

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NESPRESSO USA, INC.,
Petitioner,

v.

K-FEE SYSTEM GMHB,
Patent Owner.

IPR2022-01574
Patent 11,254,491 B2

Before GRACE KARAFFA OBERMANN, JAMES J. MAYBERRY, and
ERIC C. JESCHKE, *Administrative Patent Judges*.

MAYBERRY, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Petitioner, Nespresso USA, Inc., filed a Petition (“Pet.”) requesting *inter partes* review of claims 1–13 (“Challenged Claims”) of U.S. Patent No. 11,254,491 B2 (Ex. 1001, the “’491 patent”). Pet. 1. Patent Owner, K-fee System GmbH, filed a Preliminary Response (“Prelim. Resp.”) to the Petition. Paper 8. With our authorization, Petitioner filed a Preliminary Reply (Paper 10, “Prelim. Reply”) and Patent Owner filed a Preliminary Sur-reply (Paper 11, “Prelim. Sur-reply”).

We have authority under 35 U.S.C. § 314 to determine whether to institute review. *See also* 37 C.F.R. § 42.4(a) (2021) (permitting the Board to institute trial on behalf of the Director). To institute an *inter partes* review, we must determine that the information presented in the Petition shows “a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged in the petition.” 35 U.S.C. § 314(a) (2018). For the reasons set forth below, upon considering the Petition, Preliminary Response, Preliminary Reply, Preliminary Sur-reply, and evidence of record, we institute an *inter partes* review.

B. *Real Parties-in-Interest*

Petitioner identifies itself and Nestle USA, Inc., Nestle Nespresso SA, and Societe Des Produits Nestle SA as the real parties-in-interest. Pet. 82.

Patent Owner identifies itself as the sole real party-in-interest. Paper 4, 2. Patent Owner adds that it “is a wholly owned subsidiary of Kruger GmbH & Co. KG, along with Kruger North America, Inc.” *Id.*

C. *Related Matters*

The ’491 patent is the subject of litigation in the U.S. District Court for the Central District of California, in a case styled *K-Fee System GmbH v.*

Nespresso USA, Inc., Case No. 2:22-cv-00525-GW. Pet. 82; Paper 4, 2; *see* Ex. 1048 (identifying the court as the U.S. District Court for the Central District of California).

D. The '491 Patent

The '491 patent, titled “Portion Capsule Having an Identifier,” issued February 22, 2022, from an application filed July 23, 2021, and ultimately claims priority to three German patent applications, the earliest of which was filed July 22, 2010. Ex. 1001, codes (54), (45), (22), (30). The application that matured into the '491 patent is related, through a series of continuation and divisional applications, to application No. PCT/EP2011/003677, filed on July 22, 2011. *Id.* at code (60).

The '491 patent is directed to “a portion capsule for producing a beverage.” Ex. 1001, 1:6–7. We reproduce Figure 2A from the '491 patent below.

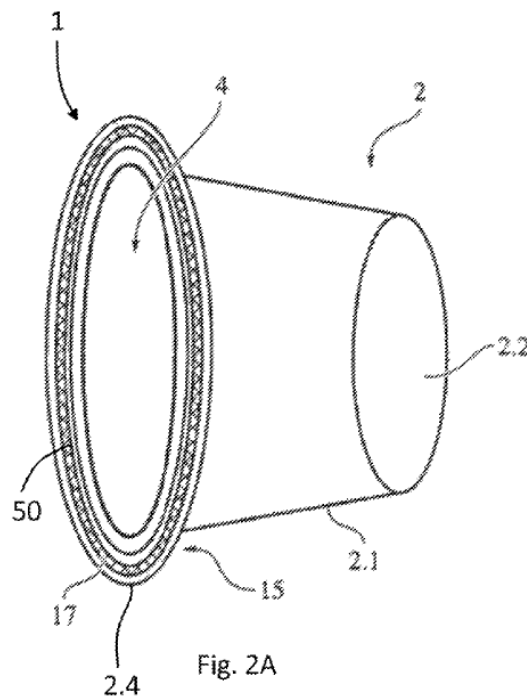


Figure 2A depicts “a portion capsule containing a barcode.”

Ex. 1001, 7:31–32. Portion capsule 1 includes base element 2 with wall region 2.1 and bottom area 2.2. *Id.* at 8:44–47. Portion capsule 1 includes barcode 50 on the top surface of membrane 4. *Id.* at 8:47–48. Alternatively, barcode 50 could be placed on the edge region of flange 17, opposite membrane 4, as indicated by arrow 15. *Id.* at 8:54–56. “Such a barcode is read out by a detector 13 placed, for example, in the media chute. The barcode represents the identifier according to invention.” *Id.* at 8:57–59.

We reproduce Figures 16A and 17A from the '491 patent below.

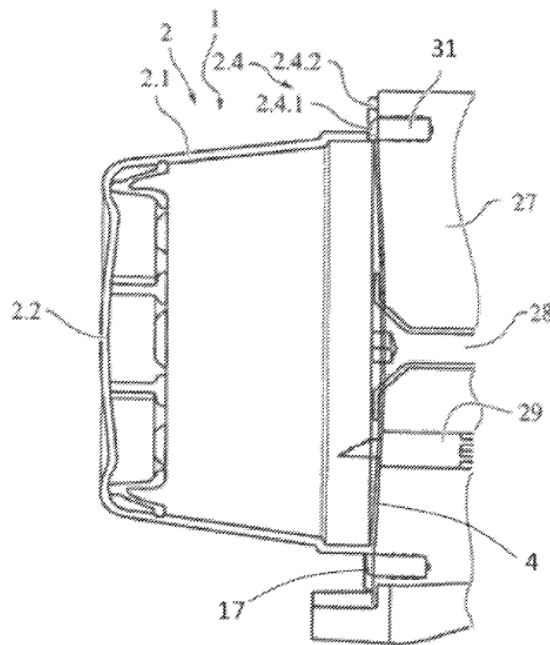


Fig. 16A

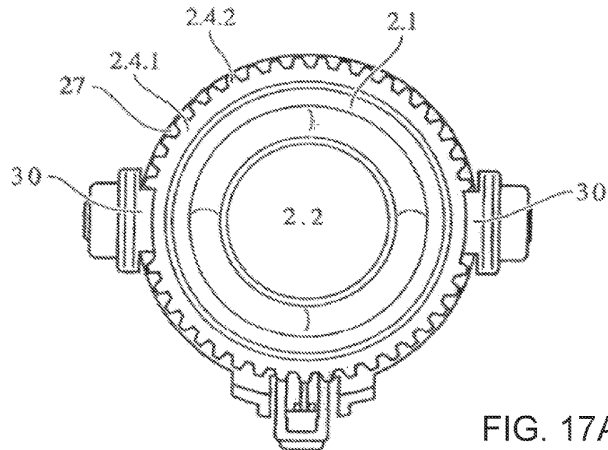


FIG. 17A

Figure 16A depicts “a portion capsule with a gearwheel placed in the brewing chamber,” and Figure 17A depicts an embodiment of the portion capsule of Figure 16A Ex. 1001, 7:58–61. These figures show flange 17/edge region 2.4 that includes a structure for fit locking, friction locking and/or detection 2.4.2 in the outer area (that is, the outer circumference of flange 17/edge region 2.4). *Id.* at 10:19–24. In this example, the structure is a gearwheel that is formed by several recesses/bulges evenly arranged in the edge region. *Id.* at 10:24–28. As seen in Figure 17A, portion capsule 1 is held by two holding arms 30, which interact with the gearwheel structure. *Id.* at 10:42–45. Without this structure, the holding arms do not hold the portion capsule and the portion capsule is not inserted into the brewing chamber. *Id.* at 10:45–48.

E. Illustrative Claim

Of the Challenged Claims, claims 1, 7, and 10 are independent claims. Claim 1 is representative and we reproduce it below.

1. A beverage system for making a beverage, comprising:
 - A) a single-serve capsule comprising:
 - i) a base element with a cavity, in which a beverage material is provided, the base element being symmetrical about a central longitudinal axis thereof and having a rounded bottom portion;

- ii) a flange extending outwardly from the base element, the flange comprising a top side and an opposing bottom side;

- iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

- iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

- v) an identifier, which includes a repeat pattern, provided on the bottom side of the flange;

- B) a beverage machine comprising:

- i) a sensor/detector;

- ii) a receptacle configured to receive the single-serve capsule;

- iii) a pump controlled to supply water into the single-serve capsule only upon detection of the identifier by the sensor/detector and a determination by the beverage machine that the single-serve capsule is suitable for use with the beverage machine;

- iv) a chamfered mandrel that is configured to pierce the cover at the location that is offset from the central longitudinal axis;

- v) a groove that is laterally offset from the chamfered mandrel; and

- vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between a peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel.

Ex. 1001, 12:59–13:30.

F. Prior Art and Asserted Grounds

Petitioner asserts that the Challenged Claims are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §¹	References/Basis
1, 4–6	103(a)	Yoakim, ² Jarisch '929, ³ Rossi ⁴
2, 3, 7–13	103(a)	Yoakim, Jarisch '929, Rossi, Castellani ⁵

Pet. 30.

Petitioner also relies on the declaration testimony of Michael Jobin. *See* Ex. 1003 (providing the Declaration).

The following subsections provide brief descriptions of the asserted prior art references.

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011), took effect on September 16, 2011. The changes to 35 U.S.C. §§ 102 and 103 in the AIA do not apply to any patent application filed before March 16, 2013. Because neither party, at this juncture, disputes that the application for the patent at issue in this proceeding has an effective filing date before March 16, 2013, we refer to the pre-AIA version of the statute. *See* Pet. 35 (arguing that the earliest possible priority date for the '491 patent is July 22, 2011); Prelim. Resp. 35 (arguing that the priority date for the '491 patent is September 2, 2010).

² Yoakim et al., US 2010/0239734 A1, published September 23, 2010 (Ex. 1004, “Yoakim”).

³ Jarisch et al., US 2013/0064929 A1, published March 14, 2013 (Ex. 1006, “Jarisch '929”). Petitioner includes “929” when referring to Exhibit 1006, to distinguish it from Exhibit 1005, where Jarisch is also the first named inventor. We adopt this convention for our Decision.

⁴ Rossi, WO 2010/099806 A1, published September 10, 2010 (Ex. 1041, “Rossi”).

⁵ Castellani, US 2008/0105131 A1, published May 8, 2008 (Ex. 1009, “Castellani”).

1. Yoakim

Yoakim, titled “Method for Preparing a Beverage or Food Liquid and System Using Brewing Centrifugal Force,” published September 23, 2010, from an application filed May 7, 2010. Ex. 1004, codes (54), (43), (22). Yoakim “relates to a capsule, device, system and method for preparing a beverage or food liquid from a food substance which is brewed or extracted by using centrifugal forces exerted on a capsule which contains the substance.” *Id.* ¶ 2.

Yoakim’s device identifies different capsules and operates its beverage device based on predetermined parameters for the identified capsule. Ex. 1004 ¶ 25; *see, e.g., id.* ¶ 192 (“[T]he control unit may be associated to a capsule recognition system enabling to recognize the types of capsules, i.e., espresso, lungo, cappuccino, long coffee (e.g., 180-400 ml), latte, tea, etc., and to adjust the speed and/or other brewing parameters (e.g., water temperature) according the capsule which is inserted in the device.”). “A recognition system uses a code on the capsule and recognized by the device, such as a color, a barcode, an RFID, a magnetic code, ferromagnetic micro-wires or labels, shapes and combinations thereof.” *Id.* ¶ 192.

We reproduce Yoakim’s Figure 1, below.

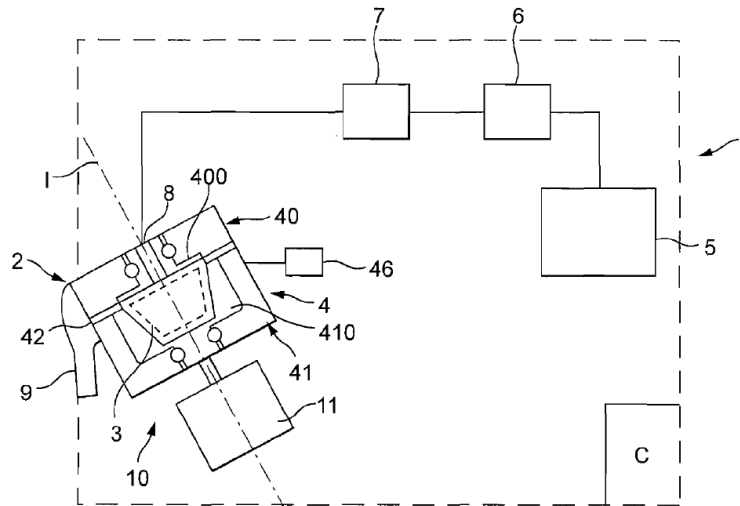


FIG. 1

Figure 1 depicts “a schematic representation of [Yoakim’s] system.” Ex. 1004 ¶ 30. System 1 includes device 2 and capsule 3, with device 2 having brewing module 4, which receives capsule 2 for brewing. *Id.* ¶ 180. After brewing, the capsule is removed and discarded. *Id.* Module 4 is connected to water reservoir 5, with the water delivered to module 4 by low pressure pump 6. *Id.* Water heater 7 heats the water to the desired temperature for the capsule. *Id.*

2. Jarisch '929

Jarisch '929, titled “Support and Capsule for Preparing a Beverage by Centrifugation, System and Method for Preparing a Beverage by Centrifugation,” published March 14, 2013, from an application filed May 12, 2011. Ex. 1006, codes (54), (43), (22). Jarisch '929 “relates in particular to coding supports adapted to store information related to a capsule, capsules associated with/or embedding coding supports, reading and processing arrangements for reading and using such information for preparing a beverage.” *Id.* ¶ 1.

Jarisch '929's Figure 2 is relevant to our analysis and is reproduced below.

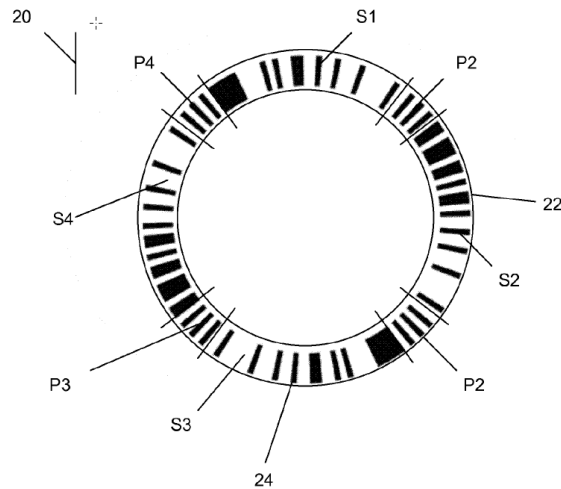


Fig. 2

Figure 2 depicts support 20, which is part of the beverage capsule. Ex. 1006 ¶ 51. Support 20 includes “section 22 on which at least one sequence S1, S2, S3, S4 of symbols 24 is represented so as that each symbol is sequentially readable, by a reading arrangement of an external device,” with “each sequence coding a set of information related to the capsule.” *Id.* The information may include “information related to parameters for preparing a beverage with the capsule,” “information for retrieving locally and/or remotely parameters for preparing a beverage with the capsule,” “information related to the manufacturing of the capsule,” or “information for retrieving locally and/or remotely information related to the manufacturing of the capsule.” *Id.* ¶¶ 52–55. “The sequence is preferably repeated along the circumference in order to ensure a reliable reading.” *Id.* ¶ 68.

“The support can be part of, or be formed directly on, the body of the capsule. The support can also be disposed on the bottom side of the rim of

the capsule.” Ex. 1006 ¶ 64; *see, e.g., id.* ¶ 90 (“[C]apsule 7 may comprise a support mounted having at least one sequence 70, and mounted on the bottom side 72 of the rim 73 of the capsule.”).

3. *Rossi*

Rossi, titled “System of Edible-Product Making Machine and Load Element and Process for Control of Machine,” published September 10, 2010. Ex. 1041, codes (54), (43). Rossi “relates to a system of an edible-product making machine and a load element [(e.g., a capsule containing coffee powder)], and a process for controlling the operation of the edible-product making machine.” Ex. 1041, 1.⁶

Relevant to our analysis here, Rossi states that using the wrong capsule or operating conditions “may cause the machine to malfunction and can prejudice the safety and integrity of the machine and the may harm the user.” Ex. 1041, 3. To address this and other concerns, Rossi discloses a process for controlling the operation of an edible-product making machine, with a first step of recognizing an identifying element and a validation element, a second step of validating the validation element, and a third step of operating the machine only if the identifying element is recognized and the validation element is validated. *Id.* at 4. Rossi explains that

The use of an identification element and recognition means, as well as the step of recognising the identification element allows the machine to recognise the load element and, hence, its contents. This in turn enables the machine to automatically select the operating conditions appropriate for that specific load element. This prevents the user from having to verify the contents of the load element, and from having to know and select

⁶ Consistent with Petitioner, we reference the pagination for the WO document, rather than the exhibit. For example, we cite to “Ex. 1041, 1” for page 1 of the publication, which appears on page 3 of the exhibit.

the operating conditions appropriate therefor. It also helps to prevent the safety hazard associated with the use of inappropriate operating conditions.

Id. at 5.

4. *Castellani*

Castellani, titled “Delivery Head for Espresso Coffee Machines,” published May 8, 2008. Ex. 1009, codes (54), (43). Relevant to Petitioner’s unpatentability positions, Castellani provides “a delivery head, in which the single-use or disposable capsule loading and unloading operations can be performed in a very easy and safe manner, from a user standpoint.” *Id.* ¶ 10. For example, during operation, “capsule 10 will slide on the fork element 21 and, after having passed the annular portion 22, will fall inside the fork element 21 and, through a specifically designed passage, will be collected in a collecting vessel.” *Id.* ¶ 54; *see, e.g., id.* Fig. 2 (depicting an embodiment of the delivery head in the capsule ejecting position).

II. ANALYSIS

A. *Legal Standards*

Section 103(a) forbids issuance of a patent when “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). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when available, evidence

such as commercial success, long felt but unsolved needs, and failure of others.⁷ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *see KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”). The Court in *Graham* explained that these factual inquiries promote “uniformity and definiteness,” for “[w]hat is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context.” 383 U.S. at 18.

The Supreme Court made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To support this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires 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.” *Id.*

“[O]bviousness must be determined in light of *all the facts*, and . . . a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine” teachings from multiple references. *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165

⁷ The parties do not direct us to any objective evidence of non-obviousness at this stage of the proceeding.

(Fed. Cir. 2006) (emphasis added); *see also PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1196 (Fed. Cir. 2014) (“The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact.”). As a factfinder, we also must be aware “of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *KSR*, 550 U.S. at 421.

B. Level of Ordinary Skill in the Art

The level of skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). “This reference point prevents . . . factfinders from using their own insight or, worse yet, hindsight, to gauge obviousness.” *Id.* Factors pertinent to a determination of the level of ordinary skill in the art include: (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of workers active in the field. *Env’t Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696–97 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). In determining a level of ordinary skill, we also may look to the prior art, which may reflect an appropriate skill level. *Okajima*, 261 F.3d at 1355.

Petitioner contends that a person of ordinary skill in the art would have had “a bachelor’s degree in engineering plus five years of experience in

design of mechanical beverage systems, or similar products.” Pet. 27 (referencing Ex. 1003 ¶ 40).

Patent Owner contends that a person of ordinary skill in the art would have had

a bachelor’s degree in mechanical or industrial engineering, or a closely related field, with two years of experience in design of cartridge systems having mechanical and electrical components, and experience with machine vision systems (such as barcode readers). Additional education might substitute for some of the experience, and substantial experience might substitute for some of the educational background.

Prelim. Resp. 9. Patent Owner does not provide any support for this contention.

For purposes of this Decision, based on the prior art, the sophistication of the technology at issue, and Mr. Jobin’s Declaration testimony, we preliminarily adopt Petitioner’s definition of the level of ordinary skill, but include that a person having ordinary skill in the art would have had experience with sensors for recognizing an identifier.

The challenged claims, and many of the prior art references, are directed to a beverage system, not merely a cartridge system. *See, e.g.*, Ex. 1001, 12:59–13:30 (providing claim 1, which is directed to a “beverage system” and recites limitations directed to “a single-serve capsule” and “a beverage machine”); Ex. 1004 ¶ 2 (relating to “a capsule, device, system and method for preparing a beverage or food liquid from a food substance which is brewed or extracted by using centrifugal forces exerted on a capsule which contains the substance”); Ex. 1006 ¶ 1 (relating “to a capsule, capsules associated with/for embedding coding supports, reading and processing arrangements for reading and using such information for preparing a beverage”); Ex. 1041, 1 (relating “to a system of an edible-

product making machine and a load element, and a process for controlling the operation of the edible-product making machine”). The ’491 patent, as well as the prior art of record, includes systems that use identifiers on a capsule to control the operation of a beverage machine. *See, e.g.*, Ex. 1001, 1:28–34 (“[T]he present invention . . . has an identifier, which allows to individualize the respective portion capsule.”); Ex. 1004 ¶ 25 (discussing the system’s “identification means”); Ex. 1006 ¶ 1 (“The present invention relates in particular to coding Supports adapted to store information related to a capsule, capsules associated with/for embedding coding supports, reading and processing arrangements for reading and using such information for preparing a beverage.”); Ex. 1041, code (57) (“The process for controlling the operation of an edible-product making machine [includes] . . . “recogni[zing] an identifying element . . .”).

C. *Claim Construction*

We construe each claim “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b).” 37 C.F.R. § 42.100(b). Under this standard, claim terms are generally given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc) (“We have frequently stated that the words of a claim ‘are generally given their ordinary and customary meaning.’” (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996))).

Petitioner contends that it “applies, for purposes of this IPR petition, the apparent interpretations that Patent Owner offered in District Court in its infringement contentions.” Pet. 27–28. Petitioner then provides certain

examples. *Id.* at 28–30. Petitioner concludes “that for this proceeding, no claim terms require formal construction.” *Id.* at 30.

Patent Owner states that, “[f]or purposes of this Preliminary Response, Patent Owner believes claim construction is unnecessary presently to resolve the issues before the Board.” Prelim. Resp. 9.

We agree with Petitioner and Patent Owner that, for the purposes of this Decision, we need not expressly construe any claim terms to resolve the parties’ disputes. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms that . . . are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). To the extent that the scope of any particular claim term requires discussion, however, we provide it in our assessment of the challenges.

D. Priority date for the ’491 patent

“A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent . . . only on the basis of *prior art* consisting of patents or printed publications.” 35 U.S.C. § 311(b) (emphasis added). As such, whether an asserted reference qualifies as prior art is a threshold issue in evaluating a petitioner’s grounds of unpatentability. Here, whether Jarisch ’929 is prior art to the ’491 patent implicates all of Petitioner’s challenges. This issue turns on whether the claims of the ’491 patent are entitled to priority to any of the three foreign applications to which priority is claimed. Petitioner argues that the earliest application to which the ’491 patent is entitled priority is PCT/EP2011/003677, filed on July 22, 2011. Pet. 35; *see also* Ex. 1001, code (60) (showing the PCT application as the first related U.S. application). Patent Owner argues that

the claims are entitled to priority to “the second German application.” Prelim. Resp. 35 (meaning DE 10 2010 044 251.8 (*see* Ex. 1001, code 30)); *see also* Ex. 1047 (providing the second German application and including an English translation). If Patent Owner is correct, then Jarisch ’929 is not prior art and all of Petitioner’s unpatentability positions fail.

1. Petitioner’s arguments with respect to priority

Petitioner contends that the second German application fails to provide written description support for the claim limitation “an identifier, which includes a repeat pattern, provided on the bottom side of the flange.”⁸ Pet. 36. Petitioner argues that, although the second German application makes “a passing reference to a ‘repeat pattern,’” no embodiment includes an identifier with a repeat pattern on the bottom side of a flange. *Id.* at 36–37.

Petitioner explains that the second German application, in describing the embodiment of Figure 1, which uses raised areas as an identifier, describes how the identifier influences the operation of the brewing machine and further states that this description “applies to all other examples.” Pet. 37–38. Petitioner argues this description would not indicate to a person having ordinary skill in the art that multiple embodiments of identifiers could be combined. *Id.* at 38 (referencing Ex. 1003 ¶ 159). Mr. Jobin testifies that

A person of ordinary skill in the art would understand this language to explain that any of the disclosed identifier configurations would operate to influence machine operation in the same way—not that multiple distinct machine embodiments would be combined with one another. This is because multiple

⁸ This limitation appears in independent claims 1, 7, and 10. *See* Ex. 1001, 13:9–10, 13:62–63, 14:52–53.

distinct identifier embodiments are unnecessary or confusing for the system to operate, and in many cases could not physically be combined in a sensible manner.

Ex. 1003 ¶ 159; *see also id.* ¶ 31 (“This Declaration sets forth the opinions that I have formed related to the ’491 Patent based on my personal knowledge, education, research, personal and professional experience, and the information I have reviewed as of the date of this Declaration.”).

2. Patent Owner’s responsive arguments with respect to priority

Patent Owner responds that the embodiment disclosed in Figures 16 and 17 of the second German application provides written description support for every limitation of the Challenged Claims. Prelim. Resp. 35. Patent Owner contends that the repeated gear-toothed ring depicted in Figure 17C is the recited identifier. *Id.* at 42. We reproduce Figure 17c from the ’491 patent below.⁹

⁹ We must determine if the second German application provides adequate written description support. For the purposes of this Decision only, we make no judgment on the quality of the drawings in the second German application and whether the drawings, coupled with the description, are sufficiently clear to adequately convey what is shown in Figure 17C. We reproduce Figure 17C from the ’491 patent because it is clearer than the version in the second German application and helps to illustrate Patent Owner’s position.

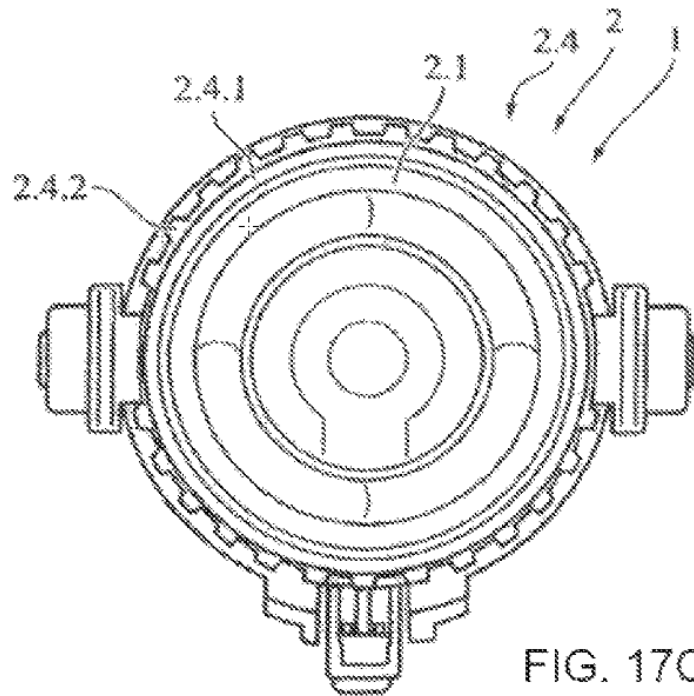


FIG. 17C

Figure 17C depicts an embodiment of the portion capsule of Figures 16A and 16B. Ex. 1001, 7:61–61; *cf.* Ex. 1047, 36:33–34. Figure 17C depicts a gear-toothed ring with 29 teeth. Ex. 1047, 41:37–42:5. The second German application states that “annular peripheral region 2.4 . . . has, in its outer region, a form-fitting and/or friction fitting means and/or a detection means 2.4.2.” *Id.* at 41:19–24. The second German application adds that

portion capsule 1 is retained on a part of the brewing chamber 27 by means of two retaining arms 30. These retaining arms 30 interact with the means 2.4.2[, that is, the gear-toothed ring]. If this means was not present, the retaining arms could not retain the capsule and the capsule, rather than being introduced into the brewing chamber, would drop through into a waste container. Consequently, the retaining arms 30 also act as a guide.

Id. at 42:6–14.

Patent Owner also directs us to statements in the second German application that Patent Owner contends support its argument that the

embodiment of Figures 16 and 17C provides written description support for the identifier limitation. Prelim. Resp. 37. Specifically, Patent Owner directs us to a statement that says “that ‘[t]he invention will be explained hereinbelow with reference to figures 1-18. These explanations do not have a limiting effect on the general concept of the invention.’” *Id.* (quoting Ex. 1047, 35). Patent Owner also argues that “[a]fter the general description of the invention, including numerous different examples of identifiers, as well as the complete description of Figure 1, the application states that, ‘[w]hat has been said in relation to the identifier applies to all other examples.’” *Id.* (quoting Ex. 1047, 38). Patent Owner adds that the next example—the embodiment of Figure 2—provides disclosure about the location of the identifier on a capsule. *Id.*

Patent Owner also argues that the claims appearing at the end of the second German application provide written description support for the recited identifier. Prelim. Resp. 37. Patent Owner argues that the “second German application . . . provides guidance for how to combine” the different elements recited in the multiple-dependent claims that appear in the second German application. *Id.* at 37–38. Patent Owner continues that “the multiple dependent claims corroborate that the inventor envisioned that, for this particular invention, features of one illustrative embodiment had applicability to other embodiments and such embodiments were linked and indeed combinable.” *Id.* at 38. Patent Owner concludes by stating that “Petitioner has pointed to nothing in the application that would prevent the linkage of the embodiments.” *Id.*

Patent Owner also argues that, in a related application, an examiner confirmed that the second application provided written description support for the claims at issue in that application. Prelim. Resp. 32–35; *see, e.g., id.*

at 33 (reproducing the examiner’s statement from an Office Action for the application).

3. Petitioner’s reply arguments and Patent Owner’s sur-reply arguments with respect to priority

Petitioner replies that the gear-wheel structure 2.4.2 of Figures 16 and 17C does not satisfy the requirement of a repeat pattern on the bottom side of the flange. Prelim. Reply 6. First, Petitioner argues that a “repeat pattern” is described for an identifier printed with ink, not the toothed ring structure on which Patent Owner relies. *Id.* at 7. Second, Petitioner argues that the toothed ring structure is on the outer circumference of the flange, not the bottom surface. *Id.* at 7–8 (referencing Ex. 1047, 35:9–11, 41; Ex. 1001, 10:22–24; Ex. 1003 ¶¶ 162–163).

Petitioner also replies that the “catchall” statements in the second German application fail to support Patent Owner’s position. Prelim. Reply 8. Petitioner argues, with respect to the “what has been said” statement, that the statement follows a description of how the machine operates using the identifier. *Id.* Petitioner argues that Patent Owner’s reliance on the statement “is illogical and contrary to the disclosure” as each example provides a specific type of identifier. *Id.* Petitioner adds that the second German application does not say that different identifiers could be combined. *Id.*

Petitioner also argues that the multiple dependent claims in the second German application do not provide written description support for the recited identifier. Prelim. Reply 9. Petitioner argues that none of the claims are directed to an identifier having a repeat pattern on the bottom of the flange. *Id.*

Patent Owner replies that the Office “already found that the *very limitations challenged by Petitioner* were disclosed by the second German application.” Prelim. Sur-reply 7. Patent Owner argues that the gear teeth of structure 2.4.2 is an identifier, with the teeth providing a repeat pattern. *Id.* at 8. Patent Owner argues that Mr. Jobin testified that the structure was an identifier. *Id.* (referencing Ex. 1003 ¶ 163).

Patent Owner argues that “[t]he specification of the second German application explains that this repeated teeth pattern can be detected by a rotary sensor or by a camera. The camera is described as being in the ‘insertion shaft’ which is below the capsule and thereby confirms that the identifier is on the bottom side of the flange.” Prelim. Sur-reply 8–9.

Patent Owner repeats its argument with respect to the statement “[w]hat has been said in relation to the identifier applies to all other examples” applies to the statement in the introductory portion of the application about repeat patterns. Prelim. Sur-reply 9–10.

4. *Analysis and conclusions*

“[A] patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides [written description] support for the claims of the later application, as required by 35 U.S.C. § 112.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008); *see also In re NTP, Inc.*, 654 F.3d 1268, 1276 (Fed. Cir. 2011) (“[A] patent’s claims are not entitled to an earlier priority date merely because the patentee claims priority. Rather, for a patent’s claims to be entitled to an earlier priority date, the patentee must demonstrate that the claims meet the requirements of 35 U.S.C. § 120.” (citations omitted)). The written-description inquiry is a question of fact, is context-specific, and must be determined on a case-by-case basis. *Ariad*

Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The test for sufficiency of support is whether the disclosure of the application relied upon “reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). “One shows that one is ‘in possession’ of the invention by describing the invention, with all its claimed limitations” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

We determine that Patent Owner has not demonstrated, at this stage of the proceeding, that the Challenged Claims are entitled to claim priority to the second German application, and, as such, Jarisch ’929 is prior art on the current record. We determine that Patent Owner has not sufficiently demonstrated that the second German application provides written description support for at least the identifier as recited in independent claims 1, 7, and 10.

We determine, at this stage of the proceeding and on the current record, that the embodiment of Figures 16, 17, and 18 does not show an identifier with a repeat pattern on the bottom side of the flange as required by the claims. The disclosure of the second German application explains that the means 2.4.2 is a toothed ring, with the teeth formed in the outer circumference of the flange, not on the bottom of the flange. *See, e.g.*, Ex. 1047, 41:17–27 (explaining that the annular peripheral region 2.4 has “*in its outer region*” means 2.4.2 (emphasis added)); *id.*, Fig. 18 (showing that the outer edge of the flange interacts with pinion 24).

We are also not convinced that the toothed ring represents a repeat pattern as that term is used in the second German application. As Petitioner argues, the use of the phrase “repeat pattern” is associated with an ink-

printed identifier. Prelim. Reply 7; Ex. 1007, 33. It is not clear, on the current record, that the term “repeat pattern” would encompass a physical arrangement of gear-like teeth, as neither party has offered a construction of the claim term.

We do not agree with Patent Owner, based on our review of the current record, that a description in the second German application that a camera is in the insertion shaft means that it is imaging the bottom side of a capsule’s flange. As illustrated by the arrows in Figure 18, a capsule is inserted into the insertion shaft with its side as the leading edge. That is, a camera, if indeed positioned in the insertion shaft, would image the side of the capsule. *See* Ex. 1047, Fig. 18 (including an arrow showing a capsule moving towards the bottom of the image).

We also do not agree, on the current record, that the broadening language in the second German application on which Patent Owner relies supports a finding of adequate written description. *See* Prelim. Resp. 37. As to the statement “[t]he invention will be explained hereinbelow with reference to figures 1-18. These explanations do not have a limiting effect on the general concept of the invention,” this statement reflects language commonly found in patent specifications—that the claims are not limited to the specific disclosed embodiments. This language does not, in and of itself, indicate that the inventors were in possession of an invention that combines multiple embodiments. *Cf. D Three Enterprises, LLC v. SunModo Corp.*, 890 F.3d 1042, 1051 (Fed. Cir. 2018) (“This boilerplate language at the end of the 2009 Application’s specification is not sufficient to show adequate disclosure of the actual combinations and attachments used in the Washerless Claims.”).

As to the statement “[w]hat has been said in relation to the identifier applies to all of the other examples,” we agree with Petitioner that this statement should be read in context with the description of how the identifier is used—“compared with a reference identifier.” *See* Prelim. Reply 8; Ex. 1047, 37–38. First, the statement appears after the discussion of the embodiment of Figure 1, which indicates that the statement concerns what is said in that description, rather than general statements about identifiers that appear five pages prior. Second, the subsequent descriptions of identifiers do not provide a description of comparing to a reference identifier before operation begins. As such, it seems logical, on the current record, that it is the description of comparing to a reference identifier as part of the operation process that applies to other examples.

Also, we do not agree with Patent Owner that the multiple dependent claims in the second German Application support a finding that a person having ordinary skill in the art would have understood that the different embodiments of identifiers could be combined to provide written description support for the Challenged Claims. *See* Prelim. Resp. 37–38. The claims in the second German application recite a disparate collection of physical, optical, electrical, and mechanical identifiers. *See, e.g.*, Ex. 1047, 46 (including claim 3, reciting an identifier that “has a concavity (7) and/or a convexity (8)”; *id.* (including claim 6, reciting an identifier that “is a machine-readable print”); *id.* (including claim 7, reciting an identifier that “is an electrically conductive region”); *id.* at 47 (including claim 10, reciting an identifier that “is an RFID”); *id.* (including claim 14, reciting “a form-fitting means, friction-fitting means and/or detection means” without indicating that such a structure is an identifier). Many of the claims establish multiple dependency by reciting “one of the proceeding claims,”

which establishes a complex web of possible combinations. *See, e.g.*, Ex. 1047, 47 (including claims 8–13, each of which recites “as claimed in one of the preceding patent claims”). The detailed description in the second German application provides no guidance as to how these different types of identifiers could be combined and, as such, does not convey that the inventors were in possession of the invention claimed in the ’491 patent.¹⁰

For the reasons above, we determine, on the current record, that the information in the Petition demonstrates a reasonable likelihood that Jarisch ’929 is prior art to the ’491 patent.

E. Ground 1: Claims 1 and 4–6 as unpatentable over Yoakim, Jarisch ’929, and Rossi

Petitioner contends that the combination of Yoakim, Jarisch ’929, and Rossi teaches or suggests each limitation of claims 1, and 4–6. Pet. 30, 43–73. We first address Petitioner’s reasons for combining the teachings of Yoakim, Jarisch ’929, and Rossi, then the challenged claims under Ground 1.

1. Petitioner’s proposed combination of Yoakim, Jarisch ’929, and Rossi

We first analyze Petitioner’s reasoning for combining the teachings of Yoakim, Jarisch ’929, and Rossi to arrive at the subject matter of the claims challenged in Ground 1. As an initial matter, Petitioner contends that Yoakim, Jarisch ’929, and Rossi are “analogous art in the field of portion

¹⁰ The U.S. patent statute precludes the type of multiple dependent claims appearing in the second German application. *See* 35 U.S.C. § 112(e) (2011) (“A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim.”).

capsule beverage extraction, each disclosing an invention that may be applied in automatic coffee/expresso machines.” Pet. 44 (referencing Ex. 1004 ¶¶ 2–3; Ex. 1006 ¶¶ 1–2; Ex. 1041, 1; Ex. 1003 ¶ 188); *cf. In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (“References within the statutory terms of 35 U.S.C. § 102 qualify as prior art for an obviousness determination only when analogous to the claimed invention.”). Patent Owner does not dispute this contention.

Petitioner contends that Jarisch ’929 expressly teaches using its invention in a brewing system like that disclosed in Exhibit 1007, which is, in turn, similar to Yoakim’s system, suggesting combining Jarisch ’929’s teachings with Yoakim’s teachings. Pet. 44. Also, Jarisch ’929 expressly discloses the advantages of using a repeat pattern in an identifier and placing the identifier on the bottom of the rim of a capsule, motivating a person having ordinary skill in the art to modify Yoakim’s capsule with Jarisch ’929’s teachings. *Id.* at 45 (referencing Ex. 1006 ¶¶ 17, 63–64; Ex. 1003 ¶¶ 191–193).

Petitioner also contends that a person having ordinary skill in the art would have been motivated to include Rossi’s recognition process in the Yoakim/Jarisch ’929 system “for the predictable benefit of greater specificity and accuracy of brewing conditions, and increased safety in the machine from preventing operation with unsuitable capsules.” Pet. 47 (referencing Ex. 1003 ¶ 197). Petitioner explains that Rossi expressly discloses that “use of an incorrect [capsule] may cause the machine to malfunction and can prejudice the safety and integrity of the machine and [] may harm the user.” *Id.* (quoting Ex. 1041, 3). Petitioner adds that Rossi expressly states that “allowing the machine to take further steps only if it also recognizes on the [capsule] the validation element’ results in ‘avoiding

the production of an edible product of inferior quality and ensuring the proper functioning of the machine.’” *Id.* (quoting Ex. 1041, 5).

Petitioner also contends that a person having ordinary skill in the art would have had an expectation of success in combining the teachings of Yoakim, Jarisch ’929, and Rossi as Petitioner proposes. Pet. 46–47, 48.

Patent Owner argues that the Petition fails to explain adequately why a person having ordinary skill in the art would have been motivated to add the separate validation element from Rossi to Yoakim. Prelim. Resp. 55–56. Patent Owner also argues that a person having ordinary skill in the art would not have combined the teachings of Yoakim and Jarisch ’929 as proposed by the Petitioner. *Id.* at 56. Patent Owner argues that Petitioner disparaged combining a parent application of Yoakim during the prosecution of a similar Jarisch reference. *Id.* at 56–57.

Patent Owner also argues that “Petitioner has not demonstrated how (or why) Yoakim and Jarisch [’]929 could be combined without a substantial reconstruction and redesign of elements.” Prelim. Resp. 57. Patent Owner argues that Yoakim’s sensor is configured to read a code on the opposite side of the capsule as compared to Jarisch ’929. *Id.* at 57–58 (citing *In re Ratti*, 46 CCPA 976, 981 (CCPA 1959)).

Finally, Patent Owner criticizes Mr. Jobin’s declaration testimony concerning motivation to combine as conclusory and as merely alleging that the references are in the same field. Prelim. Resp. 58. Patent Owner argues that this is insufficient. *Id.* at 58–59.

We have reviewed Petitioner’s contentions and supporting evidence and determine, on the current record, that Petitioner sufficiently demonstrates, at this stage of the proceeding, that a person having ordinary skill in the art would have had reason to combine the teachings of Yoakim,

Jarisch '929, and Rossi as Petitioner proposes, with a reasonable expectation of success in doing so. We determine, on the current record, that Petitioner's reasoning is sufficiently supported by rational underpinnings. *Cf. KSR Int'l Co.*, 550 U.S. at 418 (stating that, to facilitate the analysis of an obviousness position, the proponent should provide "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

We have considered Patent Owner's arguments and determine, on the current record, that they do not demonstrate a deficiency in Petitioner's position for purposes of trial institution. As to Rossi's validation step, the Petition relies on Rossi's express teaching that its validation element avoids an inferior quality beverage. *See* Pet. 47; *see, e.g.*, Ex. 1041, 5 ("The use of a validation element and validation means . . . help to prevent the use of an already-used single use load element in the machine, thereby avoiding the production of an edible product of inferior quality and ensuring the proper functioning of the machine.").

As to Patent Owner's argument directed to combining Yoakim and Jarisch '929, we determine on the current record that Jarisch '929 expressly provides a motivation, as Petitioner contends (and we discuss above).¹¹ *See* Pet. 45; *see, e.g.*, Ex. 1006 ¶¶ 17, 63 (both explaining the benefit of placing the identifier on the peripheral edge of the support/flange), 68 (providing the benefits of repeating the identifier).

¹¹ We do not address Patent Owner's arguments as to statements made by Petitioner during the prosecution of a related Jarisch application, as they are not in the record of this proceeding. Patent Owner is free to develop these issues in a timely response to the Petition.

We also determine, on the current record, Petitioner’s proposed combination does not change the basic principle of operation or require the type of substantial reconstruction that would weigh against a motivation to combine. The *basic* principle of operation of Yoakim remains the same—use a single-serve capsule with an identifier to make a beverage. Patent Owner’s argument seems to require a bodily incorporation of a capsule with an identifier on the bottom side of the flange into a system with a sensor reading the top of a capsule. The “test for obviousness,” however, “is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

We also determine, on the current record, that Mr. Jobin’s testimony directed to motivation to combine does not merely rest on an allegation that the references are in the same field. *See, e.g.*, Ex. 1003 ¶¶ 192 (discussing Jarisch ’929’s express disclosure on advantages of its code location), 193 (discussing Jarisch ’929’s express disclosure on the advantages of repeating the identifier), 198 (discussing Rossi’s express disclosure on the safety aspects of its use of identifiers and validation elements).

2. Independent Claim 1

We next turn to analyzing the scope and content of the prior art, and any differences between the prior art and the claimed invention, on a limitation-by-limitation basis.

a) Preamble

The preamble recites “[a] beverage system for making a beverage.” Ex. 1001, 12:59. Petitioner contends that “Yoakim discloses a brewing system and method using centrifugal rotation to extract a beverage from a

single-serve capsule containing a food substance.” Pet. 49 (referencing Ex. 1004 ¶ 2; Ex. 1003 ¶¶ 201–202); *see also id.* (reproducing Yoakim’s Figure 1, showing “brewing device (2), capsule (3), water heater (7), pump (6), and water reservoir (5)”).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the subject matter of the preamble. In view of this determination, we need not resolve, at this stage of the proceeding, whether the preamble is limiting.

Patent Owner does not dispute Petitioner’s contentions with respect to the subject matter of the preamble at this stage of the proceeding.

b) Base element

Claim 1 also recites “a single-serve capsule comprising: i) a base element with a cavity, in which a beverage material is provided, the base element being symmetrical about a central longitudinal axis thereof and having a rounded bottom portion.” Ex. 1001, 12:61–64 (the “base element” limitation of claim 1). Petitioner contends that Yoakim’s elements 70 and 102 correspond to the recited base element. Pet. 50–51 (referencing Ex. 1004 ¶¶ 14, 125, 129, 180, 197–198, 308, 414–415, 473, 510–511, Figs. 6–7, 26–27, 56–60); Ex. 1003 ¶¶ 205–214); *see, e.g., id.* at 50 (reproducing Figures 6, 26, and 27 from Yoakim, depicting single-serve capsules symmetrical about a central longitudinal axis); *id.* at 51 (reproducing Figures 27, 58, 59, and 60 from Yoakim, depicting capsules with rounded bottoms).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “base element”

limitation of claim 1. Patent Owner does not dispute Petitioner's contentions with respect to this limitation at this stage of the proceeding.

c) Flange

Claim 1 also recites “a single-serve capsule comprising: . . . ii) a flange extending outwardly from the base element, the flange comprising a top side and an opposing bottom side.” Ex. 1001, 12:60–67 (the “flange” limitation of claim 1). Petitioner contends that Yoakim discloses a single-serve capsule that includes a flange configured as recited in the “flange” limitation of claim 1. Pet. 52 (referencing Ex. 1004 ¶¶ 197, 414, Figs. 6, 26, 27; Ex. 1003 ¶¶ 215–218); *see also id.* (providing an annotated version of Yoakim's Figure 6, showing flange 72 and labeling the top and bottom sides of the flange).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “flange” limitation of claim 1. Patent Owner does not dispute Petitioner's contentions with respect to this limitation at this stage of the proceeding.

d) Cover

Claim 1 also recites

a single-serve capsule comprising: . . . iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis.

Ex. 1001, 12:60–13:6 (the “cover” limitation of claim 1). Petitioner contends that a person having ordinary skill in the art would have understood from Yoakim that, because its capsule is sealed and contains inert gas (or carbon dioxide from ground coffee), the cover would bow

outwardly. Pet. 53–54 (referencing Ex. 1004 ¶¶ 121, 128–129, 270; Ex. 1003 ¶¶ 221–223); *see also* Ex. 1003 ¶ 224 (“A person of ordinary skill in the art would understand that including an inert gas in a gastight capsule that is sealed by a thin foil membrane cover would result in the cover bowed outwardly . . . under the pressure of the gas . . . when the pressure inside the capsule exceeds atmospheric pressure . . .”).

Petitioner adds that Jarisch ’929 explicitly discloses that the cover of its capsule bows outwardly. Pet. 54 (referencing Ex. 1006, Fig. 5; Ex. 1003 ¶¶ 225–227); *see also id.* (providing an annotated version of Jarisch ’929’ Figure 5, showing a bowed cover).

Petitioner also contends that Yoakim discloses that its capsule cover is pierced in areas offset from the central longitudinal axis of the capsule, relying on Yoakim’s Figure 7. Pet. 55 (referencing Ex. 1004 ¶¶ 187, 199, Fig. 7; Ex. 1003 ¶¶ 228–230).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “cover” limitation of claim 1. Patent Owner does not dispute Petitioner’s contentions with respect to this limitation at this stage of the proceeding.

e) Barrier layer

Claim 1 also recites “a single-serve capsule comprising: . . . iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule.” Ex. 1001, 12:60–13:8 (the “barrier layer” limitation of claim 1). Petitioner contends that Yoakim discloses a capsule with a barrier layer for maintaining the freshness of the substance in the capsule. Pet. 55–56 (referencing Ex. 1004 ¶¶ 96, 121, 128–129, 197, 350, 355; Ex. 1003 ¶¶ 233–234).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “barrier layer” limitation of claim 1. Patent Owner does not dispute Petitioner’s contentions with respect to this limitation at this stage of the proceeding.

f) Identifier

Claim 1 also recites “a single-serve capsule comprising: . . . v) an identifier, which includes a repeat pattern, provided on the bottom side of the flange.” Ex. 1001, 12:60–13:10 (the “identifier” limitation of claim 1). Petitioner contends that the combination of Yoakim and Jarisch ’929 discloses the subject matter of the “identifier” limitation of claim 1. Petitioner contends that Yoakim discloses a system that includes an identifier on each capsule, such as a barcode or other visual code. Pet. 56 (referencing Ex. 1004 ¶¶ 477, 496, 526; Ex. 1003 ¶¶ 235–236).

Petitioner contends that Jarisch ’929 discloses an identifier on the bottom rim of its capsule, opposed from the lid or foil cover of the capsule. Pet. 56 (referencing Ex. 1006 ¶¶ 37, 64; Ex. 1003 ¶ 238); *see id.* at 57 (showing Jarisch ’929’s Figure 4, with an optical code on the bottom of a capsule rim). Petitioner adds that Jarisch ’929 also discloses using redundant information in its code, where the same sequence of an optical code is repeated around the rim of a capsule. *Id.* at 57; *see also id.* at 58 (showing Jarisch ’929’s Figure 2, having a repeating code on the rim of its capsule).

Upon review of the information in the Petition and corresponding evidence, including Petitioner’s reasons for combining the teachings of Yoakim and Jarisch ’929 discussed above in our analysis of Petitioner’s reasons to combine the references, we determine Petitioner has made a

sufficient showing, at this stage of the proceeding, that Yoakim, as modified by Jarisch '929, teaches or suggests the “identifier” limitation of claim 1. Patent Owner does not dispute Petitioner’s contentions with respect to this limitation at this stage of the proceeding.

g) Sensor

Claim 1 also recites “(B) a beverage machine comprising: i) a sensor/detector.” Ex. 1001, 13:11–12 (the “sensor” limitation of claim 1). Petitioner contends that each of Yoakim and Jarisch '929 discloses a sensor or detector that detects the identifier on a capsule used in Yoakim’s and Jarisch '929’s respective systems. Pet. 58–59 (referencing Ex. 1004 ¶¶ 25, 192, 477, 494–496, 525, Figs. 4, 61; Ex. 1006 ¶ 106, Fig. 5; Ex. 1003 ¶¶ 245–249).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim or Jarisch '929 teaches or suggests the “sensor” limitation of claim 1. Patent Owner does not dispute Petitioner’s contentions with respect to this limitation at this stage of the proceeding.

h) Receptacle

Claim 1 also recites “a beverage machine comprising: . . . ii) a receptacle configured to receive the single-serve capsule.” Ex. 1001, 13:11–14 (the “receptacle” limitation of claim 1). Petitioner contends that Yoakim discloses a capsule holder (item 41), which is configured to receive a capsule. Pet. 59–60 (referencing Ex. 1004 ¶¶ 187, Fig. 41; Ex. 1003 ¶¶ 250–251).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “receptacle”

limitation of claim 1. Patent Owner does not dispute Petitioner's contentions with respect to this limitation at this stage of the proceeding.

i) Pump

Claim 1 also recites “a beverage machine comprising: . . . iii) a pump controlled to supply water into the single-serve capsule only upon detection of the identifier by the sensor/detector and a determination by the beverage machine that the single-serve capsule is suitable for use with the beverage machine.” Ex. 1001, 13:11–20 (the “pump” limitation of claim 1).

Petitioner contends that Yoakim discloses a pump that is controlled based on the sensor detecting the identifier on a capsule. Pet. 61 (referencing Ex. 1004 ¶¶ 25, 192, 218, 477; Ex. 1003 ¶¶ 254–255); *see, e.g.*, Ex. 1004 ¶ 477 (“The capsule system further comprises an identification means associated to the different capsules The identification means are associated to control means placed in the centrifugal brewing device which controls the adjustment of the said parameters, by controlling . . . the pump supplying liquid in the capsule.”).

Petitioner contends that “Rossi discloses controlling a pump to supply water into the capsule only upon detection of the identifier by the sensor, and a determination by the machine that the capsule is suitable for use with the machine.” Pet. 61 (referencing Ex. 1041, 4). Petitioner contends that Rossi's system detects an identifier on the capsule (Rossi's “load element”) and determines if the capsule is suitable for use in the machine. *Id.* at 61–62 (referencing Ex. 1041, 3, 5; Ex. 1003 ¶¶ 256–258). Petitioner explains that Rossi expressly discloses that its machine is not activated unless the identifier is recognized and a validation element is validated. *Id.* at 63–64 (referencing Ex. 1041, 6, 7, 10; Ex. 1003 ¶ 260). Petitioner adds that Rossi discloses that its identifier and validation element can be an optical code on

the capsule. *Id.* at 63 (referencing Ex. 1041, 7, 11; Ex. 1003 ¶ 259). For the reasons discussed above in connection with our analysis of Petitioner’s contentions with respect to motivation to combine Yoakim, Jarisch ’929, and Rossi, Petitioner concludes that it would have been obvious to combine the teachings of these references to arrive at the subject matter of the “pump” limitation of claim 1. *Id.* at 65.

Patent Owner argues that neither Yoakim nor Rossi discloses the subject matter of the “pump” limitation of claim 1. Prelim. Resp. 54. First, Patent Owner argues that “Petitioner fails . . . to point to any disclosure in Yoakim that suggests relying upon identifier detection for the purposes of controlling a pump, particularly as a safety measure.” *Id.* Patent Owner also argues that Petitioner does not address the disclosure in Yoakim that the water can be transported without a pump. *Id.*

Next, Patent Owner argues that Rossi also discloses a validation element, “[b]ut Petitioner has not shown how the validation element has anything to do with the operation of the machine, and certainly not the control of a pump.” Prelim. Resp. 55. Patent Owner adds that “Petitioner overlooks its obligation to cite a disclosure of a pump in Rossi.” *Id.*

We have considered Patent Owner’s arguments and determine, on the current record, that they do not demonstrate a deficiency in Petitioner’s position. As an initial matter, to the extent that Patent Owner argues against the references separately, such an argument is improper in the obviousness context. *See, e.g., In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (“Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.”).

Also, the fact that Yoakim does not disclose that its use of an identifier to operate the pump is for safety purposes is inapposite. Yoakim does teach that it uses an identifier on the capsule to identify the type of capsule being used, and controls the pump to deliver the proper amount of water for the particular type of capsule used. *See* Pet. 61; *see, e.g.*, Ex. 1004 ¶¶ 25 (“The device . . . further comprises identification means for identifying the different capsules, and control means capable of operating the device . . . for any of the different capsules according to predetermined liquid food preparation parameters including the flow rate and the volume of liquid to be injected into the capsule . . .”), 180 (disclosing that the system includes low pressure pump 6), 477 (“The capsule system further comprises an identification means associated to the different capsules The identification means are associated to control means placed in the centrifugal brewing device which controls the adjustment of the said parameters, by controlling . . . the pump supplying liquid in the capsule.”). The Petition relies on these teachings. *See* Pet. 61. As such, contrary to Patent Owner’s argument, Petitioner does point to disclosures in Yoakim about controlling a pump based on an identifier.

Additionally, although controlling the pump as a “safety measure” is not part of the claim, Petitioner identifies this very teaching in Rossi. *See* Pet. 47, 62; *see, e.g.*, Ex. 1041, 3 (“Use of an incorrect load element may cause the machine to malfunction and can prejudice the safety and integrity of the machine and the may harm the user.”); 5 (“The use of an identification element and recognition means, as well as the step of recognising the identification element allows the machine to recognise the load element and, hence, its contents. This . . . helps to prevent the safety hazard associated with the use of inappropriate operating conditions.”).

Also, the fact that Yoakim discloses an alternative way to deliver hot water other than using a pump does not change the fact that Yoakim discloses that low pressure pump 6 delivers water from water reservoir 5 to device 2. *See* Ex. 1004 ¶ 180.

Similarly, the fact that Rossi's system teaches both a recognition step and a validation step does not undermine Petitioner's position, on the current record. Rossi expressly teaches the step of recognizing an identifier and controlling the operation of the machine, only if the identifier is recognized. Patent Owner has not sufficiently explained how the additional step of validation—which ensures that the capsule has not already been used—would undermine Rossi's teachings of recognizing an identifier.

For the reasons above, including our review of the information in the Petition and corresponding evidence, including Petitioner's reasons for combining the teachings of Yoakim, Jarisch '929, and Rossi, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim, as modified by Jarisch '929, and Rossi, teaches or suggests the “pump” limitation of claim 1.

j) *Chamfered mandrel*

Claim 1 also recites “a beverage machine comprising: . . . iv) a chamfered mandrel that is configured to pierce the cover at the location that is offset from the central longitudinal axis.” Ex. 1001, 13:11–23 (the “chamfered mandrel” limitation of claim 1). Petitioner contends that Yoakim discloses outlet piercing elements 51, which have slanted cutting surfaces, correspond to the recited chamfered mandrel. Pet. 65–66 (referencing Ex. 1004 ¶¶ 186–187, 435, Fig. 4; Ex. 1003 ¶¶ 264–267); *see id.* at 66 (showing an annotated, enlarged version of Yoakim's Figure 4,

identifying the piercing elements in red boxes; and also showing Figure 7, with holes 74 offset from the central axis).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “chamfered mandrel” limitation of claim 1. Patent Owner does not dispute Petitioner’s contentions with respect to this limitation at this stage of the proceeding.

k) Groove and seal

Claim 1 also recites “a beverage machine comprising: . . . v) a groove that is laterally offset from the chamfered mandrel.” Ex. 1001, 13:11–25 (the “groove” limitation of claim 1). Claim 1 also requires the beverage machine to comprise “vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between a peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel.” *Id.* at 13:11–30 (the “seal” limitation of claim 1). Petitioner contends that Yoakim’s flow restriction means corresponds to the recited groove and seal. Pet. 67 (referencing Ex. 1004 ¶¶ 370–380, 382, 396–398; Ex. 1003 ¶ 269). Petitioner contends that “Yoakim discloses the brewing machine further comprising a sealing valve system 156, which is referred to as an annular engaging portion 157, and can be in the form of a cone or V ‘for increasing sealing pressure.’” *Id.* (referencing Ex. 1004 ¶¶ 388, 436, 446; Ex. 1003 ¶¶ 271–272); *see also id.* at 67–68 (describing Yoakim’s machine’s seal structures); *id.* at 69 (describing Yoakim’s grooves for receiving the seals); *id.* (showing an annotated version of enlarged portions of Yoakim’s Figures 35 and 38, illustrating the seal and groove structures).

Petitioner also contends that, “[t]o the extent [Figures 35] and 38 do not constitute a groove, it would have been obvious to a [person having ordinary skill in the art] to position a sealing member in a groove, in order to solidify the placement of the seal and improve its sealing stability and strength.” Pet. 70 (referencing Ex. 1003 ¶ 275).

Upon review of the information in the Petition and corresponding evidence, we determine Petitioner has made a sufficient showing, at this stage of the proceeding, that Yoakim teaches or suggests the “groove” and “seal” limitations of claim 1. Patent Owner does not dispute Petitioner’s contentions with respect to these limitations at this stage of the proceeding.

l) Conclusion

Having reviewed the preliminary record, including Petitioner’s showing as to how the combined teachings of Yoakim, Jarisch ’929, and Rossi disclose each of the limitations of claim 1, and the reasons for combining the teachings of these references, we conclude that Petitioner demonstrates a reasonable likelihood that claim 1 is unpatentable under 35 U.S.C. § 103(a) over Yoakim, Jarisch ’929, and Rossi.

3. Dependent claims 4–6

As we discuss above, Petitioner has demonstrated a reasonable likelihood of success in proving that at least claim 1 of the ’491 patent is unpatentable, and we institute on all challenges raised in the Petition. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1354, 1359–60 (2018); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”); 37 C.F.R. § 42.108(a) (“When instituting *inter partes* review, the Board will

authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”).

We have, however, reviewed Petitioner’s contentions and citations to the evidence and determine that Petitioner has made a sufficient showing, on the current record, that dependent claims 4–6, which depend ultimately from independent claim 1, are unpatentable under 35 U.S.C. § 103(a) over Yoakim, Jarisch ’929, and Rossi. Patent Owner does not make any arguments directed to these dependent claims, except for the arguments directed to independent claim 1, which we address above in connection with our analysis of claim 1 under Ground 1.

F. Ground 2: Claims 2, 3, and 7–13 as unpatentable over Yoakim, Jarisch ’929, Rossi, and Castellani

Petitioner contends that “Yoakim, Jarisch [’929], and Rossi disclose all elements of claims [2, 3, and 7–13] except for (1) the holding arms for guiding the single-serve capsule; and (2) a waste container.” Pet. 73 (referencing Ex. 1003 ¶¶ 292–293 and analysis of Ground 1). Petitioner contends that Castellani teaches this additional subject matter, and that a person having ordinary skill in the art would have been motivated to modify the combination of Yoakim, Jarisch ’929, and Rossi with Castellani’s teachings to arrive at the subject matter of claims 2, 3, and 7–13. *Id.* at 73–74; *see also id.* at 74–76 (providing reasons to combine Castellani’s teachings with Yoakim, as modified by Jarisch ’929 and Rossi as proposed by Petitioner for Ground 1, and contending that there would have been a reasonable expectation of success for the modification), 76–81 (providing an analysis of claims 2, 3, and 7–13).

As we discuss above in our analysis of Ground 1, because Petitioner has demonstrated a reasonable likelihood of success in proving that at least

claim 1 of the '491 patent is unpatentable, we institute on all challenges raised in the Petition. We have, however, reviewed Petitioner's contentions and citations to the evidence and determine that Petitioner has made a sufficient showing, on the current record, that claims 2, 3, and 7–13 are unpatentable under 35 U.S.C. § 103(a) over Yoakim, Jarisch '929, Rossi, and Castellani. Patent Owner does not make any arguments directed to these claims, except for the arguments directed to the independent claims, which we address above in connection with our analysis of claim 1 under Ground 1. *See, e.g.*, Prelim. Resp. 53–55 (arguing against independent claims 1, 7, and 10), 59–60 (addressing Ground 2 and referencing earlier arguments).

III. DISCRETIONARY DENIAL

Patent Owner argues that we should exercise our discretion and not institute trial under either 35 U.S.C. § 325(d) or 35 U.S.C. § 314(a). We address each of these arguments in turn.

A. Discretionary Denial under 35 U.S.C. § 325(d)

Patent Owner contends that we should exercise our discretion under 35 U.S.C. § 325(d) to deny the Petition, applying our precedential decisions in *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”), and *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton, Dickinson*”). Prelim. Resp. 10–31; Prelim. Sur-reply 2–7. For the reasons provided below, we do not exercise our discretion to deny institution under § 325(d).

1. Applicable Framework

Section 325(d) provides that, in determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). The Board uses a two-part framework in determining whether to exercise its discretion under § 325(d), specifically:

- (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and
- (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, Paper 6 at 8.

In applying the two-part framework, we consider several non-exclusive factors from *Becton, Dickinson*, which provide “useful insight into how to apply the framework” (*Advanced Bionics*, Paper 6 at 9): (a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments. *Becton, Dickinson*, Paper 8 at 17–18. If, after review

of factors (a), (b), and (d), we determine that the same or substantially the same art or arguments previously were presented to the Office, we then review factors (c), (e), and (f), which relate to whether the petitioner demonstrates that the Office erred in a manner material to the patentability of the challenged claims. *Advanced Bionics*, Paper 6 at 10.

2. *Scope of the prosecution history of the '491 patent*

In a first Office Action for the application that matured into the '491 patent, the Examiner allowed most of the pending claims, including original claims 21, 29, and 32, which issued as independent claims 1, 7, and 10. Ex. 1002, 220–228, 345. In the first Office Action, under the heading “Allowable Subject Matter,” the Examiner stated that “none of the cited prior art discloses or suggests a pump controlled to supply water into the single-serve capsule only upon detection of the identifier by the sensor/detector and a determination by the beverage machine that the single-serve capsule is suitable for use with the beverage machine.” *Id.* at 226.

The applicant filed an Information Disclosure Statement (“IDS”) with 655 entries, including Yoakim, Jarisch '929, and publications listing Castellani as an inventor. Ex. 1002, 135–162. The applicant also filed an IDS that included the petitions and declarations from Mr. Jobin for three *inter partes* review proceedings—IPR2021-01221, IPR2021-01222, and IPR2021-01223. *Id.* at 165–166. The petitions from each of these proceedings included, in a background discussion of the technology, a reference to Rossi. *See, e.g.*, IPR2021-01221, Paper 1, 11 (“System reads barcodes on the base of the capsule and ‘compares the signal from the recognising means for the [barcodes] with prestored data in order to allow the machine to proceed to activation only if it recognizes the [barcodes].” (referencing Ex. 1041, 9)). The applicant also filed an IDS that included

invalidity contentions from the parallel district court litigation. Ex. 1002, 214–215. The contentions included brief references to Rossi, and spanned over 1500 pages of claim charts. *See* Ex. 2011, 238–1808.

3. *Advanced Bionics, Part 1*

Petitioner states that Yoakim, Jarisch '929, Rossi, and Castellani were included “directly or indirectly” in IDSs containing over 700 references, further noting that “the Examiner never asserted a rejection over the challenged claims using any of the references in the Grounds of this Petition.” Pet. 19 (referencing Ex. 1002, 135–162, 165–166, 214–215, 325–331). Petitioner then states that “[i]n proceedings involving related patents, the Board previously held that IDS citation was sufficient under Part 1 of the *Advanced Bionics* framework to require analysis of Part 2,” and analyzes the *Advanced Bionics* framework under Part 2. *Id.*

Patent Owner responds that Petitioner concedes that Part 1 of the *Advanced Bionics* framework is satisfied here. Prelim. Resp. 16. In its Preliminary Reply, Petitioner walks back its statement in the Petition, arguing that “there is no evidence [that the Examiner] considered Rossi specifically.” Prelim. Reply 1. Patent Owner replies that Petitioner’s concession in the Petition was correct (that Rossi was included in an IDS, satisfying Part 1 of the *Advanced Bionics* framework) and it would be error for us to decide otherwise.

For the purposes of this Decision, we need not decide whether Part 1 of the *Advanced Bionics* framework is satisfied here because Part 2 of the analysis is dispositive.

4. *Advanced Bionics, Part 2*

We move to the second part of the *Advanced Bionics* framework to determine “whether the petitioner has demonstrated that the Office erred in a

manner material to the patentability of challenged claims.” *Advanced Bionics*, Paper 6 at 8. To facilitate this determination, we consider *Becton, Dickinson* review factors (c), (e), and (f). We take each factor in turn, beginning with factor (e).

- a) *Factor (e)—whether Petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art*

We determine on the current record that Petitioner has sufficiently identified how the Examiner materially erred during the prosecution of the application that matured into the ’491 patent. As Petitioner argues, the Examiner stated that the subject matter of the independent claims was allowable because “none of the cited prior art discloses or suggests a pump controlled to supply water into the single-serve capsule only upon detection of the identifier by the sensor/detector and a determination by the beverage machine that the single-serve capsule is suitable for use with the beverage machine.” Pet. 23 (quoting Ex. 1002, 226). Petitioner argues that

The Examiner materially erred because these allegedly missing limitations are disclosed or reasonably suggested by the prior art combination detailed in this Petition. The Examiner did not discuss Rossi in connection with these claim limitations, which discloses a coffee brewing system that will not operate the brewing cycle unless it detects an identifier on the capsule, and evaluates the identifier to determine whether the capsule is suitable for use with the machine.

Id. Petitioner adds that “[b]ecause the prior art combinations in the Petition explicitly negate the Examiner’s Reasons for Allowance, the Examiner materially erred by misapprehending or overlooking their respective disclosures.” *Id.* at 24.

Patent Owner replies that “it cannot be believed that the Examiner . . . [was] unaware of these references because each reference was either

expressly considered by the Examiner or submitted to him in invalidity claim charts prepared by Petitioner itself.” Prelim. Resp. 30. Patent Owner adds that “Rossi was previously overcome by Patent Owner during prosecution of [U.S. Patent No. 10,858,176] in this patent family.”¹²

Petitioner replies that “Rossi . . . discloses the same safety features from the ’491 Patent—a coffee system that will not operate the brewing cycle unless it detects a capsule code, and determines whether the capsule is suitable for use with the machine.” Prelim. Reply 5. Petitioner adds that Patent Owner does not “credibly challenge” that the Examiner erred in not appreciating Rossi’s disclosure. *Id.*

Patent Owner replies that “Patent Owner and the Examiner are correct in determining that neither [Yoakim nor Rossi] disclose[s] . . . the limitations of the independent claims directed to a ‘pump controlled to supply water’ under particular conditions.” Prelim. Sur-reply 6.

We have evaluated the parties’ arguments and associated evidence and determine that Petitioner has pointed out sufficiently how the Examiner materially erred in not appreciating Rossi’s disclosure of a pump controlled to supply water into the single-serve capsule only upon detection of the

¹² U.S. Patent No. 10,858,176 issued from application number 16/538,752, and was examined by Examiner Becker and Examiner Smith. *See* Ex. 2006, 1, 15, 131. Application number 16/538,752 is not listed as a “Related U.S. Application” for the ’491 patent. *See* Ex. 1001, code (60). Examiner Jennison was the Examiner for the application that matured into the ’491 patent. Also, despite Patent Owner’s suggestion of the close relationship of these applications, the applicant did not include Rossi on an IDS. As we stated above in our discussion of the scope of the prosecution history of the ’491 patent, Rossi was mentioned briefly in three *inter partes* review petitions and invalidity contentions, with these petitions and contentions included on IDSs.

identifier by the sensor/detector and a determination by the beverage machine that the single-serve capsule is suitable for use with the beverage machine, the very limitation that the Examiner identified as providing the reasons for allowing the independent claims.

We do not find persuasive Patent Owner's arguments directed to the prosecution of U.S. application number 16/538,752, which matured into U.S. Patent No. 10,858,176. First, this application is not in the priority chain of the '491 patent. Second, the applications were examined by different examiners. *See supra* note 12. Finally, contrary to Patent Owner's characterization, the applicant did not "overcome" Rossi. Instead, the applicant amended the claims to add a limitation. *See Ex. 2006, 126–127* (addressing the obviousness rejections involving Rossi and stating that "[w]ithout conceding the validity of the rejection of these claims, or the appropriateness of the Examiner relying on [the combination, including Rossi] . . . Applicant submits [that the rejected claims] are allowable for at least their inclusion of the limitation relating to the barcode being located on a bottom side of a circumferential flange").

Accordingly, for the reasons above, factor (e) weighs against exercising discretion.

b) Factor (c)— the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection

Petitioner argues that the references upon which the Petition relies were part of voluminous IDSs. Quoting a statement from the Examiner during prosecution of an application in the priority chain of the '491 patent, Petitioner argues that "*cloaking of a clearly relevant reference[] in a long list of references may not comply with applicants' duty to disclose[]*" Pet.

20 (referencing Ex. 1053, 32–33). Petitioner argues that “[p]ractical considerations demonstrate that Applicant’s prosecution tactics limited the Examiner’s ability to properly evaluate the relevant disclosures in the Petition art, particularly Rossi, which contains disclosure of the allegedly patentable subject matter.” *Id.* at 21. Petitioner concludes that “[g]iven that none of the Petition art was the basis of any rejection of the claim limitations during prosecution in this application, this factor weighs against discretionary denial.” *Id.* at 22.

Patent Owner responds that it was not engaging in prosecution tactics, but rather timely filed information when Patent Owner received it. Prelim. Resp. 28. Patent Owner argues that “[i]n submitting these materials to the Examiner, Patent Owner sought to secure a valid and enforceable patent in the face of attacks lodged elsewhere by Petitioner and its privies, and to demonstrate its good faith fulfillment of its duty to disclose material information.” *Id.* at 29.

Petitioner reiterates that the application that matured into the ’491 patent did not have any prior art rejections and, to the extent other related applications included rejections involving some of the art, those related applications did not claim the same subject matter. Prelim. Reply 2–3.

Patent Owner replies that “[t]he Examiner was well aware of these references.” Prelim. Sur-reply 5.

We determine that the extent to which the asserted art was evaluated during prosecution of the application that matured into the ’491 patent was minimal, weighing against exercising discretion to deny institution. Significant to our finding here is that Rossi was disclosed only in the petitions for the previous *inter partes* review proceedings and litigation invalidity contentions—all long documents with Rossi appearing minimally

in each document. Indeed, Rossi does not even appear on the face of the '491 patent. *See* Ex. 1001, code (56). Also, none of the asserted references (Yoakim, Jarisch '929, Rossi, and Castellani) were the basis for a rejection during prosecution of the application that issued as the '491 patent.

c) Factor (f)— the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments

Petitioner argues that the Petition and Mr. Jobin's declaration provide additional evidence that warrants reconsideration of the prior art.

Pet. 25–26; Prelim. Reply 6. Patent Owner argues that Petitioner relies on the same disclosures from the references as the disclosures previously considered. Prelim. Resp. 31. Patent Owner also argues that expert testimony alone cannot establish error. *Id.*; *see also* Prelim. Sur-reply 6 (emphasizing that this factor requires “additional evidence and facts”).

We determine that this factor weighs neutral. Petitioner argues the type of additional evidence that is part of any *inter partes* review proceeding. On the current record, although this testimony is consistent with Petitioner's assertions, we determine that the testimony does not otherwise provide the type of additional evidence and facts above those in the prior art and claimed priority documents that would be given considerable weight in our analysis here.

5. Conclusions, discretion under 35 U.S.C. § 325(d)

Taking a holistic view of the totality of the information presented, we determine that Petitioner sufficiently demonstrates material examiner error during prosecution of the application that matured into the '491 patent. Accordingly, we do not exercise our discretion under § 325(d) to not institute an *inter partes* review.

B. Discretionary Denial under 35 U.S.C. § 314(a)

Patent Owner also argues that we should exercise our discretion under 35 U.S.C. § 314(a). Prelim. Resp. 60–61. Patent Owner argues that

The parties have been embroiled in disputes involving substantive claims for infringement for both the '491 Patent and the prior art Jarisch 929 reference. As such, it is unnecessary to open up yet another front in this dispute, and Patent Owner believes that the proper course would be for the Board to deny institution of this IPR, as it has done with the previous three related requests.

Id. at 60.

We have considered this argument and determine that the argument does not sufficiently support us exercising our discretion under § 314(a) to deny institution. Patent Owner argues facts that are not unlike the facts in most *inter partes* review proceedings and, without more, fails to justify discretionary denial.

IV. CONCLUSION

For the above reasons, we determine that the information presented in the Petition shows a reasonable likelihood that at least claim 1 of the '491 patent is unpatentable as obvious over Yoakim, Jarisch '929, and Rossi. Because Petitioner demonstrates that at least one claim of the '491 patent meets the threshold for institution, we institute an *inter partes* review of all claims as challenged in the Petition. 37 C.F.R. § 42.108(c); *SAS*, 138 S. Ct. at 1359–60.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–13 of the '491 patent is *instituted*; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), notice is hereby given of the institution of trial, which will commence on the entry date of this Decision

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Patent 11,254,491 B2

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