided problems with prior art shelves. The Supreme Court in *KSR*, 550 U.S. at 420, stated that “familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” Yet, the burden is on Petitioner in this proceeding to demonstrate by a preponderance of the evidence that the microscope slides in Angros would qualify as a familiar item to an inventor addressing liquid retention and space maximization on refrigerator shelves. We determine that Petitioner has not carried its burden

on this issue.

Therefore, based on the evidence of record, we are persuaded that one of ordinary skill in the art of the '561 patent would not have considered the subject matter of Angros, which deals with microscope slides, to be reasonably pertinent to the problem being addressed by the applicants of the '561 patent in designing refrigerator shelves. Accordingly, we determine Petitioner has not shown Angros to be prior art under 35 U.S.C. § 103.

In addition, even if Angros did qualify as prior art, Petitioner has not shown that the combination of Angros with Picken would have rendered claims 2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64 of the '561 patent obvious. Petitioner argues it would have been obvious to one of skill in the art to modify the shelf panel, as taught by Picken, with the hydrophobic liquid containment barrier, as taught by Angros, because “[t]he application of the spill-containment border of Angros to the shelf assembly of Picken is nothing more than the predictable use of prior art elements according to their established functions.” Pet. 49–50 (citing *KSR*, 550 U.S. at 417). According to Petitioner, merely substituting one element (e.g., guard 346 of Picken) for another element known in the field (hydrophobic containment border of Angros) would have been obvious to one of skill in the art and it would have been expected to yield predictable results. *Id.*

We are not persuaded by Petitioner’s argument that the application of Angros’ spill-containment border is merely the predictable use of prior art elements, because we do not find Angros to be analogous art to Picken. Although it may be obvious for one of skill in the art to “[make a] simple substitution of one known element for another” (*KSR*, 550 U.S. at 417), the element must be familiar or known to the person of ordinary skill in the art

to be used in the substitution. Based on the testimony of record, we do not find that a person of ordinary skill in the art of the '561 patent would have been familiar with items related to microscope slides.

Furthermore, a patent claim “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 401. “Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention.” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (citing *KSR*, 550 U.S. at 421). For an obviousness analysis, “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR*, 550 U.S. at 419. In that regard, Mr. Schechter, witness for Petitioner, testified that Angros and Picken were known in the art and that one of ordinary skill in the art would have been motivated to combine the teachings of the prior art so as to make a design that (i) was more simple or clean or aesthetically pleasing and (ii) had a less obtrusive hydrophobic barrier. Ex. 1121, 180:12–183:23; Ex. 1109 ¶ 31; Ex. 1010 ¶ 28. He then concluded that one of ordinary skill would know how to substitute the spill-contain border in Angros for the plastic guard in Picken. Ex. 1109 ¶ 36.

Mr. Schechter, however, does not explain sufficiently why a person of ordinary skill in the art would look to the field of microscope slides to find a hydrophobic coating to act as a less obtrusive spill containment border in place of the plastic rim in Picken. Mr. Schechter’s testimony is

impermissible hindsight; he opined that all of the elements of the claims disparately existed in the prior art, but fails to provide sufficient reason for why one of ordinary skill in the art at the time of filing would have combined these references. *See, e.g., InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1348–49 (Fed. Cir. 2014) (holding expert testimony to be impermissible hindsight for failing to explaining what reason or motivation one of ordinary skill in the art at the time of the invention would have had to place the prior art together).

In an obviousness determination, we must avoid analyzing the prior art through the prism of hindsight. Instead, we must “cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then–accepted wisdom in the art.” *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983). Petitioner attempts to imbue one of ordinary skill in the art with knowledge of the claimed invention, when no prior art reference or references of record convey or suggest that knowledge. Rather, Petitioner’s argument that Angros is analogous art and that Angros is combinable with Picken appears to be premised on Petitioner’s knowledge of the ’561 patent disclosure.

Petitioner bears the burden of showing by a preponderance of evidence that the asserted prior art references are analogous art and otherwise combinable. On the record before us, we find that Petitioner has not shown that Angros qualifies as prior art under 35 U.S.C. § 103 or that, even if it did, it renders the claims unpatentable in combination with Picken. Therefore, we conclude Petitioner has not demonstrated by a preponderance

of evidence that claims 2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64 of the '561 patent would have been obvious in view of Angros and Picken.

E. Claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 – Alleged Obviousness over Angros, Picken, and Baumann

Petitioner alleges that claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 of the '561 patent are unpatentable under 35 U.S.C. § 103(a) over Angros, Picken, and Baumann. Pet. 46–48; Reply 9. Patent Owner disputes this ground, arguing that Angros and Baumann are both non-analogous art to the claimed invention and cannot be used to establish obviousness. PO Resp. 12.

As discussed in Section II.D.3 above, we are persuaded by Patent Owner's reasoning regarding Angros being non-analogous art; thus, Angros cannot be used in combination with other references (including Baumann) to support a showing of obviousness. Therefore, we determine that Petitioner has not shown by a preponderance of the evidence that claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 of the '561 patent are unpatentable as obvious over Angros, Picken, and Baumann.

1. Baumann's Disclosure

Baumann describes substrates with at least one structured hydrophobic substrate that “provides a good self-cleaning effect.” Ex. 1106, 1:9–11. In one embodiment disclosed by Baumann, the substrate is a ceramic material that is coated with “a composition containing a material producing a glass flux such as a glass frit and structure-forming particles” and that, when the “substrate” is fired at a certain temperature, the glass flux is made hydrophobic. *Id.* at 2:32–39. Baumann further discloses a

micro-rough layer [that] is printed by means of a printing paste containing a glass frit which forms a glass flux, and the

structure-forming particles are applied to the still moist printing surface for example by powdering or dripping on, possibly followed by partial pressing of the particles into the printed surface.

Id. at 6:1–8. “The substrate thus treated is then burnt and made hydrophobic in a known manner.” *Id.* at 6:6–8.

2. Angros’s and Picken’s Disclosures

The disclosure of Angros and Picken are discussed in detail above in Sections II.D.1. and II.D.2.

3. Analysis

Claims 14–18 and 22 depend directly or indirectly from claim 1, claims 26, 27, 29, and 30 depend directly or indirectly from claim 25, and claims 54–59 and 63 depend from claim 33. In addition to the elements recited in independent claims 1, 25, and 33, dependent claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 require (a) various configurations of a spill containment pattern, (b) various types of shelf panels, (c) a ceramic frit layer adjacent to and bonded to the top surface of a shelf panel, or (d) a hydrophobic compound coated over the ceramic frit layer.

Petitioner contends that ceramic frits coated with hydrophobic surfaces were well known in the art at the time the ’561 patent was filed. Pet. 47. Indeed, the ’561 patent cites to Baumann as disclosing a ceramic frit. *See* Ex. 1101, 7:36–41. According to Petitioner, the application of a hydrophobic surface comprising a ceramic frit and a hydrophobic compound, as described in Baumann, to form a spill-containment border, as described in Angros, would be the predictable use of prior art elements according to their established functions. Pet. 47 (citing *KSR*, 550 U.S. at 417). Petitioner then contends that, if the border described in Picken was

substituted with the hydrophobic surfaces described in Baumann, a person of ordinary skill in the art would expect that the shelf assembly of claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 would result. Pet. 47–48. Petitioner further contends that Baumann and Angros are analogous art and in combination with Picken would render the challenged claims obvious.

Reply 9.

Patent Owner disputes Petitioner’s position, asserting that Baumann is non-analogous art that is neither from the same field of endeavor as the ’561 patent, nor is it “reasonably pertinent” to the problem faced by the inventors of the ’561 patent. PO Resp. 12–15; Ex. 2121 ¶ 57. According to Patent Owner, Baumann is directed to self-cleaning substrates suitable “for glazing vehicles and trains and for glass bricks,” as well as “building material such as roof tiles, clinker and floor tiles.” *Id.* at 12–13 (citing Ex. 1106, 6:62–7:3). Thus, Patent Owner concludes Baumann is in a different field of endeavor from the ’561 patent, which is directed to refrigerator shelves. PO Resp. 14.

Patent Owner also contends that Baumann is non-analogous art, because it is directed to a much different problem than that faced by the inventors of the ’561 patent. *Id.* at 14–15. Specifically, Patent Owner characterizes Baumann as providing a substrate that eliminates water and dirt that may otherwise collect thereon. *Id.* (citing Ex. 2121 ¶¶ 59–60; Ex. 1106, 2:64–3:1). According to Patent Owner, Baumann’s intended objective is directly opposite that of the ’561 patent, which is to contain spills, not to eliminate them from the shelf. PO Resp. 14–15.

The hydrophobic coating disclosed in Baumann is designed to coat an entire top surface of an article to create a self-cleaning surface that facilitates

liquid run-off. Ex. 1106, 2:64–3:1. Based on the disclosure in Baumann, we conclude that a combination of Picken and Baumann would result in a refrigerator shelf, as disclosed in Picken, with its entire top surface treated with Baumann’s self-cleaning coating. Furthermore, the raised form from Picken would remain, because there is no suggestion that the coating of Baumann could perform liquid containment. Thus, we find that a combination of Picken and Baumann lacks a suggestion to create (1) a hydrophobic barrier wherein the majority of the top surface of shelving assembly is not hydrophobic or (2) a generally flat shelf panel having a top surface and a spill containment pattern generally in the plane of the top surface. Therefore, we determine that the only disclosure that Petitioner has identified for a hydrophobic barrier that would not coat the entire top surface of a shelving assembly and that would retain liquid is Angros.

As discussed in detail above, however, we already have concluded that Petitioner has not shown Angros to be reasonably pertinent to the problem addressed by the challenged claims. Such a deficiency defeats Petitioner’s obviousness challenge as to claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 and is not remedied by the combination of Angros, Picken, and Baumann. Therefore, we determine Petitioner has not demonstrated by a preponderance of the evidence that claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 of the ’561 patent would have been obvious over Angros, Picken, and Baumann.

F. Secondary Considerations of Non-Obviousness

Patent Owner contends Petitioner has failed to meet its burden of showing unpatentability, because objective indicia of nonobviousness indicate that the claimed subject matter would not have been obvious. PO

Resp. 24–35. Petitioner disputes the application of secondary considerations of non-obviousness of the challenged claims. Reply 10–15. As discussed above, we have found Angros to be non-analogous and not combinable with the other references. Thus, we need not address Patent Owner’s evidence regarding secondary considerations of non-obviousness.

G. Motion to Exclude

Petitioner moves to exclude the following evidence submitted by Patent Owner in this proceeding: Exhibits 2006–13, 2037, 2108 (¶¶ 7–21), 2109–2112, 2115–2119, 2121 (¶¶ 15–21, 32–36), and 2123. Paper 50. Patent Owner filed an opposition (Paper 53), and Petitioner filed a reply (Paper 56). All of the evidence sought to be excluded by Petitioner pertains to Patent Owner’s assertions of secondary considerations of non-obviousness. Because we need not reach that issue, for the reasons explained above, Petitioner’s motion is dismissed as moot.

III. CONCLUSION

We have considered the record before us in this *inter partes* review proceeding. We conclude Petitioner has NOT proven by a preponderance of the evidence that:

- (1) The subject matter of claims 2–4, 7–10, 23, 33–40, 42–45, 48–51, and 64 of the ’561 patent is unpatentable under 35 U.S.C. § 103 over the teachings of Angros and Picken; and
- (2) The subject matter of claims 14–18, 22, 26, 27, 29, 30, 54–59, and 63 of the ’561 patent is unpatentable under 35 U.S.C. § 103 over the teachings of Angros, Picken, and Baumann.

IV. ORDER

For the reasons given, it is hereby:

ORDERED that Petitioner has not shown by a preponderance of the evidence that claims 2–4, 7–10, 14–18, 22, 23, 26, 27, 29, 30, 33–40, 42–45, 48–51, 54–59, 63, and 64 of the '561 patent are unpatentable;

FURTHER ORDERED that Petitioner's motion to exclude (Paper 50) is *dismissed*; and

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

Certain materials have been sealed in this proceeding, but have not been relied upon in this final written decision. *See* Papers 32, 54. The record will be maintained undisturbed pending the outcome of any appeal taken from this decision. At the conclusion of any appeal proceeding, or if no appeal is taken, the materials will be made public. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,760–61 (Aug. 14, 2012). Further, either party may file a motion to expunge the sealed materials from the record pursuant to 37 C.F.R. § 42.56. Any such motion will be decided after the conclusion of any appeal proceeding or the expiration of the time period for appealing.

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