

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HAMILTON BEACH BRANDS, INC.,
Petitioner,

v.

COURTESY PRODUCTS, LLC
Patent Owner.

Case IPR2014-01257
U.S. Patent No. 7,311,037

COURTESY PRODUCTS, LLC'S NOTICE OF APPEAL

via PRPS
Patent Trial and Appeal Board

via Federal Express
Director of the United States Patent and Trademark Office
c/o Office of the General Counsel, 10B20
Madison Building East
600 Dulany Street Alexandria, VA 22314

via CM/ECF
United States Court of Appeals for the Federal Circuit

Pursuant to 35 U.S.C. §§ 141 and 142 and 37 C.F.R. §§ 90.2, 90.3, Patent Owner Courtesy Products, LLC, hereby gives notice of its appeal to the United States Court of Appeals for the Federal Circuit from the February 24, 2016, Final Written Decision (Paper 49) by the United States Patent and Trademark Office Patent Trial and Appeal Board in *Inter Partes* Review IPR2014-01257, and from all orders, decisions, rulings, and opinions underlying the Final Written Decision.

In accordance with 37 C.F.R. §§ 90.2(a)(3)(ii), Courtesy Products LLC provides the following information regarding issues to be reviewed on appeal in order to allow the Director to determine whether to exercise the right to intervene:

(1) The Board's determination that claims 1-5, 8-18, 20-25, and 27-29 of U.S. Patent No. 7,311,037 are unpatentable under 35 U.S.C. § 103(a); and

(2) The Board's findings regarding secondary considerations of nonobviousness and its application of those findings.

Patent Owner reserves the right to raise on appeal any finding or determination related to the issues listed above and to raise any other issue decided adversely to Patent Owner in the proceedings underlying the Final Written Decision.

Simultaneously with this submission, copies of Patent Owner's Notice of Appeal are being filed with the Director of the United States Patent and Trademark

Office and, along with the required docketing fee, with the Clerk's Office for the United States Court of Appeals for the Federal Circuit.

Dated: April 26, 2016

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CERTIFICATE OF SERVICE AND FILING

I certify that, on April 26, 2016, in addition to being electronically filed through the Patent Trial and Appeal Board's Patent Review Processing System, true and correct copies of COURTESY PRODUCTS, LLC'S NOTICE OF APPEAL were filed and served as set forth below:

A true and correct copy of the above-captioned Notice of Appeal is being filed by Federal Express with the Director of the United States Patent and Trademark Office on April 26, 2016, at the following address:

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel, 10B20
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The undersigned also hereby certifies that a true and correct copy of the above-captioned Notice of Appeal and the filing fee is being filed via CM/ECF with the Clerk's Office of the United States Court of Appeals for the Federal Circuit on April 26, 2016.

The undersigned also hereby certifies that the foregoing Notice of Appeal was served via Federal Express on April 26, 2016, in its entirety on the following counsel of record for Petitioner Hamilton Beach Brands, Inc:

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HAMILTON BEACH BRANDS, INC.,
Petitioner,

v.

COURTESY PRODUCTS, LLC,
Patent Owner.

Case IPR2014-01257
Patent 7,311,037 B2

Before GRACE KARAFFA OBERMANN, HYUN J. JUNG, and
CHRISTOPHER M. KAISER, *Administrative Patent Judges*.

JUNG, *Administrative Patent Judge*.

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

I. INTRODUCTION

Hamilton Beach Brands, Inc. (“Petitioner”) filed a corrected Petition (Paper 4, “Pet.”), requesting institution of an *inter partes* review of claims 1–29 of U.S. Patent No. 7,311,037 B2 (Ex. 1001, “the ’037 patent”). Courtesy Products, LLC (“Patent Owner”) timely filed a Preliminary Response. Paper 10. Based on these submissions, we instituted *inter partes* review of claims 1–5, 8–18, 20–25, and 27–29 of the ’037 patent. Paper 14 (“Dec. on Inst.”).

After institution, Patent Owner filed a Response (Paper 22, “PO Resp.”), and Petitioner filed a Reply (Paper 33, “Reply”). Petitioner proffered a Declaration of Kurt J. Krause (Ex. 1007, “Krause Declaration”) and a Declaration of Alexander H. Slocum (Ex. 1009, “Slocum Declaration”) with its Petition. Patent Owner proffered the Declaration of Alan D. Ball. (Ex. 2004, “Ball Declaration”) with its Response. Also, a deposition transcript was filed for Mr. Ball (Ex. 1025).

Patent Owner moves to seal certain portions of its Response and Exhibit 2018. Paper 21. Petitioner moves to exclude the Ball Declaration and Exhibits 2002, 2007–2011, and 2013–2018. Paper 35.

A combined oral hearing in this proceeding and Case IPR2014-01258 was held on December 2, 2015; a transcript of the hearing is included in the record (Paper 48).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–5, 8–18, 20–25, and 27–29 of

the '037 patent are unpatentable. We also grant Patent Owner's motion to seal and deny Petitioner's motion to exclude.

A. Asserted Ground of Unpatentability

We instituted *inter partes* review on the sole ground that, under 35 U.S.C. § 103, claims 1–5, 8–18, 20–25, and 27–29 are unpatentable over Liu¹, Sylvan², and Luedtke³

B. Related Proceedings

The '037 patent is the subject of *Courtesy Products, LLC v. Hamilton Beach Brands, Inc.*, 1:13-cv-02012-SLR (D. Del.). Pet. 2; Paper 6, 2.

The '037 patent is also related to the patent that is the subject of *inter partes* review in Case IPR2014-01258. Pet. 2–3; Paper 6, 2.

C. The '037 Patent (Ex. 1001)

The '037 patent relates to a “single-use, disposable brew basket for an electric coffee maker.” Ex. 1001, 1:10–12. Figure 1 of the '037 patent is reproduced below.

¹ U.S. Pat. No. 6,164,191, iss. Dec. 26, 2000 (Ex. 1002).

² U.S. Pat. No. 5,840,189, iss. Nov. 24, 1998 (Ex. 1003).

³ U.S. Pat. No. 3,446,624, iss. May 27, 1969 (Ex. 1004).

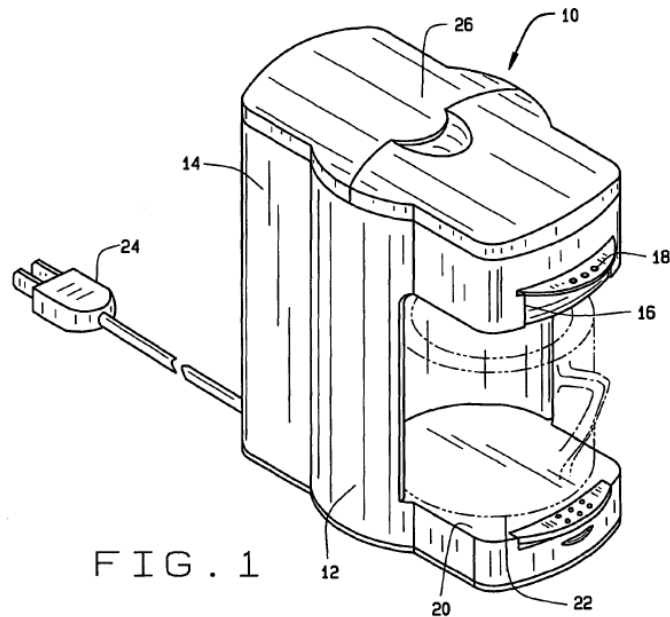


Figure 1 is a perspective view of an electric coffee brewing machine. *Id.* at 3:10–11. Electric coffee machine 10 “is similar to other conventional drip-type electric coffee brewing machines” and includes basket-receiving recess 16 and brew basket 18. *Id.* at 3:47–55. Figure 2 of the ’037 patent is reproduced below.

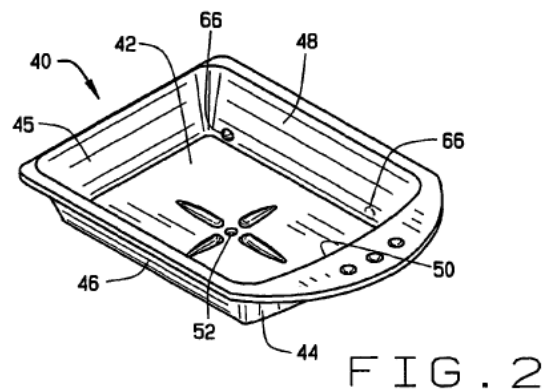


Figure 2 is a perspective view of a disposable brew basket. *Id.* at 3:12–13. Disposable brew basket 40 is shaped to fit within basket-receiving recess 16 instead of brew basket 18. *Id.* at 4:8–11.

Claims 1 and 27–29 are the independent claims challenged by the Petition, and claim 1 is reproduced below:

1. A beverage brewing system, comprising:

a beverage brewing machine having a housing, a water reservoir, an electrical heating element for heating water and a location to receive a brew basket, the brewing machine heating water from the water reservoir;

a plurality of filter packs for use with the beverage brewing machine, each filter pack containing an amount of grinds sufficient to brew approximately only a single serving of brewed beverage; and

a plurality of single serving disposable brew baskets for use with the beverage brewing machine, the brew baskets being inserted into the location in the beverage brewing machine,

the brew baskets comprising a bottom and a wall extending generally upwardly from the bottom to define a brewing reservoir,

the bottom and wall being formed with a disposable rigid non-collapsible one-piece construction,

the bottom having a port there through to permit a brewed beverage to flow from the brewing reservoir of the disposable brew basket into a single serving beverage container located proximate to the beverage brewing machine,

the wall of the brew basket extending upwardly from the bottom to an open top,

the brewing reservoir having a size dimensioned appropriate to make approximately only a single serving of beverage during a brewing operation,

the brewing reservoir being sufficiently large to hold at least one of the filter packs and the heated water while brewing without a level of the heated water rising above and overflowing the open top; and

a first package including at least one of the brew baskets and a second package including at least one of the filter packs, the first and second packages being separate from one another.

II. CLAIM CONSTRUCTION

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012). Only those terms in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Petitioner proposes constructions for “single serving disposable brew baskets,” “non-collapsible,” and “brewing reservoir”⁴ (Pet. 16–19), but Patent Owner does not propose interpretations for any term (*see* Prelim. Resp.; PO Resp.).

In our Decision to Institute, we determined that no claim terms required construction. Dec. on Inst. 5–6. Based on our review of the complete record, we determine that no claim term requires express construction for the purposes of this decision.

III. CHALLENGE BASED ON LIU, SYLVAN, AND LUEDTKE

To prevail in its challenge of claims 1–5, 8–18, 20–25, and 27–29 as unpatentable over Liu, Sylvan, and Luedtke, Petitioner must prove

⁴ *See* Paper 12 (granting Joint Stipulation to change the Petition’s proposed claim construction of “brewing reservoir”).

unpatentability 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). To establish obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *See CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974).

A patent claim composed of several elements, however, is not proved obvious merely by demonstrating that each of its elements was known, independently, in the prior art. *KSR*, 550 U.S. at 418. For an obviousness analysis, it is important to identify a reason that would have prompted one of skill in the art to combine prior art elements in the way the claimed invention does. *Id.* Obviousness can be established when the prior art, itself, would have suggested the claimed subject matter to a person of ordinary skill in the art. *In re Rinehart*, 531 F.2d 1048, 1051 (CCPA 1976).

A. *Liu (Ex. 1002)*

Liu describes a single serving beverage maker. Ex. 1002, Abstract. Figure 1 of Liu is reproduced below.

Fig. 1

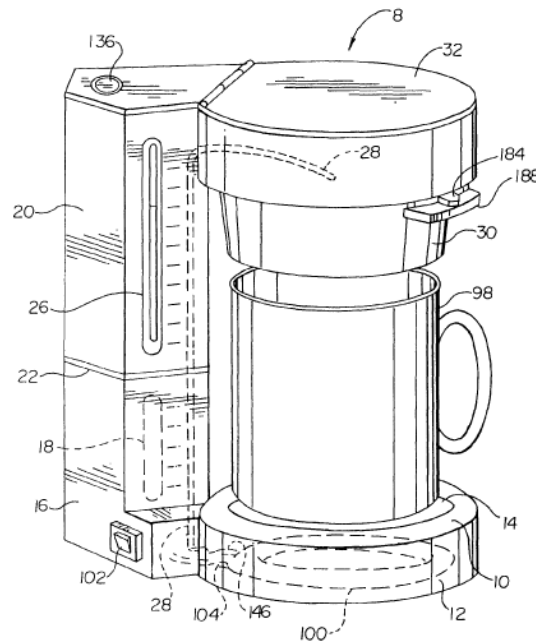


Figure 1 is a perspective view of an embodiment of the single serving beverage maker. *Id.* at 1:34–36. Single serving beverage maker 8 includes base housing 10, water storage reservoir 20, and brewing compartment 30. *Id.* at 1:57–67. Support basket 162 of brewing compartment 30 can be used to retain ground coffee. *Id.* at 3:3–8, Fig. 2. Liu also describes that “[i]n operation, if it is desired to brew one cup of coffee, . . . the desired amount of coffee is placed in the brewing reservoir . . . in a pre-filled, porous bag **24**, similar to a conventional teabag.” *Id.* at 4:34–37.

B. Sylvan (Ex. 1003)

Sylvan “relates to an imperforate beverage filter cartridge which is adapted to hermetically contain a beverage extract and which is yieldably pierceable, both to accommodate an injection of liquid into the cartridge for combination with the extract to produce a beverage, and to accommodate an

outflow of the beverage.” Ex. 1003, 1:14–19. Figure 1 of Sylvan is reproduced below.

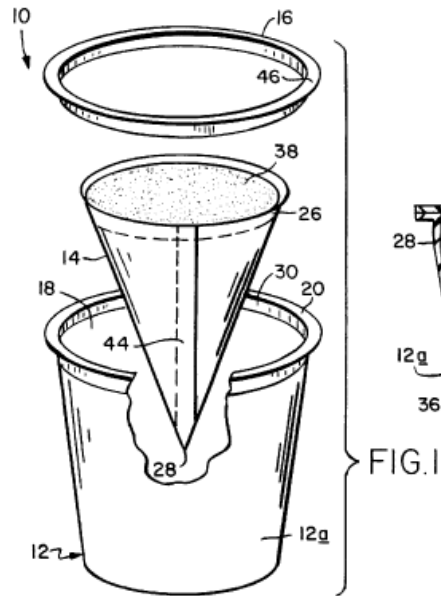


Figure 1 depicts an exploded view of the beverage filter cartridge. *Id.* at 2:48–50. Beverage filter cartridge 10 includes pierceable hollow base 12, filter element 14 that stores extract 38 of the beverage to be made, such as coffee, and pierceable cover 16. *Id.* at 2:66–3:2, 3:36–39. Sylvan describes that the filter cartridge “can be disposed of after a single use.” *Id.* at 1:49–51.

C. Luedtke (Ex. 1004)

Luedtke relates “to a throw-away device adapted to instantly drip brew a single cup of coffee.” Ex. 1004, 1:36–38. Figure 1 of Luedtke is reproduced below.

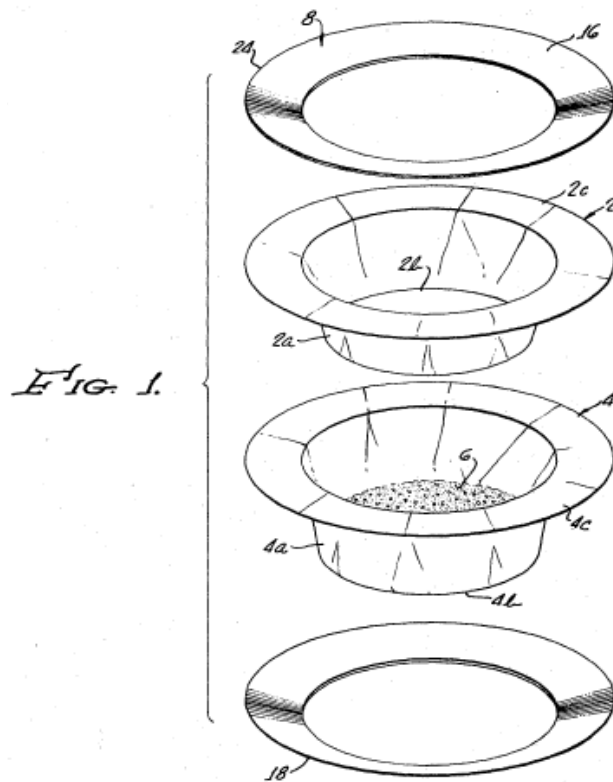


Figure 1 depicts an exploded perspective view of a disposable drip brewing device. *Id.* at 2:39–42. The disposable drip brewing device includes “nested filter cups **2** and **4** defining a chamber containing a measured quantity of ground coffee **6**.” *Id.* at 2:54–57. Luedtke also describes that the devices “may be individually packaged in a packet **23** of air tight material such as metallic foil.” *Id.* at 3:40–42.

D. Independent Claims 1 and 27–29

Petitioner argues that independent claims 1 and 27–29 are unpatentable under 35 U.S.C. § 103 over Liu, Sylvan, and Luedtke, referring to disclosures in the references and a claim chart. Pet. 4, 19–25, 31–34. Petitioner also relies on the Krause Declaration (Ex. 1007) and the Slocum Declaration (Ex. 1009). *Id.* at 4. For independent claims 27–29, Petitioner relies on its arguments for claim 1. *Id.* at 31–34.

Petitioner argues that Liu teaches or suggests all the limitations of claim 1 except for those related to “a plurality of filter packs,” “a plurality of single serving disposable brew baskets,” the construction of the brew baskets, and separate first and second packages for the brew baskets and filter packs. Pet. 23–25 (citing Ex. 1002, 1:57–2:10, 2:17–21, 3:5–6, 3:9–15, 3:42–51, 4:34–38, Figs. 1–2; Ex. 1007 ¶¶ 28–29; Ex. 1009 ¶¶ 25, 27–33, 40, 46–50).

For “a plurality of filter packs for use with the beverage brewing machine, each filter pack containing an amount of grinds sufficient to brew approximately only a single serving of brewed beverage,” Petitioner relies on Liu in combination with Luedtke. *Id.* at 23–24. In particular, Petitioner relies on Liu for teaching or suggesting prefilled porous bags 24 and Luedtke for teaching or suggesting a filter device 3 that can be thrown away after a single use. *Id.* (citing Ex. 1002, 4:34–38; Ex. 1004, 1:37–38, 1:61–62, 2:54–57, Fig. 3; Ex. 1007 ¶¶ 28–29; Ex. 1009 ¶¶ 28–29, 40, 46–50). Petitioner argues that “combining Liu, Sylvan, and Luedtke demonstrates that all the elements in the ’037 Patent were known in the prior art, and their combination yielded nothing but predictable results.” *Id.* at 21–22 (citing Ex. 1009 ¶¶ 42–50). Patent Owner does not present any specific arguments regarding these limitations of claim 1.

A person of ordinary skill in the art “is not an automaton,” and would have recognized the sanitary benefit of combining Lui’s pre-filled porous coffee bags with Luedtke’s disposable filter—a combination suggested by Sylvan’s single-service coffee beverage filter cartridge. *KSR*, 550 U.S. at 421. Based on the full record before us, therefore, we agree with Petitioner that the cited portions of Liu, Sylvan, and Luedtke teach or suggest the

limitations of claim 1 described above and similar limitations recited by independent claims 27–29. We address below the remaining limitations of independent claims 1 and 27–29.

1. *“a plurality of single serving disposable brew baskets for use with the beverage brewing machine”*

For limitations regarding the plurality of single serving disposable brew baskets having a bottom and a wall formed with a disposable, rigid, non-collapsible, one-piece construction, Petitioner relies on Sylvan for teaching or suggesting “a plurality of cartridges 10, each having a base 12, that ‘can be disposed of after a single use’” and that “‘may be made of polystyrene, ethylene vinyl alcohol, and polyethylene.’” Pet. 24 (citing Ex. 1003, 1:49–51, 2:32–33). In addition to arguing that “combining Liu, Sylvan, and Luedtke demonstrates that all the elements in the ’037 Patent were known in the prior art, and their combination yielded nothing but predictable results” (*id.* at 21–22 (citing Ex. 1009 ¶¶ 42–50)), Petitioner argues:

modifying Liu according to the teachings of Sylvan would have involved a simple substitution of one known element (*i.e.*, Liu’s reusable support basket 162) for another (*i.e.*, Sylvan’s base 12 of disposable cartridge 10) to obtain the predictable result of a disposable, non-collapsible, and rigid brew basket that can result in substantial cost savings to a hotel and increased user satisfaction of hotel guests.

Id. at 22 (citing Ex. 1009 ¶¶ 43–44).

For the disposable brew basket limitation as recited by claim 1, Patent Owner states that “[i]ndependent claims 27–29 recite similar features.” PO Resp. 20. Patent Owner also responds that “substitution of Liu’s reusable support basket 162 for Sylvan’s base 12 ‘is anything but ‘simple’ and

obvious,” “would require fundamentally changing the basic principles under which the Liu system operates,” “would render the Liu system inoperable for its intended purpose,” and “would not satisfy the ‘port’ limitations of the claims” because “Sylvan does not have any opening on the bottom of its impermeable, imperforate, yieldably pierceable disposable base 12.” PO Resp. 20–30 (citing Ex. 1002, 2:6–13, 2:43–58, 2:66–3:26, 3:30–39, 3:42–46, 4:24–27, 4:31–34, Figs. 2–5; Ex. 1003, 1:49–52, 2:66–3:20, 3:49–56, 4:16–27, Fig. 4; Ex. 2004 ¶¶ 38–41, 44–46, 48, 49, 58, 59, 66; Ex. 2005, 585, 865).

After considering the full record before us, we agree with Petitioner that Liu teaches a single serve brew basket. Pet. 20; Ex. 1002, 1:67–2:2 (“It is to be understood that the beverage maker **8** is sized throughout to only make or brew a single serving at a time”); Ex. 1009 ¶¶ 27, 28, 42; Ex. 2004 ¶ 37 (“The ’191 (Liu) patent describes a single serve drip coffeemaker system which utilizes a multiple serving water reservoir in combination with a single serving measuring reservoir to brew and dispense successive single servings of cups of coffee without the need to replenish the water reservoir after each cup brewed.”). Liu also teaches that “infused water exits through discharge opening **164** into underlying cup **98**.” Ex. 1002, 3:12–13; Ex. 1009 ¶ 31; Ex. 2004 ¶ 38.

We also agree with Petitioner that Sylvan teaches that its cartridge 10 can be disposed of after a single use. Pet. 24; Ex. 1003, 1:49–51 (“It is a further object of this invention to provide an improved beverage filter cartridge which is simple and has very few parts so it can be disposed of after a single use.”); Ex. 1009 ¶¶ 36, 42; Ex. 2004 ¶ 41 (“After use, the entire beverage filter cartridge is removed from the machine and discarded

as a whole”). We, thus, determine that a single server brew basket and a disposable cartridge were known in the prior art. Pet. 21–22.

We also determine that Sylvan teaches an imperforate cartridge adapted to hermetically contain a beverage extract. Ex. 1003, 1:14–16, 2:8–17; *see also* PO Resp. 24 (describing Sylvan). We determine that Sylvan teaches “[b]oth the cover and base are yieldably piercable, the cover to accommodate an injection of liquid into the first chamber for combination with the extract to produce a beverage, and the base to accommodate the outflow of the beverage from the second chamber.” Ex. 1003, 2:17–21; *see also* PO Resp. 24 (describing Sylvan); Ex. 2004 ¶ 41. We agree with Patent Owner’s expert that Sylvan’s “cartridge is designed as a stand-alone hermetically sealed food package for the beverage extract.” Ex. 2004 ¶ 41 (citing Ex. 1003, 3:48–56, Figs. 4, 5). We also agree with Patent Owner’s expert that, to make a beverage, Sylvan’s “cartridge base is also pierced to allow the beverage to drain from the cartridge.” Ex. 2004 ¶ 41 (citing Ex. 1003, 3:15–17, 4:24–27). Thus, we determine that one of ordinary skill in the art would understand Sylvan’s cartridge, when unpierced, provides a hermetically sealed food package for a beverage extract, and when pierced, allows a beverage made from the extract to drain.

In view of these teachings of Sylvan and the full record before us, we agree with Petitioner that combining Liu, Sylvan, and Luedtke demonstrates that all the elements were known in the prior art, and their combination yielded nothing but predictable results. Pet. 21–22. As discussed above, we determine that Liu and Sylvan demonstrate that single serve brew baskets, brew baskets with an opening for dripping infused beverage, and disposable cartridges that, when pierced, make a beverage from an extract were known.

The complete record does not indicate that the combination yielded any result that was not predictable.

In view of the teachings of Sylvan and the full record before us, we also agree with Petitioner that Sylvan's base 12 can be substituted for Liu's basket 162. Patent Owner's arguments are based on one of ordinary skill in the art failing to understand that Sylvan's base must be pierced to make a beverage from the beverage extract. *See* PO Resp. 20–30. We determine, however, that one of ordinary skill in the art would understand Sylvan's cartridge, when pierced, allows a beverage made from the extract to drain, thereby teaching or suggesting that the cartridge functions as a brew basket.

Moreover, one of ordinary skill in the art need only modify the cartridge of Sylvan by providing a port. To the extent that some modification would be required, “we do not ignore the modifications that one skilled in the art would make to a device borrowed from the prior art.” *In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1382 (Fed. Cir. 2007). Liu indicates that providing a port to a brew basket is within ordinary skill. *See* PO Resp. 23 (stating “the purpose of the opening 164 in Liu is to enable the delivery of fresh, single servings of a heated beverage on demand”) (citing Ex. 1002, 1:25–31; Ex. 2004 ¶ 39).

Patent Owner argues that, contrary to Petitioner's rationale, the material of Sylvan is not reusable, is more expensive, and is intended for food storage, not a brew basket. *Id.* at 33–38 (citing Pet. 22; Ex. 1002, 3:8–10; Ex. 1003, 1:57–59, 3:8–12; Ex. 1009 ¶ 44; Ex. 1020; Ex. 2002, 1; Ex. 2004 ¶¶ 38, 41, 47, 59; Ex. 2006, 186, 191–193, 481, 483). Patent Owner notes that the Slocum Declaration cites the Krause Declaration in support of “cost savings” and, further, argues that the Krause Declaration misreads the

cost analysis from the prosecution history. *Id.* at 38–41 (citing Ex. 1006, 56, 63, 65, 71, 74, 82; Ex. 1007 ¶¶ 25, 26; Ex. 1009 ¶ 43; Ex. 2004 ¶¶ 58, 70, 85). These arguments are not persuasive because we determined above that Sylvan’s cartridge is disposable and the challenged claims do not require an inexpensive material for the recited brew baskets.

Moreover, the ’037 patent states that, “[i]n the preferred embodiment of the invention, the disposable brew basket 40 is made of vacuum formed high-impact polystyrene.” Ex. 1001, 4:26–28. Sylvan teaches that the “base may be made of polystyrene, ethylene vinyl alcohol, and polyethylene,” the “base **12** is typically formed from a polymeric laminate,” and “[o]ne example of a base material is Product No. **C150**.” Ex. 1003, 2:32–33, 3:8–10. Although Patent Owner presents evidence that Sylvan’s material is expensive, the complete record does not indicate that polystyrene alone provides unexpected results for the brew basket or that it is beyond ordinary skill to select polystyrene alone for Petitioner’s combination of Liu and Sylvan.

Patent Owner also contends that Liu teaches away from eliminating its support basket 162 and brewing mechanisms. PO Resp. 25–26. The argument is not persuasive because Petitioner asserts that known elements could be combined predictably and proposes substitution, not elimination, of support basket 162 and brewing mechanisms. *See* Pet. 21–22.

Patent Owner asserts that Petitioner’s motivation is hindsight reasoning because Liu and Sylvan “fail to provide any reasonable motivation” for Petitioner’s modification and “the system of Sylvan is very different than the system of Liu.” *Id.* at 30–32 (citing Ex. 1002, 3:3–14, 3:42–46; Ex. 1003, 1:46–52, 3:15–17, 4:24–27; Ex. 2004 ¶¶ 41, 44, 58, 70,

85). “A person of ordinary skill is also a person of ordinary creativity, not an automaton” (*KSR*, 550 U.S. at 421) and it would have been a matter of “ordinary creativity” to modify the reusable brew basket of Liu to be disposable. As for Sylvan being different from Liu, we determine that Sylvan is in the relevant field of endeavor and is reasonably pertinent to the problem with which the inventor was concerned. In particular, both Sylvan and Liu relate to single serving beverage makers. Neither reference is “too remote to be treated as prior art.” *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992) (quoting *In re Sovish*, 769 F.2d 738, 741 (Fed. Cir. 1985)).

2. “a first package including at least one of the brew baskets and a second package including at least one of the filter packs, the first and second packages being separate from one another”

For the limitation regarding separate first and second packages for the brew baskets and filter packs, Petitioner relies on Luedtke for teaching or suggesting that filter devices 3 “may each be individually packaged in a package 23 of air tight material.” Pet. 25 (citing Ex. 1004, 3:38–42, Figs. 3, 5; Ex. 1009 ¶¶ 40–41, 46–50). In addition to arguing that “combining Liu, Sylvan, and Luedtke demonstrates that all the elements in the ’037 Patent were known in the prior art, and their combination yielded nothing but predictable results” (*id.* at 21–22 (citing Ex. 1009 ¶¶ 42–50)), Petitioner argues that “it would have also been obvious . . . to extend Luedtke’s teaching of packaging of disposable articles to taking a disposable brew basket, as taught by the combination of Liu and Sylvan, and individually packaging the disposable brew basket . . . to yield the predictable result of a more sanitary product protected against contamination” (*id.* at 22–23 (citing Ex. 1007 ¶¶ 37–39; Ex. 1009 ¶ 48)). For independent claims 27–29, Petitioner relies on its arguments for claim 1. Pet. 31–34.

For the packaging limitation of claim 1 and “similar features” recited by independent claims 27–29, Patent Owner responds that Luedtke “teaches nothing more than the specific concept of wrapping a filter in foil,” that “the point of wrapping the filter in foil is to prevent spoilage of the food product inside,” and that “[o]ne of ordinary skill would not read Luedtke as teaching providing a package for anything other than ground coffee because such other items *do not spoil* and *do not require freshness*.” PO Resp. 3–6 (citing Pet. 29, 31–34; Ex. 1004, Abstract, 2:70–71, 3:23–27, 3:29–31, Figs. 1, 3; Ex. 1009 ¶¶ 49–53; Ex. 2004 ¶¶ 47, 59). Patent Owner also argues that “it would not have been obvious to extend Luedtke’s teaching of wrapping a filter pack in foil to meet the claimed packaging limitations” and “there is no teaching or suggestion in Luedtke of wrapping anything other than a flexible filter in foil.” *Id.* at 7–9 (citing Ex. 1004, Figs. 1, 3; Ex. 2004 ¶¶ 60, 69). Patent Owner also asserts that “there is nothing in the other relied-upon references (Liu or Sylvan) that lends itself to being folded in the manner taught by Luedtke.” *Id.* at 9–10 (citing Ex. 1003, 3:8–10; Ex. 2002, 1; Ex. 2003, 16:10–17:2; Ex. 2004 ¶ 60).

Petitioner replies that Patent Owner “relies on the completely unsubstantiated ‘novelty’ of packaging a non-food item . . . that comes into contact with food.” Reply 9. Petitioner argues that “the manner of packaging products in ‘one package, as opposed to two packages or three packages is not a novel or patentable feature’” and that Luedtke discloses “filter devices 3 ‘may each be individually packaged in a package 23 of air tight material.’” *Id.* at 10 (quoting *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1309 (Fed. Cir. 2006); citing Ex. 1004, 3:39–42). Petitioner reiterates its assertion that it would have been obvious to extend Luedtke’s

teaching of packaging disposable articles to a disposable brew basket. *Id.* (citing Ex. 1007 ¶¶ 38–40; Ex. 1009 ¶ 49).

On the full record before us, for the reasons discussed above, we are persuaded that Liu, as modified by Sylvan, teaches or suggests a disposable brew basket. The full record before us also persuades us that Luedtke teaches or suggests the packaging limitations of independent claims 1 and 27–29.

We determine that Luedtke teaches individually packaging a disposable filter device 3. Ex. 1004, 3:38–42 (“a plurality of the devices 3 . . . each may be individually packaged in a packet **23**”); *see also* Pet. 25 (“Luedtke discloses that a plurality of devices 3 ‘ . . . may *each be individually packaged.*”); Ex. 1009 ¶ 41 (“a [person having ordinary skill in the art] would have recognized that Luedtke discloses individually packaging at least one filter device in a package, the package being separate from other packages (*e.g.*, a package that includes a brew basket)”; Ex. 2004 ¶ 51 (stating that Luedtke “describes that the filter could be packaged in an individual package or a plurality of them may be packaged in a can”). Dr. Slocum’s statement that “the technique of individually packaging a disposable filter device was well known in the art” is supported by Luedtke’s express teaching that filter devices 3 “may be individually packaged in a packet **23**.” Ex. 1004, 3:39–42; Ex. 1009 ¶ 48.

We also find that Luedtke relates to “a throw-away device” or a “disposable device.” Ex. 1004, 1:10–12, 1:36–38, 1:55–57, 1:61–63; *see also* Ex. 2004 ¶ 52 (stating “Luedtke discloses a one piece inexpensive disposable device that allows the user to drip brew a cup of coffee with only a coffee cup and hot water”) (citing Ex. 1004, 4:26–30).

We are persuaded that, in view of Luedtke’s express teaching that disposable filter devices 3 “each may be individually packaged in a packet 23” (Ex. 1004, 3:38–42), one of ordinary skill in the art at the time of the invention would have modified Liu and Sylvan to package individually a disposable brew basket to obtain a “more sanitary product protected against contamination,” as argued by Petitioner. Pet. 22–23 (citing Ex. 1007 ¶¶ 37–39; Ex. 1009 ¶ 48). Patent Owner’s expert acknowledges that separate packaging is used to prevent contamination but states that separate packaging is only for items that directly contact a person’s mouth and increases cost. Ex. 2004 ¶ 63 (“[s]eparate packaging is also used to prevent contamination of items that come into direct contact with a user’s mouth, such as a straw or cutlery”). A preponderance of the evidence supports a finding, therefore, that one of ordinary skill in the art would have considered contamination when contemplating separate packaging. *See* Pet. 22–23; Ex. 1009 ¶ 48; Ex. 2004 ¶ 63).

We are persuaded that the full record before us supports Petitioner’s assertion that one of ordinary skill would have extended Luedtke’s teaching of individually packaging “disposable” or “throw-away” filter devices 3 to a disposable brew basket. Paragraph 48 of the Slocum Declaration states, and we agree, that “modifying the combination of Liu and Sylvan according to the teachings of Luedtke would have used a known technique to improve similar devices in the same way” and thus, “it would have been obvious . . . to extend Luedtke’s known technique to also individually packaging a disposable brew basket (*i.e.*, a similarly disposable component to be used with a single-serving beverage machine), as taught by Liu and Sylvan, separate from any other components.” We agree that Luedtke teaches

individually packaging filter devices that are disposable like the brew basket of Liu, as modified by Sylvan. Pet. 25; Ex. 1004, 3:38–42.

Patent Owner’s arguments require that we determine that one of ordinary skill in the art would understand Luedtke only for its express teachings and that the teachings of Luedtke cannot be applied beyond its filter device 3. PO Resp. 4–9. However, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418. The full record before us provides no persuasive reason to determine that extending the individual packaging of disposable filters, as taught by Luedtke, to a disposable brew basket was beyond ordinary skill in the art. Also, Petitioner provides “an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* at 417–418. Petitioner asserts that Liu, Sylvan, and Luedtke would be combined to result in a “more sanitary product protected against contamination.” *See* Pet. 25. We find that Petitioner’s articulated reasoning has rational underpinning because the full record before us indicates that, as discussed above, individual packaging of disposable filter devices was known and contamination was a consideration for individual packaging. *See* Pet. 25; Ex. 1004, 3:39–42; Ex. 2004 ¶ 63. We are therefore satisfied that Petitioner provides “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418.

Patent Owner also argues that packaging of disposable articles is not a routine expedient or step. PO Resp. 10. The argument, however, fails to persuade us that one of ordinary skill would not have extended Luedtke’s

known technique to disposable brew baskets. *See* Pet. 25. Patent Owner's remaining arguments, regarding hospitality industry regulations advanced by Petitioner, are also not persuasive because we do not rely on those hospitality industry regulations in our analysis, given that no showing has been made that a skilled artisan would have been cognizant of the regulations. *See* PO Resp. 11–19 (citing Pet. 23; Ex. 1007 ¶¶ 3, 8, 20, 21, 29, 30, 35, 39–42, 44; Ex. 1009 ¶¶ 1, 8, 10–12, 43; Exs. 1015–1018; Ex. 2003, 8–9, 14:1–16, 18:2–21, 23:17–24:21; Ex. 2004 ¶¶ 70, 77, 79).

For the reasons explained above, we determine that Petitioner has shown by a preponderance of the evidence that the elements of claims 1 and 27–29 are taught by Liu, Sylvan, and Luedtke, and Petitioner provides articulated reasoning with rational underpinning for its proposed combination to support a conclusion of obviousness.

E. Dependent Claims 2–5, 8–18, and 20–25

Claims 2–5, 8–18, and 20–25 depend from claim 1, and Petitioner argues Liu teaches or suggests the limitations of claims 2–5, 8, 10–13, 15, and 20–22. Pet. 25–30 (citing Ex. 1002, 1:63–2:2, 2:13–15, 3:4–6, 3:9–13, 4:34–37, Fig. 2; Ex. 1009 ¶¶ 75–78, 80, 82–85, 87, 90, 92–94). Petitioner also argues that Liu and Sylvan teach or suggest the limitations of claims 9, 14, 17, 18, and 23–25. Pet. 27, 28–29, 30 (citing Ex. 1003, 1:49–51, 2:32–33, 4:16–19, Fig. 4; Ex. 1009 ¶¶ 42–45, 65–69, 86, 89, 90, 95–97).

Petitioner further argues that Liu, Sylvan, and Luedtke teach or suggest the limitations of claim 16. Pet. 28 (citing Ex. 1009 ¶ 88).

The Patent Owner Response provides no arguments specifically for these claims, other than those addressed above for claim 1, from which they depend. For the reasons stated above, Patent Owner's arguments do not

persuade us that Petitioner fails to show that claim 1 is unpatentable over Liu, Sylvan, and Luedtke.

Based on the full record before us, we determine that Petitioner has shown by a preponderance of the evidence that the limitations of dependent claims 2–5, 8–18, and 20–25 are taught or suggested by Liu, either alone or in combination with at least one of Sylvan and Luedtke, and Petitioner provides articulated reasoning with rational underpinning for combining Liu with Sylvan and Luedtke to support a conclusion of obviousness. *See* Pet. 25–30. We adopt Petitioner’s contentions as our findings with regard to the obviousness of these claims because the cited portions of the references reasonably support Petitioner’s assertions that the elements of these claims were known and Petitioner’s reason that would have prompted one of skill in the art to combine prior art elements in the way of these claims.

F. Objective Indicia of Non-Obviousness

Factual inquiries for an obviousness determination include secondary considerations based on objective evidence of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of non-obviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984).

Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17;

Leapfrog Enters., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1162 (Fed. Cir. 2007).

To be relevant, evidence of non-obviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). In that regard, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining non-obviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of producing evidence showing a nexus lies with the patent owner. *Id.*; *Prometheus Labs, Inc. v. Roxane Labs, Inc.*, 805 F.3d 1092, 1101–02 (Fed. Cir. 2015).

1. *Commercial Success*

Patent Owner provides arguments and evidence that Courtesy’s CV1 Program “embodies at least claim 27” and [i]ts tremendous success is rooted in its disposable brew baskets.” PO Resp. 41–48 (citing Ex. 1006, 548–559; Ex. 2004 ¶¶ 87–92; Exs. 2007–2008; Ex. 2018 ¶¶ 1, 2, 4–6, 18). Petitioner replies that Patent Owner has failed to establish a nexus between the claimed invention and commercial success because the claimed disposable brew baskets are not novel and were found in the prior art during prosecution. Reply 15–16 (citing Reply 4–8; Ex. 1006, 40–41).

Evidence of commercial success “is only significant if there is a nexus between the claimed invention and the commercial success.” *Ormco Corp.*, 463 F.3d at 1311–12. To establish a proper nexus between a claimed invention and the commercial success of a product, a patent owner must offer “proof that the sales [of the allegedly successful product] were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.” *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996).

Patent Owner states that the “Program includes a plurality of filter packs, an example of which is shown below as it is sold in a package with a disposable brew basket.” PO Resp. 43 (citing Ex. 2004 ¶ 90). Because Patent Owner’s evidence shows filter packs sold in a package with a disposable brew basket, we determine that Patent Owner’s arguments and evidence of commercial success do not show a nexus to independent claim 28, which recites “a package including at least one of the brew baskets separate from the filter packs,” and independent claim 29, which recites “packages that individually package each of the br[e]w baskets separate from one another and separate from the filter packs.”

Independent claim 27 recites “a sealed package containing a single disposable brew basket.” Patent Owner does not extend explicitly its arguments and evidence to claim 1. *See* PO Resp. 41–48. Considering Patent Owner’s arguments and evidence as to how its CV1 Program meets the limitations of claim 27 and how substantial sales are based on its disposable brew baskets (PO Resp. 42–45), we are not persuaded by Petitioner’s arguments that Patent Owner has failed to establish a nexus (Reply 15–16). Petitioner does not explain why the CV1 Program fails to

embody the claimed features or what claimed features are missing. Even though Patent Owner's evidence establishes a nexus between the commercial success of its CV1 Program and the recited disposable brew baskets, Patent Owner has failed to demonstrate that "the asserted commercial success of the product [is] due to the merits of the claimed invention *beyond what was readily available in the prior art.*" See *J. T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997) (emphasis added). As discussed above, the full record after trial establishes that disposable brew baskets recited in claims 1 and 27 were taught in the prior art. Further, Patent Owner's arguments and evidence focus on this single element of its claimed invention, and Patent Owner does not identify any evidence indicating that the claimed disposable brew baskets or any other claimed feature had unique properties or advantages beyond those found in the prior art relied on by Petitioner.

Based on the full record, we determine that Patent Owner's evidence for the secondary consideration of commercial success does not weigh against finding the challenged claims obvious in view of Liu, Sylvan, and Luedtke.

2. Copying

Patent Owner argues Petitioner "copied the disposable brew baskets in Courtesy's CV1® Program," "licensed the '037 patent," and "again copied the disposable brew baskets." PO Resp. 49–50 (citing Exs. 2012, 2013, 2015, 2017; Ex. 2018 ¶ 13).

Copying, as objective evidence of non-obviousness, requires evidence of effort to replicate a specific product. *Wyers v. Master Lock Co.*, 616 F.3d

1231, 1246 (Fed. Cir. 2010); *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004).

While Patent Owner presents evidence regarding the disposable brew basket limitations of independent claims 1 and 27–29, Patent Owner’s evidence of copying does not show sufficiently that Petitioner’s product is a copy of the patented technology. *See* Exs. 2012, 2013, 2015, 2017. For example, Patent Owner’s evidence does not show how Petitioner’s product includes the packaging limitations of independent claims 1 and 27–29. Patent Owner also has not pointed to any evidence showing that Petitioner copied Patent Owner’s claimed invention after expending effort to develop their own solution. *See Pentec, Inc. v. Graphic Cntrls. Corp.*, 776 F.2d 309, 317 (Fed. Cir. 1985) (alleged copying is not persuasive of nonobviousness when the copy is not identical to the claimed product, and the other manufacturer has not expended great effort to develop its own solution); *Vandenberg v. Dairy Equip. Co., a Div. of DEC Int’l, Inc.*, 740 F.2d 1560, 1567 (Fed. Cir. 1984) (evidence of copying found particularly persuasive where copyist had itself attempted for a substantial length of time to design a similar device, and failed). Accordingly, we determine that Patent Owner’s evidence for the secondary consideration of copying does not weigh against finding the challenged claims obvious in view of Liu, Sylvan, and Luedtke.

G. Conclusion as to the Obviousness Challenge

Having considered all of the evidence and contentions of the parties regarding the obviousness of claims 1–5, 8–18, 20–25, and 27–29, including secondary evidence and indicia of non-obviousness presented by Patent Owner, we determine that Petitioner has established by a preponderance of the evidence that claims 1–5, 8–18, 20–25, and 27–29 are unpatentable over

Liu, Sylvan, and Luedtke. The relatively weak secondary evidence of non-obviousness is insufficient to overcome the relatively strong evidence of obviousness presented by Petitioner. *See Sud-Chemie, Inc. v. Multisorb Techs., Inc.*, 554 F.3d 1001, 1009 (Fed. Cir. 2009) (“evidence of unexpected results and other secondary considerations will not necessarily overcome a strong prima facie showing of obviousness”).

IV. MOTION TO SEAL

Patent Owner seeks to seal Exhibit 2018 and portions of the Patent Owner Response that discuss Exhibit 2018. Paper 21, 2. Patent Owner also states that the “parties have agreed to the terms of the Default Protective Order located in Appendix B of the Trial Practice Guide.” *Id.* at 4.

Upon review, good cause exists to seal the above information. In addition, the Default Protective Order will be entered. We note that none of the sealed information was relied upon or disclosed in this Decision.

Because there is an expectation that information will be made public where the information is identified in a final written decision, confidential information that is subject to a protective order ordinarily would become public 45 days after final judgment in a trial, unless a motion to expunge is granted. 37 C.F.R. § 42.56; 77 Fed. Reg. at 48,761. In view of the foregoing, the confidential documents filed in the instant proceeding will remain under seal, at least until the time period for filing a notice of appeal has expired or, if an appeal is taken, the appeal process has concluded. The record for the instant proceeding will be preserved in its entirety, and the confidential documents will not be expunged or made public, pending possible appeal. Notwithstanding 37 C.F.R. § 42.56 and the Office Patent

Trial Practice Guide, neither a motion to expunge confidential documents nor a motion to maintain these documents under seal is necessary or authorized at this time. *See* 37 C.F.R. § 42.5(b).

V. MOTION TO EXCLUDE

Petitioner moves to exclude the Ball Declaration (Ex. 2004) “because he does not qualify as an expert either in the lodging industry or the field of hotel management,” Exhibit 2002 “because the document is not from the relevant time period,” and Exhibits 2007–2011 and 2013–2018 “because they are not relevant to the patentable limitations” and “consist[] of publications citing hearsay statements of third parties.” Paper 35, 1–2, 5, 7–8. Patent Owner filed an opposition to Petitioner’s motion to exclude (Paper 38, “Opp.”), and Petitioner filed a reply to the opposition (Paper 39).

After considering the parties’ arguments, we find that Mr. Ball is qualified sufficiently to testify as an expert witness “in the field of designing coffee brewers,” as argued by Patent Owner. Opp. 5; Ex. 2004 ¶¶ 4–24. As discussed above, we considered his testimony against the full record and found it to be unpersuasive in some instances. We, therefore, decline to exclude Mr. Ball’s testimony, and instead, give it appropriate weight where it is in conflict with other evidence. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another “unless no reasonable trier of fact could have done so”); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”).

We also do not rely on any of Exhibits 2002, 2007–2011, and 2013–2018. These exhibits are cited to indicate where Patent Owner finds support for its arguments. We, thus, deny the motion to exclude.

VI. CONCLUSION

For the foregoing reasons, based on the full record before us, we are persuaded that Petitioner has demonstrated, by a preponderance of the evidence, that, under 35 U.S.C. § 103, claims 1–5, 8–18, 20–25, and 27–29 of the '037 patent are unpatentable over Liu, Sylvan, and Luedtke.

VII. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–5, 8–18, 20–25, and 27–29 of U.S. Patent No. 7,311,037 B2 have been shown, by a preponderance of the evidence, to be unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Seal is *granted*;

FURTHER ORDERED that the Default Protective Order (Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, App. B (Aug. 14, 2012)) is entered;

FURTHER ORDERED that the information sealed in this Decision remain under seal, and the record preserved, until the time period for filing a notice of appeal of this Decision has expired or, if an appeal is taken, the appeal process has concluded;

FURTHER ORDERED that Petitioner's Motion to Exclude is *denied*; and

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

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