

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NESPRESSO USA, INC.,
Petitioner,

v.

K-FEE SYSTEM GMBH,
Patent Owner.

Case No. IPR2023-00485
U.S. Patent 11,230,430

PATENT OWNER PRELIMINARY RESPONSE

TABLE OF CONTENTS

I.	Introduction.....	6
II.	Overview of the '430 Patent.....	9
	A. The German Priority Applications	11
	B. Prosecution of the '430 Patent	13
III.	Claim Construction.....	16
IV.	Level of Ordinary Skill in the Art	18
V.	The Board Should Exercise Its Discretion to Deny Institution Under 35 U.S.C. § 325(d).....	18
	A. The Examiner was Acutely Aware of the Prior Art Asserted in the Present Petition.....	18
	B. Petitioner's Challenges of Related K-fee Patents Are Based on the Same Prior Art and Arguments	20
	1. Becton Factors (a), (b), and (d): Petitioner Presents the Same References and Arguments as Presented During Prosecution	23
	a. Yoakim	24
	b. Jarisch	25
	c. Rossi.....	26
	d. Castellani	27
	2. Becton Factors (c), (e), and (f): The USPTO Did Not Make a Material Error in Allowing the Claims.....	27
	a. Factor (c): the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection	27
	b. Factor (e): whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art	30
	c. Factor (f): the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.....	31

VI.	Ground 1 Fails Because Jarisch is not Prior Art	31
A.	Patent Owner’s German Priority Applications Antedate Jarisch 929	31
1.	The USPTO Has Already Rejected Petitioner’s Priority Arguments.....	32
2.	The Second German Application Provides Priority Support.....	36
B.	Without the Jarisch Reference Ground 1 Fails	56
VII.	The Petition Fails to Establish a Prima Facie Case for Obviousness	56
A.	Asserted Ground of Rejection: Claims 1-10 Are Allegedly Rendered Obvious Under 35 U.S.C. § 103 by Yoakim in View of Jarisch and Rossi	56
1.	Based on Petitioner’s Arguments in the District Court, the Art Fails to Disclose or Render Obvious a “barcode”	56
2.	The Art Fails to Disclose or Render Obvious a determination that the single-serve capsule belongs to a group of single serve capsules operable for use with the beverage machine.....	61
3.	The Art Fails to Disclose or Render Obvious a Pump Control Limitation	62
4.	A Person of Ordinary Skill in the Art Would Not Have Been Motivated to Combine Rossi with Yoakim and Jarisch.....	64
5.	A Person of Ordinary Skill in the Art Would Not Have Been Motivated to Further Combine Yoakim, Jarisch, and Rossi with Castellani.....	68
VIII.	Institution Should Be Denied Under 35 U.S.C. § 314(a)	68

TABLE OF AUTHORITIES

Cases	Page(s)
<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH</i> , IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (designated precedential Mar. 24, 2020)	22, 23, 24
<i>Becton, Dickinson and Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, slip op. (P.T.A.B. Dec. 15, 2017)	22, 24, 25
<i>D-Three Enterprises, LLC v. SunModo Corp.</i> , 890 F.3d 1042 (Fed. Cir. 2018)	54
<i>ESCO Corp. v. Cashman Equip. Co.</i> , 158 F. Supp. 3d 1051 (D. Nev. 2016)	28
<i>Flash-Control LLC v. Intel Corp.</i> , 2021 WL 2944592, 2021 U.S. App. LEXIS 20790 (Fed. Cir. July 14, 2021)	53
<i>FWP IP ApS v. Biogen MA, Inc.</i> , 749 Fed. Appx. 969 (Fed. Cir. 2018)	39, 40, 55
<i>Hologic, Inc. v. Smith & Nephew, Inc.</i> , 884 F.3d 1357 (Fed. Cir. 2018)	56
<i>Hyatt v. Dudas</i> , 492 F.3d 1365 (Fed. Cir. 2007)	53
<i>II-VI, Inc. v. Soto</i> , IPR2021-01361, Paper 10, 2022 WL 494813 (P.T.A.B. Feb. 15, 2022)	25
<i>J&M Indus. v. Raven Indus.</i> , 574 F. Supp. 3d 941 (D. Kan. 2021)	23
<i>Koito Mfg. Co. v. Turn-Key-Tech, LLC</i> , 381 F.3d 1142 (Fed. Cir. 2004)	50
<i>Nike, Inc. v. Adidas AG</i> , 812 F.3d 1326 (Fed. Cir. 2016)	50
<i>Novozymes A/S v. DuPont Nutrition Bioscisc. APS</i> , 723 F.3d 1336 (Fed. Cir. 2013)	55, 56
<i>Purdue Pharma LP v. Recro Tech. LLC</i> , 694 Fed. Appx. 794 (Fed. Cir. 2017)	54, 55
<i>Roku, Inc. v. Universal Electronics, Inc.</i> , IPR2019-01619, Paper 11, 2021 WL 2123912 (P.T.A.B. May 25, 2021)	24

<i>Ex Parte Sims</i> , Appeal 2018-003749, 2019.....	38
<i>Union Oil Co. of Cal. v. Atlantic Richfield Co.</i> , 208 F.3d 989 (Fed. Cir. 2000).....	38
<i>Volkswagen Grp. of Am., Inc. v. Stratosaudio, Inc.</i> , IPR2021-00718, Paper 16.....	25
Statutes	
35 U.S.C. 112(a)	34
35 U.S.C. § 316(e)	10
35 U.S.C. § 325(d)	9, 19, 21
Other Authorities	
37 C.F.R. § 42.107(a).....	7
IPR2021-01221, IPR2021-01222	33
IPR2021-01223, Paper 1	26, 28
IPR2021-01223, Paper 9.....	32
IPR2023-00485 (Pending)	12
IPR2023-00502 (Pending)	11
U.S. Patent No. 11,465,829.....	35
U.S. Patent No. 11,465,830.....	35
U.S. Patent No. 11,542,094.....	33

LIST OF EXHIBITS

Exhibit	Description
Ex. 2001	Declaration of Laurens “Lars” Howle (“Howle Decl.”)
Ex. 2002	Examiner-Initiated Interview Summary for Appl. No. 17/324,182
Ex. 2003	Examiner-Initiated Interview Summary for Appl. No. 17/108,175
Ex. 2004	<i>K-fee System GmbH v. Nespresso USA, Inc.</i> , Case No. 2:21-cv-3402 GW(AGRx), Dkt. No. 126-1 (Apr. 1, 2022)
Ex. 2005	<i>K-fee System GmbH v. Nespresso USA, Inc.</i> , Case No. 2:21-cv-3402 GW(AGRx), Dkt. No. 211 (June 17, 2022)
Ex. 2006	U.S. Patent No. 11,254,491
Ex. 2007	U.S. Patent No. 10,858,177
Ex. 2008	Excerpts of file history for U.S. Patent No. 10,858,176
Ex. 2009	Excerpts of file history for U.S. Patent No. 10,870,531
Ex. 2010	Excerpts of file history for Appl. No. 17/547,363
Ex. 2011	Applicant-Initiated Interview Summary for Appl. No. 17/963,392
Ex. 2012	File history for U.S. Patent 11,254,491
Ex. 2013	Notice of Allowance for Appl. No. 17/330,572
Ex. 2014	Excerpts from Appl. No. 17/670,629
Ex. 2015	Excerpts from Appl. No. 17/670,765
Ex. 2016	Suggestion for Declaration of Interference, Appl. No. 13/697,297

I. Introduction

Petitioner Nespresso USA, Inc. (“Nespresso” or “Petitioner”) filed this Petition for *inter partes* review (the “Petition”) of Claims 1-10 of U.S. Patent No. 11,230,430 (Ex. 1001, the “’430 Patent”), which issued on January 25, 2022. The Board accorded a filing date of January 24, 2023. Pursuant to 37 C.F.R. § 42.107(a), Patent Owner K-fee System GmbH (“K-fee” or “Patent Owner”) submits the following Preliminary Response, filed within three months of the March 16, 2023 notice according a filing date, setting forth reasons why an *inter partes* review should not be instituted.

The Board should deny institution for three independent reasons. First, the Petitioner’s primary references and arguments were squarely presented to and considered by the Examiner during prosecution of the ’430 Patent. Indeed, Petitioner concedes in its Petition that “Yoakim and Jarisch were cited” during the prosecution of the ’430 Patent, and “Rossi and Castellani were mentioned within the IPRs that were cited in the IDS.” Pet. At 19. What Petitioner fails to acknowledge is that the Examiner also considered Petitioner’s *arguments*. Patent Owner provided the Examiner with copies of invalidity claim charts and previous *inter partes* review petitions in which Petitioner cited the very same passages and presented arguments nearly identical to those now presented again in the current petition. There can be no question that the Examiner was acutely aware of each and every reference cited in this

Petition, as well as the same specific passages Petitioner cites and the arguments on which Petitioner bases this Petition.

Because of this Petitioner *must* argue that the Examiner erred by “misapprehending or overlooking specific teachings in the relevant prior art.” Petitioner argues that this was because of certain alleged prosecution tactics employed by Patent Owner to bury the PTO Examiner with a “deluge of prior art references.” Pet. at 21. But Examiner Jennison himself recently debunked this very argument. In *three* applications sharing priority with the ’430 Patent, Examiner Jennison “acknowledges the number of references filed in the IDS documents is not excessive or overly burdensome.” Ex. 2002 at 2; Ex. 2003 at 2; Ex. 2013 at 6. Indeed, the Examiner noted that “the amount of references cited, a significant portion being filings from a third party, are not considered an undue burden.” Ex. 2013 at 6. Examiner Jennison also agrees that a list of fifteen references were the “references which have been repeatedly relied upon in this application and any related applications.” Ex. 2002 at 2; Ex. 2003 at 2. Every one of the references cited by Petitioner in the current Petition is included in the list reviewed and acknowledged by the Examiner. Rather than bury the Examiner in references, Patent Owner is doing everything it can to make sure that the Examiner is presented with the references that, in the words of Examiner Jennison, have been “repeatedly relied upon.” Because the

Examiner already and repeatedly considered Petitioner's references and arguments, the Board should exercise its discretion to deny institution under 35 U.S.C. § 325(d).

Second, Petitioner's challenge fails because it relies on a reference that is not prior art. As confirmed by Patent Owner's expert Dr. Laurens E. Howle, based on a German priority application, the '430 Patent is entitled to a priority date at least as early as September 2, 2010, which predates the Jarisch reference upon which Petitioner relies in its Petition (Ex. 1005, Jarisch). Because Jarisch is not prior art to the claims of the '430 Patent, the single ground of the Petition fails. Again, in several recent applications Examiner Jennison confirmed priority to the German applications, stating "Examiner was updated on status of co-pending applications and recent IPR filings. The priority dates of the applications, and prior art cited, under Pre-AIA were verified." Ex. 2003 at 2; Ex. 2002 at 2; *see also* Ex. 2013 ("The other pertinent references either do not meet the priority date or, in the Examiner's opinion, are not able to be combined."). The claims in those applications have been allowed, and each claim set includes limitations for which Petitioner challenges priority here. For this independent reason, the Board should not institute the Petition.

Third, the Petition fails to show that *any* of the cited references disclose certain features recited in the '430 Patent claims. For example, Petitioner chose to withhold from the Board the arguments that it made with respect to the Jarisch reference to the District Court in its motion for summary judgment of non-infringement. If the Board

were to adopt the Petitioner’s construction of “barcode” it convinced the District Court to apply in its finding of non-infringement, then its combination fails. Petitioner has also failed to show *any* teaching of a feature in a beverage production machine whereby the machine determines if a single-serve capsule belongs to a group of single-serve capsules operable for use with the beverage machine. In addition, Petitioner has failed to show any teaching of a pump that is controlled to push water into the capsule based upon a determination that the read barcode agrees with a stored reference. Finally, although Petitioner relies on a four-reference combination, the Petition fails to show a motivation to combine the references.

Petitioner has failed to meet its “burden for proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e). For these and the additional reasons provided in this Preliminary Response, the Petition should be denied.

II. Overview of the ’430 Patent

The claims of the ’430 Patent are generally directed to a beverage system that includes a single-serve capsule containing a beverage raw material and a beverage machine (such as a coffee machine). Ex. 1001 at Abstract. The single-serve capsule has a barcode on a bottom side of a flange. A pump is controlled to push water into the capsule if it determines that the barcode agrees with a stored reference. *Id.* The

'430 Patent has two independent claims (Claims 1 and 7) and eight dependent claims (Claims 2-6, 8-10).¹

The '430 Patent is part of a family of U.S. patent applications owned by Patent Owner as shown in the table below:

Table 1 – K-fee Patent Family

Appl. No.	Filing Date	Examiner	Patent No.	IPR Status
13/744,623	01/18/13	Drew Becker	Abandoned	
15/211,823	07/15/16	Chaim Smith	Abandoned	
15/646,980	07/11/17	Chaim Smith	11,554,910	
16/438,818	06/12/19	Chaim Smith	10,994,923	IPR2023-00502 (Pending)
16/538,752	08/12/19	Chaim Smith	10,858,176	IPR2021-01221 (Institution Denied)
16/860,432	04/28/20	Brian Jennison	10,858,177	IPR2021-01222 (Institution Denied)
16/860,441	04/28/20	Chaim Smith	10,870,531	IPR2021-01223 (Institution Denied)
17/108,175	12/01/20	Brian Jennison	Allowed	
17/324,182	05/19/21	Brian Jennison	11,667,465	

¹ The Parties are in litigation in which the Petitioner's VertuoLine system meets the claim requirements, and nothing in this Preliminary Response shall be regarded as a disclaimer of claim scope.

17/330,572	05/26/21	Brian Jennison	Allowed	
17/547,363	12/10/21	Jimmy Chou	11,542,094	
17/670,629	02/14/22	Jimmy Chou	11,465,829	
17/670,765	02/14/22	Jimmy Chou	11,465,830	
17/844,372	06/20/22	Jimmy Chou	11,548,722	
17/963,392	10/11/22	Jimmy Chou	Allowed	
17/383,951	07/23/21	Brian Jennison	11,254,491	IPR2022-01574 (Instituted)
17/385,109	07/26/21	Brian Jennison	11,230,430	IPR2023-00485 (Pending)

The family claims priority to PCT No. PCT/EP2011/003677 (“the PCT application”) which was filed on July 22, 2011. The PCT application, in turn, claims priority to three German patent applications: DE 10 2010 031 988.0 filed on July 22, 2010 (Ex. 1046 or “the first German application”); DE 10 2010 044 251.8 filed on September 2, 2010 (Ex. 1047 or “the second German application”); and DE 10 2011 010 534.4 filed on February 7, 2011 (Ex. 1045 or “the third German application”) (collectively, “the German applications”).

A. The German Priority Applications

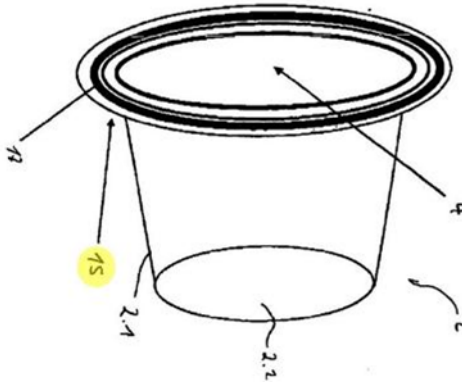
The disclosures in the first and second German application are similar in many respects, with the second German application adding features to the common inventive aspect disclosed in both applications. Both applications teach a “portion capsule” containing a beverage raw material, such as ground coffee, wherein the portion capsule has an “identifier” to indicate that the portion capsule is “suitable just for a quite specific coffee machine.” Ex. 1046 at 22; Ex. 1047 at 30. The

disclosed invention can thus prevent potential serious safety problems and/or damage to the coffee machine that may arise from the use of a capsule that is “not suitable” for a particular coffee machine. *Id.* The applications specify this aspect of the invention as follows:

A sensor/detection means provided on the coffee machine senses this identifier and compares it preferably with a stored identifier. The coffee machine, in particular, the pressure pump thereof, which makes the water available, can preferably be operated only when the identifier determined coincides with the reference identifier. Otherwise, the coffee machine cannot be operated.

Ex. 1046 at 23; Ex. 1047 at 31.

The applications specify that the identifier may take a variety of forms and is “preferably a machine-readable print...preferably a barcode, a logo or a repeat pattern.” Ex. 1046 at 24; Ex. 1047 at 33. Importantly, the applications state that the disclosures with respect to the identifiers are broadly applicable to all of the disclosed embodiments or examples, specifically stating that “[w]hat has been said in relation to the identifier applies to all other examples.” Ex. 1046 at 28; Ex. 1047 at 38. Immediately after that statement, the applications describe Figure 2, stating that “it is possible, as symbolized by the arrow 15, for the barcode to be provided on that side of the peripheral region of the basic element which is directed away from the membrane.” Ex. 1046 at 28; Ex. 1047 at 38.



Ex. 1046 and Ex. 1047 at Fig. 2 (annotated).

The identifier can be used to control the operation of the coffee machine:

Once the identifier has been sensed, it is compared with a reference identifier and, for the case where these are identical, operation of the coffee machine is permitted. For the case where these identifiers do not coincide, in particular operation of the pump which forces, for example, hot water through the brewing chamber is prevented.

Ex. 1046, at 28; Ex. 1047 at 37-38.

B. Prosecution of the '430 Patent

During prosecution of the '430 Patent, Examiner Jennison considered each of the four references Petitioner relies upon here. Patent Owner submitted for consideration the ultimately unsuccessful Petitions for *inter partes* review against three other patents in this patent family. *See* Ex. 1002, Part 1 at 301. Even after the Examiner mailed a Notice of Allowability, Patent Owner complied with its duty of candor to the USPTO by submitting all of the information concerning validity that Petitioner asserted against patents related to the '430 Patent in a co-pending district court litigation. *See* Ex. 1002, Part 1 at 232, 304, 321-24 (showing submission of

Petitioner's Preliminary Invalidity Contentions and Claim Charts from Civ. No. 2:21-cv-3402 GW(ARGx) dated Sept. 22, 2021). Examiner Jennison considered all of these submissions. *See* Ex. 1002, Part 1 at 301; Ex. 1002, Part 4 at 422.

Examiner Jennison was well aware of the prior art landscape, including the now-cited art, in this and related applications. In his November 2, 2021 Notice of Allowance, Examiner Jennison pointed out the numerous limitations not disclosed by the cited art. Ex. 1002, Part 1 at 233.

Additionally, approximately one month after issuing the Notice of Allowance for the '430 Patent, Examiner Jennison issued a Notice of Allowance for contemporaneously-prosecuted U.S. Patent Appl. No. 17/383,951 (the "'951 Application") in this patent family, concluding 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." Ex. 1002 at 334-339, 406-407; Ex. 2001 at 1815.

In addition, in an *Examiner-Initiated Interview Summary* in two applications related to the '430 patent, Examiner Jennison verified the priority dates in light of the co-pending applications and recent IPRs; acknowledged that the number of references filed in the IDS documents is not excessive; and confirmed the

identification of the references that had been repeatedly relied upon in the applications he had Examined:

Other

Examiner was updated on status of co-pending applications and recent IPR filings. The priority dates of the applications, and prior art cited, under Pre-AIA were verified.

Examiner acknowledges the number of references filed in the IDS documents is not excessive or overly burdensome.

Attorney also cited the references which have been repeatedly relied upon in this application and any related applications. It was also pointed out that these seem to be most relevant to the co-pending applications.

Ex. 2003 at 2; *see also* Ex. 2002 at 2. The list of references confirmed by the Examiner include each of the references relied on in the current Petition:

Summary List of Potentially Relevant References Most Heavily Relied Upon By Petitioner

Petitioner alleges in its numerous IPR petitions that “K-fee never provided guidance on the relevance of its voluminous IDS references” (See page 2 of the ‘923 and the ‘430 Petitions).

Based upon the observed pattern and history of Petitioner and/or its affiliates world-wide filings against Applicant and its related patents, below is a summary of references that have been repeatedly relied upon by Petitioner and/or its affiliates in attacking the patentability of Applicant’s claims.

- US2008/0105131A1 (Castellani)
- US2010/0239734A1 (Yoakim)
- WO2005/044067A1 (Ruchonnet)
- WO2005/079638A1 (Panesar)
- WO2010/026053A1 (Denisart)
- WO2010/099806A1 (Rossi)
- US2002/0048621A1 (Boyd)
- WO2002/028241A1 (Boyd)
- US20060233921A1 (Mock)
- US2010/0078480A1 (Aker)
- US2012/0269933A1 (Rapparini)
- US2013/0064929A1 (Jarisch 2)
- US2013/0064937A1 (Jarisch 1)
- WO2011/141532A1 (Jarisch)
- EP0512468A1 (Fond)

Ex. 2003 at 4; Ex. 2002 at 4.

Examiner Chou was also presented with the same list of references and “did not find any issue with patent owner’s foreign priority date.” Ex. 2011 at 2, 4.

III. Claim Construction

Curiously, Petitioner’s claim construction section focuses on “apparent interpretations that Patent Owner offered in District Court,” while ignoring claim constructions that *Petitioner* proposed. Despite the narrow claim constructions that it argued to the District Court, Petitioner ultimately concludes that, “for this

proceeding, no claim terms require formal construction.” Pet. at 33. Petitioner took a very different position before the District Court, arguing that the term “barcode” means “machine readable code consisting of parallel bars of different widths that encode more than only two unique binary characters such as 0 or 1.” Ex. 1052 at 7. Petitioner argued to the District Court that its proposed construction was required by alleged statements made by Patent Owner to the EPO. *Id.* at 9-10. The District Court was convinced, adopting a construction of “[p]lain and ordinary meaning, as further explained before the EPO.” *Id.* at 11-13.

After convincing the District Court of the alleged importance of Patent Owner’s explanations to the EPO, Petitioner moved for summary judgment of non-infringement, arguing that its products – *as evidenced by the disclosure of the Jarisch reference* – use a “bit code,” not a “barcode,” as that term was construed by the Court. Ex. 2004 at 7, 11-12. The District Court agreed, granting summary judgment of non-infringement in favor of Petitioner. Ex. 2005.

Patent Owner does not agree with the District Court claim construction and the Court’s finding of summary judgment is currently on appeal to the Federal Circuit. But Petitioner should not be permitted to argue for an exceedingly narrow construction before the District Court, and then propose a broad, ordinary meaning construction here. In addition, the fact that Petitioner specifically invoked the Jarisch reference as providing evidence in its summary judgment motion for non-

infringement based on the “barcode” limitation should preclude Petitioner from relying on that same reference here.

IV. Level of Ordinary Skill in the Art

A person having ordinary skill in the art (“POSITA”) of the ’430 Patent would have a bachelor’s degree in engineering plus five years of experience in design of mechanical beverage systems, or similar products, as well as experience with sensors for recognizing an identifier. Additional education might substitute for some of the experience, and substantial experience might substitute for some of the educational background.

V. The Board Should Exercise Its Discretion to Deny Institution Under 35 U.S.C. § 325(d)

As will be discussed later, the Petition fails to demonstrate obviousness because, *inter alia*, it ignores both proof of an entire element and proof of any motivation to combine the cited art. The Petition is also incorrect about the priority of the ’430 Patent. A correct analysis of priority removes Jarisch as prior art, which is fatal to the entirety of Petitioner’s argument for unpatentability. However, the Board need not reach those issues if it properly exercises its discretion under 35 U.S.C. § 325(d).

A. The Examiner was Acutely Aware of the Prior Art Asserted in the Present Petition

On July 28, 2021, in its first IDS, the Applicant identified the three Petitions for *inter partes* review and supporting declarations that were filed by the present

Petitioner against Patent Owner's related '531, '176, and '177 Patents. Ex. 1002, Part 1 at 162. The next day, the Applicant specifically identified the same three Petitions in a Supplemental IDS. *Id.* at 165. On November 2, 2021, Examiner Jennison acknowledged that he had reviewed each of the three prior IPR Petitions and supporting declarations, which discuss in detail and at great length every reference Petitioner relies on in the current Petition. Ex. 1002, Part 1 at 298-99, 301. These three prior Petitions, in addition to the recently-filed Petition in IPR2022-01574, also cited the very same passages now asserted by Petitioner. Indeed, it appears that significant portions of the four prior Petitions and supporting declarations were copied and pasted into the current Petition and declaration. *Compare, e.g.,* Pet. at 3-13 *with* IPR2021-01574, Paper 1 (the "'491 Petition") at 3-13.

On November 12, 2021, in a separate, stand-alone IDS, the Applicant identified Petitioner's Preliminary Invalidity Contentions filed in the district court action involving Patent Owner's three related patents in the United States District Court for the Central District of California. Ex. 1002, Part 1 at 302-304. On December 7, 2021, Examiner Jennison acknowledged that he had reviewed them. *Id.* at 422.

Each reference relied on by Petitioner in the current Petition was discussed in detail and at great length in Petitioner's claim charts to support the same purported

disclosures or concepts as Petitioner argues here. *See* Ex. 1002, Part 1 at 105-149, 478-500; Part 2 at 150-341; Part 3 at 168-198, 373-414, 454-510; and Part 4 at 1-8, 365-417.

Petitioner argues that the Examiner never asserted a rejection based on the references Petitioner now cites in the Petition, but that is irrelevant. Pet. at 19. The Examiner was clearly aware of the references and their alleged relevance, and that is all that matters. The fact that the Examiner chose not to assert those references in a rejection only reinforces the deficiencies in the Petition and the reasons for exercising discretion to deny institution.

These references have also been raised during examination of related patents. For example, Examiner Jennison, who examined the '430 Patent, was also the examiner for U.S. Patent No. 11,254,491 (the "'491 Patent") and the '177 Patent (the subject of failed Petition No. IPR2021-01222). *See generally* Exs. 1001, 2006, 2007. In each case, as is apparent from the face of the patent, the Yoakim and Jarisch references were either submitted in IDSs, or cited by the Examiner himself. *See* Ex. 1001 at 3; Ex. 2006 at 3; Ex. 2007 at 3-4.

B. Petitioner's Challenges of Related K-fee Patents Are Based on the Same Prior Art and Arguments

The Board has established a two-part test to determine whether it should exercise its § 325(d) discretion: "(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, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (designated precedential Mar. 24, 2020).

The Board considers several factors in determining whether to exercise its discretion. *Id.* at 9, n.10 (citing *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17-18 (P.T.A.B. Dec. 15, 2017) (designated precedential as to § III.C.5, first paragraph Aug. 2, 2019) (“*Becton*”). Factors (a), (b), and (d) pertain to whether the same or substantially same art or arguments were previously presented, and factors (c), (e), and (f) pertain to whether the USPTO made a material error. *Id.* at 10.

As Petitioner concedes, “Yoakim and Jarisch were cited in an IDS,” and “Rossi and Castellani were mentioned within the IPRs that were cited in the IDS,” which is “sufficient under Part 1 of the *Advanced Bionics* framework to require analysis of Part 2.” Pet. at 19 (citing IPR2021-01221, Paper 9, 16 (PTAB May 6, 2022)). Petitioner’s concession of Part 1 comes as no surprise because the Examiner did not overlook the four asserted references. Indeed, the Examiner indicated that they were specifically considered during prosecution by noting that “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.W.J/.”

See, e.g., Ex. 1002, Part 1 at 301; Ex. 1002, Part 4 at 422; *see also J&M Indus. v. Raven Indus.*, 574 F. Supp. 3d 941, 955-56 (D. Kan. 2021).

With respect to Part 2 of the *Advanced Bionics* inquiry, however, Petitioner argues that during prosecution, the Examiner committed errors “material to the patentability of the challenged claims” by “misapprehending or overlooking specific teachings in the relevant prior art” that, had they been properly considered, would have led the Examiner to conclude that the challenged claims are not patentable. However, rather than identify any specific error, Petitioner argues that the Examiner misapprehended the relevance of certain references because of the number of references submitted during prosecution. In doing so, Petitioner fails to acknowledge that the volume of references was due in-part to Petitioner’s own assertion of voluminous art in litigation and opposition proceedings of related patents. Petitioner has filed more than ten adversarial proceedings against Patent Owner, and in each one makes voluminous assertions about the state of the art in efforts to undermine the validity of the patents arising from this family.

Even more troubling, Petitioner barely acknowledges that Patent Owner provided the Examiner with copies of Petitioner’s litigation documents that specifically identified the references—and the allegedly relevant passages—upon which Petitioner now relies. In particular, Patent Owner provided the Examiner with the three prior petitions for *inter partes* review and the invalidity contentions that

referenced detailed claim charts authored by Petitioner. The petitions for *inter partes* review and the claim charts included citations to the very same passages on which Petitioner now relies in this current Petition.

1. Becton Factors (a), (b), and (d): Petitioner Presents the Same References and Arguments as Presented During Prosecution

As to (a) and (b) of the *Becton* factors, there is no dispute that the same references were previously presented to the USPTO. Petitioner admits as much when it states that “Yoakim and Jarisch were cited in an IDS” and “Rossi and Castellani were mentioned within the IPRs that were cited in the IDS.” Pet. at 19. As explained above in Section V.A., Patent Owner identified Yoakim and Jarisch in an IDS, and the Examiner acknowledged consideration of these references by not crossing them out. *See, e.g., Roku, Inc. v. Universal Electronics, Inc.*, IPR2019-01619, Paper 11 at 1, 2021 WL 2123912, at *1, *3 (P.T.A.B. May 25, 2021) (finding art submitted on an IDS and not crossed through had been previously considered by Examiner). The Examiner was also aware of Rossi and Castellani, at least because Patent Owner submitted a copy of Petitioner’s petition for *inter partes* review of the ’531 Patent, which discussed Rossi and Castellani in detail.

Not only does Petitioner rely on the same prior art that it has repeatedly cited in previous unsuccessful challenges, but as to factor (d), there is also tremendous “overlap between the arguments made during examination and the manner in which petitioner relies on the prior art.” *Advanced Bionics* at 9, n.10 (citation omitted).

Several of the arguments in the Petition appeared word-for-word in Petitioner's previous invalidity claim charts (mapped to different, related K-fee patents), and seem to be copied directly from other petitions for review of related patents. Several references (including, for example, Rossi and Jarisch) formed the basis of rejections during the prosecution of related applications (including, for example, the '176 and '531 Patents), which the Board is entitled to consider. *See, e.g., II-VI, Inc. v. Soto*, IPR2021-01361, Paper 10 at 26, 2022 WL 494813, at *10 (P.T.A.B. Feb. 15, 2022); *Volkswagen Grp. of Am., Inc. v. Stratosaudio, Inc.*, IPR2021-00718, Paper 16 at 21, 23, 2021 WL 5194887, at *9-*10.

a. Yoakim

Examiner Jennison considered both Yoakim (Ex. 1002 at 228) and Petitioner's detailed analysis of Yoakim as applied to related patents, which Patent Owner also dutifully disclosed to the Examiner. For example, in Petitioner's claim chart C-9 mapping the alleged disclosures of Yoakim against certain claims of the '531 Patent. Ex. 1002, Part at 394-96 (citing Yoakim at [0025], [0192], [0477]). Petitioner now relies on the very same disclosure to argue here that Yoakim discloses a pump controlled to push water into the single-serve capsule based on the detection of the barcode identification means by the sensor/detector. Pet. at 71-71 (citing Yoakim at [0477], [0025], [0192], [0218]).

The Examiner was also presented with similar arguments in the prior Petitions for *inter partes* review of the related patents. In both of the Petitions for review of the '177 and '531 Patents, Petitioner relies on the very same disclosure of Yoakim at [0477] to argue that the pump in Yoakim would not operate to push water into the capsule without a successful barcode comparison to stored references. *See* IPR2021-01222, Paper 1 at 37; IPR2021-01223, Paper 1 at 38-9.

b. Jarisch

Examiner Jennison considered Jarisch during prosecution of the '430 Patent. Ex. 1002, Part 1 at 143. Moreover, applications related to Jarisch, including US2013/0064929 (“Jarisch 929”) and WO 2011/141532 (which is the publication of PCT/EP11/057657, to which Jarisch claims priority), were the subject of past examination rejections, and were used to support arguments similar to the ones Petitioner makes here in Petitions for review of three related patents. *See, e.g.*, Ex. 2008 at 35; Ex. 2009 at 13. Appendix C, an obviousness chart for the '531 Patent, was among the materials Patent Owner provided the Examiner. Ex. 1002, Part 3 at 110-116 (citing Jarisch at [0016]-[0017]).

Patent Owner overcame rejections based on the Examiner’s reliance on Jarisch during the prosecution of related patents in the patent family. For example, during prosecution of the application leading to the '176 Patent, Examiner Smith issued two non-final rejections of obviousness based at least in part on Jarisch. *See,*

e.g., Ex. 2008 at 30-36. Petitioner relies on Jarisch to present the same arguments that have been rejected in past unsuccessful challenges to Patent Owner's patents.

c. Rossi

Examiner Jennison considered Rossi through the submission of Petitioner's invalidity claim charts and prior Petitions for review of the related family patents and their accompanying declarations. Ex. 1002, Part 2 at 264, 272-73 (citing Rossi at 3, 5-6); Part 3 at 216-218 (Appendix C (citing Rossi at 7-10)). Petitioner cites many of the same portions of Rossi in its current Petition to argue (albeit incorrectly) that Rossi discloses controlling the pump to push water into the single-serve capsule only upon a determination that the read barcode agrees with a stored reference. Pet. at 72 (citing the same language Rossi at 11).

Rossi was also raised in the declarations accompanying the three prior Petitions for review of the '177, '176 and '531 Patents. In those declarations, Rossi was described as having an equivalent disclosure as the Ruchonnet (US 2005/044067) and Lillard (US 2009/0205747) references. IPR2021-01221, Ex. 1003 at ¶¶102-107; IPR2021-01222, Ex. 1003 at ¶¶102-107; IPR2021-01223, Ex. 1003 at ¶¶102-107. At *that* time, Petitioner's expert explained that Rossi was "directed to a beverage extraction system that reads a barcode located on the base of the capsule, compares the information to a stored value, and brews the capsule accordingly."

IPR2021-01221, Ex. 1003 at ¶105; IPR2021-01222, Ex. 1003 at ¶105; IPR2021-01223, Ex. 1003 at ¶105.

d. Castellani

Castellani was also before the Examiner, as it was asserted in the previous Petitions for review submitted by Patent Owner. *See* IPR2021-01222, Paper 1 at 52-55; IPR2021-01223, Paper 1 at 52. In this Petition, Petitioner cites Castellani as disclosing “a pair of holding arms (fork element 21) for engaging the single-serve capsule,” Pet. at 70, and a “dropping box” “for the single-serve capsule to fall into.” *Id.* at 71.

2. Becton Factors (c), (e), and (f): The USPTO Did Not Make a Material Error in Allowing the Claims

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

As explained above in Sections II.B and V.A, each reference was evaluated by the Examiner during the prosecution of the '430 Patent. The thorough disclosure of numerous references, many of which were cited in multiple adversarial proceedings initiated by Petitioner, was not a “prosecution tactic[]” meant to “bury” the Examiner as Petitioner contends, Pet. at 20-21, but rather Patent Owner’s good faith compliance with its duty to disclose information material to patentability. *See, e.g., ESCO Corp. v. Cashman Equip. Co.*, 158 F. Supp. 3d 1051, 1062-63 (D. Nev. 2016). Indeed, Examiner Jennison has “acknowledge[d] the number of references

filed in the IDS documents is not excessive or overly burdensome” in a recent interview with Patent Owner. Ex. 2002 at 2; Ex. 2003 at 2.

Patent Owner filed three IDSs during prosecution of the '430 Patent. In its first IDS, Patent Owner included references from previous related examinations in the patent family, including foreign prosecution and observation documents, opposition documents, suggestions for interference, and cited documents and exhibits. Ex. 1002, Part 1 at 135-62.

The remaining IDS's were filed in response to Petitioner's on-going filings in parallel proceedings against Patent Owner. The following table identifies the parallel proceedings between the parties, which were initiated by Petitioner (or one of the Real Parties in Interest) and where Petitioner or its affiliate identified references that were submitted in the IDSs.

Table 2 – Parallel Proceedings

Proceeding	Date
Opposition filed against EP3023362B1	07/25/18
Opposition filed against EP3521210B1	01/08/20
Opposition filed against EP3521207B1	01/22/20
Opposition filed against EP3521209B1	01/22/20
Opposition filed against EP3521208B1	02/19/20
Nullity suit against French parts of EP3023362B1, EP3521208B1 and EP3521209B1	06/15/21
Petition For Inter Partes Review US 10,858,176	07/12/21
Petition For Inter Partes Review US 10,858,177	07/12/21
Petition For Inter Partes Review US 10,870,531	07/12/21
Third Party Observations against EP3533726A1	08/26/21
Case No. 2:21-cv-3402 (Invalidity Contentions)	09/22/21

Petition For Inter Partes Review US 11,230,430	01/24/2023
Petition For Inter Partes Review US 10,994,923	01/24/2023

In 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. And far from “burying” the relevant references, as Petitioner suggests, Petitioner has made efforts to draw Examiners’ attention to the same references that Petitioners have repeatedly cited against Patent Owner’s patent applications. For example, during an April 6, 2023 applicant-initiated interview with Examiner Jennison regarding co-pending applications in this patent family, Applicant provided him with a list of 15 references (among them all references at issue here) that have been repeatedly relied upon by Petitioner in attacking the patentability of Applicant’s claims. Ex. 2002 at 4; Ex. 2003 at 4. Examiner Jennison acknowledged that “these [references] seem to be the most relevant to the co-pending applications.” Ex. 2002 at 2; Ex. 2003 at 2.

Petitioner further concedes that “the Office considered Jarisch during examination of Appl. No. 16,860,441 (“the ’441 Application”) and the ’752 Application,” yet still alleges examiner error because the Office “has never disagreed on record with the relevance of Jarisch’s disclosure to K-fee’s claim limitation of a code on the bottom of the capsule flange.” Pet. at 22-23. Notwithstanding the fact that the Examiner allowed the claims after Applicant amended them to recite

additional limitations, there can be no argument that Jarisch was not thoroughly evaluated during examination. Indeed, Examiner Smith had considered Jarisch multiple times for its purported disclosure of an optical code placed on the bottom side of a flange, a limitation similar to the “barcode provided on the bottom side of the flange” limitation at issue here. Petitioner must concede that Examiner Smith specifically considered at least Rossi and Jarisch during the prosecution of the ’430 Patent, against the same language Petitioner asserts is ignored.

b. Factor (e): whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art

Petitioner has failed to point out how the Examiner erred in its evaluation of the asserted art. Rather, Petitioner merely reiterates its same arguments regarding the Examiner “overlooking or misapprehending the specific prior art disclosures.” Pet. at 24. For the same reasons as explained above in Section V.A, it cannot be believed that the Examiner and the Board were 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.

Rather than identify error, Petitioner instead presents a chart that attempts to identify disclosure in the cited references that it believes is relevant to the claim limitations of the ’430 Patent. Pet. at 26-27. In doing so, however, Petitioner instead identifies references that are not prior art (Jarisch) as addressed in Section VI, and

references that do not disclose the relevant limitation of the '430 Patent (Rossi) as addressed in Section VII.A. Indeed, Petitioner's table instead demonstrates that the alleged disclosure is missing from the Rossi reference. Rather than evidence error, Petitioner's table confirms that Examiner Jennison was correct in discarding the Rossi reference during prosecution.

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

Petitioner has presented no additional facts that would warrant reconsideration of the cited art or arguments. Petitioner cites the same references (and oftentimes the exact same passages) for the same reasons as it has in past examinations and Petitions. Given these similarities, the only avenue for argument available to Petitioner is to argue that the Examiner and the Board were unscrupulous in indicating that they had reviewed the references.

Petitioner states that “[a] full reading and analysis of the Grounds presented in this Petition as supported by Michael Jobin’s declaration demonstrates the strength of this Petition.” Pet. at 30. But the Board has recently found that expert testimony alone is an insufficient basis for establishing material error. *See* IPR2021-01223, Paper 9 at 30.

VI. Ground 1 Fails Because Jarisch is not Prior Art

A. Patent Owner’s German Priority Applications Antedate Jarisch 929

In the three previous Petitions filed by Petitioner against this family of patents (IPR2021-01221, IPR2021-01222 and IPR2021-01223), Petitioner argued that the German applications collectively failed to provide priority support. Specifically, despite an abundance of evidence that Patent Owner was clearly in possession of the claimed invention at the time of the German priority applications, Petitioner nonetheless argued that priority was unavailable because no *single* foreign priority application disclosed each and every feature of the claims. Petitioner *now* pursues a different but equally futile approach arguing that the disclosure *within* a single reference is *also* unavailable because the description of the relevant limitations purportedly appears in discrete embodiments. Petitioner also argues that certain limitations are not disclosed at all, despite clear written description to the contrary. Petitioner is wrong on both the facts and the law, and the Patent Office has already rejected Petitioner's argument.

1. The USPTO Has Already Rejected Petitioner's Priority Arguments

The USPTO has repeatedly addressed priority and has already specifically settled in Patent Owner's favor the very same priority issue Petitioner now raises. In an April 4, 2022 Office Action in related U.S. Application No. 17/547,363 (the "'363 Application," now U.S. Patent No. 11,542,094), Examiner Chou initially concluded that the German application did not provide support:

The disclosure of the prior-filed applications, Applications No. **DE 19 2010 031 988.0, DE 10 2010 044 251.8, and DE 16 2011 010 5384.4**, as well as US Applications **13/744,623, 15/211823, and 15/646,980** fail to provide adequate support or enablement in the manner provided by 35 U.S.C. 112(a) or pre-AIA 35 U.S.C. 112, first paragraph for one or more claims of this application. Claims **10-29** are directed to a beverage system. However, there is no disclosure of the below claim limitations in the above identified applications to teach or suggest the combination of features of independent claims such as (1) chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis, (2) the cover is bowed outwardly, (3) the capsule receptacle defined by a base portion and an annular portion, (4) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule holder and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule and (5) 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 the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel, found in any of applicant's prior filed applications. Therefore for claims in the current application are not entitled to the benefit of the claimed priority dates, foreign or domestic and the priority date is the filing date of the application, that is **10 December 2021**.

Ex. 2010 at 3-4 (emphasis in original).

However, in a subsequent interview on June 14, 2022 Applicant directed Examiner Chou to the same supporting disclosure that Patent Owner cites below, including the statement in the second German application that the “identifier applies to all other examples” and the disclosure of the embodiment described in Figure 16. In light of that disclosure, Examiner Chou withdrew the priority notification and confirmed that the German application *does* provide support:

Discuss about Foreign priority document. The attorney stated that the support can be found on "On pg 6, at lines 23-26. On pg.9, i.e., what has been said in relation to the identifier applies to all other examples

... as symbolized by the arrow 15. Examiner noted that the arrow pointed at the bottom side of flange of a capsule. ***Examiner agreed that fig.16A is an example of the capsule that can be with a beverage machine.*** Thus, priority notification will be withdrawn.

Id. at 11 (emphasis added). The second German application fully supports the Examiner's determination, and Petitioner provides no reason for the Board to reach a different conclusion.

In ***two other*** related applications, U.S. Application Nos. 17/670,629 (the "'629 Application," now U.S. Patent No. 11,465,829) and 17/670,765 (the "'765 Application," now U.S. Patent No. 11,465,830), Examiner Chou initially reached similar conclusions regarding priority date and support for the drawings filed with the applications. *See, e.g.*, Ex. 2014 at 6-7, 18-19; Ex. 2015 at 7-10. However, for similar reasons as discussed above, the Examiner withdrew his drawing objections after an interview with Patent Owner identifying support in the German applications:

Discussed about the drawing objections. The attorney argues that the support can be found on page 6, 23-26, i.e., the invention will be explained herein below with reference to figures 1-18. These explanations do not have a limiting effect on the general concept of the invention; on page 9 lines 8-9, 11-27, i.e., what has been said in relation to the identifier applies to all other examples ... it is possible as symbolized by the arrow 15, for the barcode to be provided on that side of the peripheral region; on page 12, lines 13-35 and on page 17-19; on page 8 at lines 35-38, i.e., convexities 8 constitutes the identifier. On page 17, claim 7 can be depend on claim 3 so that both identifier features can be added in independent claim. Thus, the drawing objections have been withdrawn."

Ex. 2015 at 2; *see also* Ex. 2014 at 2. Patent Owner and Examiner Chou then discussed the priority claims, and Examiner Chou concluded that “[t]he support can be found in the above drawing objection section.” Ex. 2015 at 2; Ex. 2014 at 2.

Shortly after the interview with the Examiner, Applicant submitted remarks thanking Examiner Chou for acknowledging that Applicant was in possession of the claimed subject matter in the priority applications, and for withdrawing his drawing objection and priority notification. Ex. 2010 at 21. In particular, Applicant traversed the Examiner’s drawing objection by explaining that “various teachings in the written description and drawing breathe meaning and inherency into claim terms and certain claim features implicitly give rise to the presence of others,” such as those depicted in Figures 16a and 16b. *Id.* at 23. In overcoming the priority notification, Applicant stated that “[i]t appeared to have been understood by the Examiner that the support need not have been verbatim, and that the drawings taken in connection with the text portion of the specification (including the multiple dependent claims) was to be considered.” *Id.* at 21.²

² During the prosecution of related Application Nos. 17/670,765 and 17/670,629, entitlement to the German priority applications were also at issue. Patent Owner also overcame those priority rejections.

More recently, in an Applicant-initiated interview with Examiner Chou, Patent Owner apprised him of the status of the various related IPR filings and brought to his attention the 15 references that Petitioner has consistently used in challenging the validity of Patent Owner's applications. *See* Ex. 2011. Examiner Chou concluded that he had "reviewed these references and did not find any issue with patent owner's foreign priority date." *Id.* at 2.

In addition, during the prosecution of the related '491 Patent, when Examiner Jennison cited Jarisch in his Notice of References Cited, Patent Owner noted that "certain references cited by the Examiner in the 'Notice of References Cited' section of the Office Action are not prior art, in view of Applicant's entitlement to at least the claimed September 02, 2010 priority application," which predates Jarisch 929. Ex. 2012 at 1899. And finally, when discussing the status of the numerous IPR filings and co-pending applications in this patent family, Examiner Jennison concluded that "[t]he priority dates of the applications, and prior art cited, under Pre-AIA were verified." Ex. 2003 at 2; *see also* Ex. 2002 at 2. The Office continues to affirm Patent Owner's entitlement to priority to its foreign applications.

2. The Second German Application Provides Priority Support

Detailed analysis of the second German application confirms that the USPTO reached the correct conclusion each time it has addressed the priority of

the applications in this patent family. A POSITA would have understood that the embodiment disclosed in Figures 16, 17, and 18 of the second German application alone satisfies the written description requirement, reciting every limitation in each of the claims of the '430 Patent. *See generally* Ex. 2001 at ¶¶45-67. Indeed, “[t]he written description requirement does not require the applicant ‘to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.’” *Union Oil Co. of Cal. v. Atlantic Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000) (citation omitted); *Ex Parte Sims*, Appeal 2018-003749, 2019 Pat. App. LEXIS 4077, at *11 (P.T.A.B. June 24, 2019) (finding that the specification provided adequate written description support because it explicitly stated that “[a]ny embodiments described in one or more of such patent applications and/or herein may be used in any combination with one or more embodiments described herein in any combination”). Additional relevant disclosure can be found, for example, in Figures 1 and 2 and the accompanying written description for each of Figures 1, 2, 16, 17, and 18.

The second German application teaches a “portion capsule” which contains a beverage raw material, such as ground coffee, wherein the portion capsule has an identifier, such as one in the form of a barcode. As described with respect to the embodiment depicted in Figure 16, the identifier can be “a...detection means to be

sensed by a detector,” which indicates “whether the respective portion capsule is suitable for the respective coffee machine.” Ex. 1047 at 34-36, 41, Fig. 16; *see also id.* at 30. The disclosed invention thus prevents “considerable safety-related problems” and/or damage to the coffee machine that may arise from the use of a capsule that is “not suitable” for a particular coffee machine. *Id.* at 30.

As additional support, the second German application describes 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.” Ex. 1047 at 35. After 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.” Ex. 1047 at 38. The very next “example” is Figure 2, which provides additional disclosure regarding the location of the identifier on the capsule. A POSITA would have understood upon reading the second German application that the capsule features described would be intended to be combinable with each of the described embodiments. Ex. 2001 at ¶¶68-72.

The claims that are included at the end of the application further support the notion that the invention is a portion capsule, which can have any number of features that are introduced in connection with the different Figures and examples in the application. Petitioner’s reliance on *FWP IP ApS v. Biogen MA, Inc.*, 749

Fed. Appx. 969, 977 (Fed. Cir. 2018) to suggest that multiple-dependent claims cannot satisfy the written description requirement under any circumstances is wrong. In that case, the multiple-dependent claims resulted in a tangled mess of combinations of diseases, dosages, dosing schedules, active ingredients, and formulations, which did not demonstrate that the patentee had possession of and invented the claimed unpredictable biotechnology invention. *Id.* at 977. A review of the underlying application in that case reveals that the number of potential combinations occasioned by the multiple dependent claims was in the thousands.

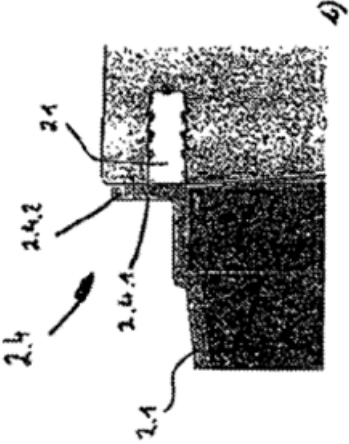
Here, the combinable elements in the second German application are not only more limited in scope, but the specification provides guidance for how to combine them. *See* Ex. 1047 at 38 (“What has been said in relation to the identifier applies to all other examples”). Moreover, the reliance upon the multiple dependent claims in this case has been for the purpose of demonstrating that the inventor contemplated that features from one embodiment were not confined solely to that individual embodiment. Rather, 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. Indeed, in withdrawing his drawing objections during the examination of the related ’765 Application, Examiner Chou considered the multiple dependent claims of the second German

application as sufficient for support for priority entitlement. Ex. 2015 at 2 (“[C]laim 7 can [] depend on claim 3 so that both identifier features can be added in independent claim.”). The Petitioner has pointed to no evidence in the second German application that would militate any contrary outcome. Petitioner has pointed to nothing in the application that would prevent the linkage of the embodiments.³

The following Table 3 maps the support for each limitation of claim 1 to Figures 16, 17, and 18 (which “show different embodiments of the portion capsule according to figure 16”) of the second German application, Ex. 1047 at 36, and the associated descriptions in the specification. Nothing herein should be interpreted as limiting the scope of identifier to the specific embodiment of these Figures, in view of the other teachings mentioned, in which other identifiers can be employed. Additional support from, *inter alia*, Figures 1 and 2 is also recited in order to further demonstrate the applicant was in possession of the claimed invention:

³ It should be noted that when *Petitioner* attempted to demonstrate written description support in order to invoke an interference with Patent Owner, Petitioner was perfectly willing to link embodiments, cite to numerous different figures and rely on multiple dependent claims from the Jarisch EP application (EP 10169374.5). Ex. 2015, at 38-39 and *passim*.

Table 3 – Comparison of Claim 1 to the second German application

'430 Patent	Second German application
1. A beverage system for making a beverage, comprising:	An object of the invention is to provide a capsule that is suitable for a particular <i>coffee machine</i> . See, e.g., Ex. 1047 at 30; Ex. 2001 at ¶46.
[1.a] a single-serve capsule comprising: a base element with a cavity, in which a raw beverage material is provided	Figure 16, an embodiment of the claimed portion capsule, has “a basic element 2, which in the present case is essentially conical and has a wall 2.1 and a base region 2.2. The raw material . . . [is] provided in this basic element.” Ex. 1047 at 41; Ex. 2001 at ¶¶47-48.
[1.b] a flange extending outwardly from the base element, the flange comprising a top side and an opposing bottom side;	“<i>An annular peripheral region 2.4, onto which for example a cover sheet is sealed, is arranged at that end of the basic element which is located opposite the base region 2.2.</i>” Ex. 1047 at 41. As depicted in Figure 16(b), the peripheral region has an upper side and an opposing bottom side. Ex. 2001 at ¶49.  Figure 2 confirms that the invention includes a flange extending outwardly from the base element. <i>Id.</i>

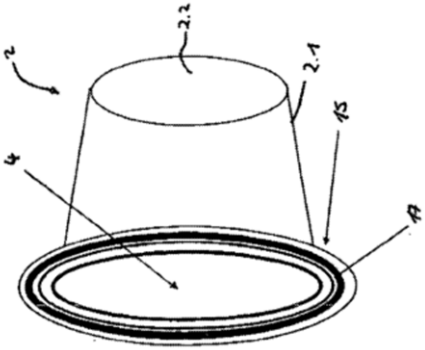
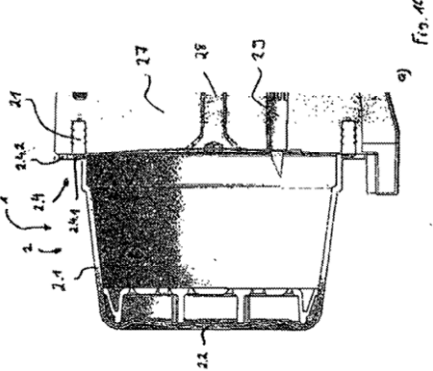
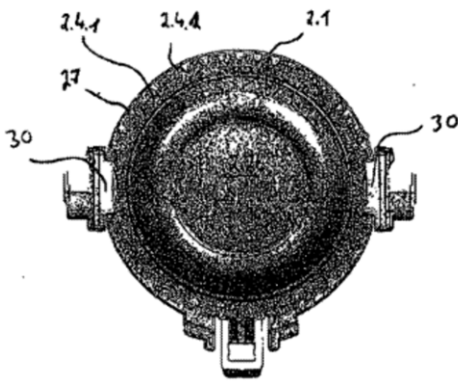
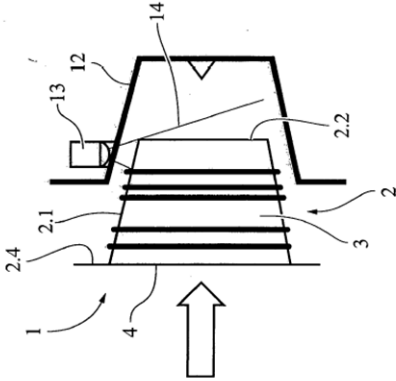
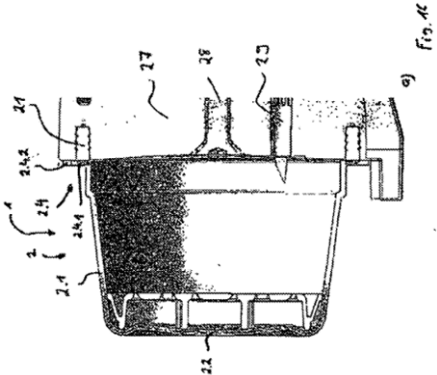
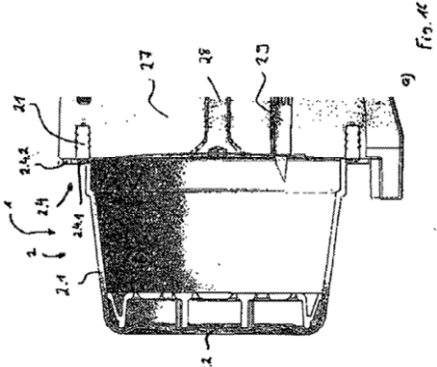
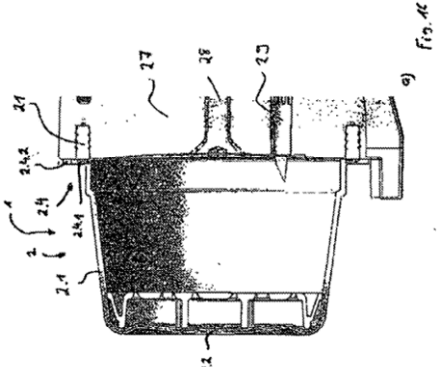
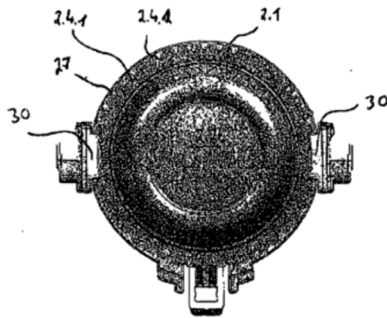
	
[1.c] a cover that is fastened to the top side of the flange to close the cavity;	”An “annular peripheral region 2.4, <i>onto which for example a cover sheet is sealed, is arranged at that end of the basic element which is located opposite the base region 2.2.</i>” Ex. 1047 at 41; Ex. 2001 at ¶50. 
[1.d] and a barcode provided on the bottom side of the flange; and	With respect to Figure 16, the application discloses that the “peripheral region 2.4 has, in its outer region, a form-fitting and/or friction-fitting means <i>and/or a detection means 2.4.2.</i>” Ex. 1047 at 41. While the means 2.4.2 can be a toothed ring as depicted in Figures 16 and 17(a)-(c), a POSITA would have understood that other “detection means” such as the barcode disclosed with respect to Figure 2 could be located on the bottom side of the flange instead of the toothed ring. Ex. 2001 at ¶¶51-52.

	Figure 17a depicts the repeated toothed ring identifier on the bottom side of the flange at 2.4.2, but a POSITA would have understood that other “detection means” could be used instead. Ex. 1043 at 42; Ex. 2001 at ¶¶51-52.  Fig. 17a In a description of the different identifiers that could be used with the portion capsule, the application describes that “[t]he identifier is further preferably a machine-readable print,” and the “print is preferably a barcode, a logo or a repeat pattern.” Ex. 1047 at 33. Figure 2 also depicts the barcode on the bottom side of the flange which further informs the understanding of a POSITA reviewing the application. Ex. 2001 at ¶¶51-52, 71.
[1.e] a beverage machine comprising: a sensor/detector configured to read the barcode;	The means 2.4.2 in Figure 16 is sensed “in order to establish whether the respective portion capsule is suitable for the respective coffee machine.” Ex. 1047 at 35.

	“As an alternative, or in addition, however, it is also possible for these form-fitting, friction-fitting and/or detection means to be sensed by a detector, in order to establish whether the respective portion capsule is suitable for the respective coffee machine.” Ex. 1047 at 35. With respect to the embodiment of Figures 16 and 17, the application further states, “[a] person skilled in the art is also aware that for example the insertion shaft may also contain a sensor, for example a camera, which senses the shape of the means 2.4.2.” <i>Id.</i> at 43; Ex. 2001 at ¶53. <i>See also</i> Figure 2 and the associated description of the location of the detector. Ex. 1047 at 38.
[1.f] a brewing chamber configured to receive the base element of the single-serve capsule and having an end portion that opposes the bottom side of the flange; and	Figure 16 depicts a brewing chamber 27: “Preferably a sealing surface 2.4.1 is provided in the peripheral region 2.4, on the inside in respect of this toothed ring, and interacts with sealing action with a seal 21, which is arranged on the brewing chamber 27.” Ex. 1047 at 41; Ex. 2001 at ¶¶54-55.

	Figure 1 provides further description: “This coffee capsule is introduced into a brewing chamber 12 (illustrated schematically here).” Ex. 1047 at 37. 
[1.g] a pump controlled to supply water into the single-serve capsule;	The general description in the application describes that “[t]he coffee machine, in particular, the pressure pump thereof, which makes the water available, can preferably be operated only when the identifier determined coincides with the reference identifier. Otherwise, the coffee machine cannot be operated.” Ex. 1047 at 31. Specifically with respect to Figure 16, the accompanying text describes the flow of water through a water inlet 28 and into the capsule, and then out through the opening made by a mandrel or piercing spike. <i>Id.</i> at 41; Ex. 2001 at ¶56.
[1.h] wherein the single-serve capsule is free of a filter that is located inside of the cavity,	Figure 16 depicts that “[t]he raw material and, <i>if appropriate</i>, inserts, in this case a filter, are provided in this basic element.” Ex. 1047 at 41. Ex. 2001 at ¶57.
[1.i] the single-serve capsule also comprises: (i) an upper end portion that	Figure 16 depicts the portion capsule where the cover (lid foil) is bowed

has an annular convexity and a lower end portion that has an annular concavity relative to the central axis of the base element;	outwardly (convex).  A POSITA would have understood Figure 16 to depict a convex (not flat) cover and a bottom region with a concavity. Ex. 2001 at ¶¶58-59.
[1.j] (ii) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule;	The application describes generally that a “barrier layer” may be present in the portion capsule, which “prevents moisture or aroma from escaping from the capsule, and/or steam or oxygen from penetrating into the capsule.” Ex. 1047 at 32. With respect to Figure 16, the application similarly describes, “[a]n annular peripheral region 2.4, onto which for example <i>a cover sheet</i> is sealed, is arranged at that end of the basic element which is located opposite the base region 2.2.” Ex. 1047 at 41 (emphasis added); Ex. 2001 at ¶60.
[1.k] wherein the beverage machine also comprises: (i) a mandrel that is configured to pierce the cover in a region that is offset from the central axis of the base element;	Figure 16 depicts a “spike” (also called a mandrel) for piercing the cover at a location offset from the central longitudinal axis. <i>See also</i> Ex. 1047 at 41 (“an opening . . . produced by the piercing spike 29”). Ex. 2001 at ¶61.

	
[1.l] (ii) a seal that is configured to seal against the cover in a region between a peripheral edge of the flange and the region of the cover that is pierced by the mandrel;	The “seal” is depicted in Figure 16 at 21 as being sealed between the region of the cover pierced by the “spike” or mandrel, and the peripheral edge of the cover. Ex. 2001 at ¶62. 
[1.m] (iii) a pair of holding arms for engaging the single-serve capsule; and	Figures 17a-17c “show how the 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.” Ex. 1047 at 42; Ex. 2001 at ¶63. 
[1.n] (iv) a dropping box for the single-serve capsule to fall into;	The machines of Figure 17 are described to have a “waste container”

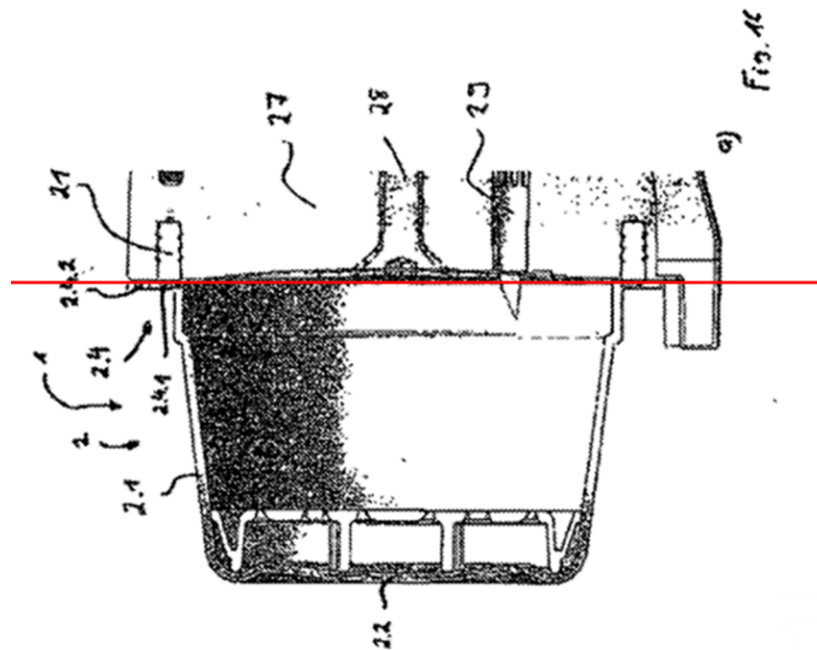
	or dropping box that capsules “would drop through.” Ex. 1047 at 42; Ex. 2001 at ¶64.
[1.o] wherein the pump is controlled to push the water into the single-serve capsule only upon a determination that the read barcode agrees with a stored reference.	With respect to Figure 16, the application provides that an example of an identifier is the “form-fitting, friction-fitting and/or detection means to be sensed by a detector,” such as a toothed ring or barcode.” Ex. 1047 at 41; Ex. 2001 at ¶¶65, 51-52. Further, the insertion shaft may also contain a sensor to detect the shape of the form-fitting, friction-fitting, and/or detection means. Ex. 1047 at 43. “This signal, in turn, is passed to a control means, which frees, for example, the brewing chamber if the capsule is the correct one.” <i>Id.</i>; Ex. 2001 at ¶51-52, 65-66. The general description in the application states that “[a] sensor/detection means provided on the coffee machine preferably senses this identifier and compares it preferably with a stored identifier. The coffee machine, in particular, the pressure pump thereof, which makes the water available, can preferably be operated only when the identifier determined coincides with the reference identifier. Otherwise, the coffee machine cannot be operated.” Ex. 1047 at 31; <i>see also id.</i> at 38 (“For the case where these identifiers do not coincide, in particular operation of the pump which forces, for example, hot water through the brewing is prevented.”); 33 (“the identifier makes it possible for the coffee machine...to set the beverage-making or food-making process, i.e. for

	example the quantity of water, the pressure thereof and/or the temperature thereof.”). Ex. 2001 at ¶51-52, 65-66.
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As is evident from the foregoing table, a POSITA reading the second German application would have understood each limitation of claim 1 of the '430 patent to be recited at least in Figures 16, 17, and 18, and/or the associated description of that embodiment in the second German application. *See generally* Ex. 2001 at ¶52. The same is true for every limitation of every other claim of the '430 Patent. As such, the claims of the '430 Patent are entitled to the priority date of at least the second German application, September 2, 2010, which means that the Jarisch reference is not prior art.

The second German application very clearly discloses an “upper end portion that has an annular convexity and a lower end portion that has an annular concavity relative to the central axis of the base element.” Petitioner describes various of the Figures in order to argue that the application provides different embodiments of capsules with purportedly flat covers instead of a convexity, but the figures that Petitioner incorrectly dismisses do in fact disclose this limitation, are part of the specification, and can thus be relied on for purposes of demonstrating support for the claim. *See Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1155 (Fed. Cir. 2004) (finding that the challenged limitation found adequate written description support in Figure 1 of the patent); *see also Nike, Inc. v. Adidas AG*, 812 F.3d 1326,

1349 (Fed. Cir. 2016). In particular, Figure 16 depicts a “cover [that] is bowed outwardly,” Ex. 2001 at XX, as can be seen relative to the added red reference line. Petitioner argues that the water inlet 28 and brewing head 27 “are flush with the flat top of the capsule membrane, which it could not be if the capsule had an annular convexity.” Pet. at 43. However, a POSITA would have understood that upon the cover being pierced by the mandrel, the once-convex cover would be flattened as the volume of air inside the capsule decreases. Ex. 2001 at ¶59.



The Examiner for the '363 Application agreed. Ex. 2010 at 11.

The only other challenge raised by Petitioner is that the embodiment of Figures 16-17 do “not disclose a capsule with a barcode located on the bottom side of the flange.” A POSITA, however, upon reading the second German application, would immediately and readily understand that the barcode on the flange of the

capsule disclosed and described with respect to Figure 2, could be applied to the capsule disclosed and described with respect to Figures 16-18. This is explicitly supported by the statement in the application that, “[w]hat has been said in relation to the identifier applies to all other examples.”

In addition, the disclosure with respect to Figures 16-18 specifically states that alternative detection means could be employed with that embodiment. In particular, with respect to Figure 16, the application discloses that the “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.*” Ex. 1047 at 41. While the means 2.4.2 can be a toothed ring as depicted in Figures 16 and 17(a)-(c), a POSITA would have understood that other “detection means” such as the barcode disclosed with respect to Figure 2 could be located on the bottom side of the flange instead of the toothed ring. Ex. 2001 at ¶45, 51-53. The application is clear that the barcode detection means described with respect to Figure 2 is an identifier that “applies to all other examples.” Petitioner identifies several additional limitations that it alleges are insufficiently supported by the disclosure of the second German application. Petitioner ultimately concedes that the limitations *are* disclosed, but takes issue because the specification “lacks any disclosure linking together the remaining features across disparate embodiments.” Pet. at 44. As an initial matter, Petitioner is incorrect because each limitation is

disclosed with respect to the single embodiment that is described in Figures 16, 17 and 18.

But in any event Petitioner does not recite the correct standard, and the cases that Petitioner cites do not compel a different result. Unlike several of the cases Petitioner cites, the claimed elements of the '430 Patent are “linked together in the specification” of at least the second German application, Figures 16, 17, and 18 in particular. *Flash-Control LLC v. Intel Corp.*, 2021 WL 2944592, 2021 U.S. App. LEXIS 20790 (Fed. Cir. July 14, 2021); *Hyatt v. Dudas*, 492 F.3d 1365, 1371 (Fed. Cir. 2007). Unlike the patentees in *Flash-Control* and *Hyatt*, Patent Owner can “show where each claimed element resides in the earliest filed application” and “provide support for the linkage of the claimed elements” of the invention. *Hyatt*, 492 F.3d at 1371.

Petitioner argues that the second German application discloses several “distinct embodiments,” arguing that it would be beyond a POSITA to understand that the identifier disclosed with respect to the beverage capsule of Figure 2, could be readily employed with the beverage capsule of Figure 16. Pet. at 41-42. But the second German application teaches that “[w]hat has been said in relation to the identifier applies to all other examples,” thereby providing specific disclosure of *how* the identifier element can be combined with other embodiments. Ex. 1047 at 38. Indeed, Examiner Chou withdrew a drawing objection for the related '765

Application based on this very teaching. *See* Ex. 2015 at 2. A POSITA would have understood this teaching to encourage combining and substituting the different elements, and especially the identifiers, of the clearly closely-related capsule embodiments. Ex. 2001 at ¶¶68-72. For example, the second German application explains that “[a]ccording to the invention, then, it is provided that this portion capsule has an identifier, which makes it possible to individualize the respective portion capsule.” Ex. 1047 at 31. It then describes various preferred “identifiers.” *See, e.g., id.* at 32-33. In describing Figures 16, 17, and 18, the second German application presents several identifiers, stating that “a form-fitting and/or friction-fitting means and/or a detection means 2.4.2” is located on the outer region of the peripheral region 2.4. Ex. 1047 at 41. While the figures particularly depict a toothed ring “form-fitting means” located on the underside of the flange, the application specifically states that a “detection” means (such as a barcode) could be used in the same location and for the same purpose. The guidance provided demonstrates that the inventors possessed the claimed invention by the time of the second German application and is considerably more than the “boilerplate language” the Court rejected in *D-Three Enterprises, LLC v. SunModo Corp.*, 890 F.3d 1042, 1051 (Fed. Cir. 2018).

The remaining cases Petitioner cites are similarly inapt. Petitioner selectively isolates language from the pharmaceutical case of *Purdue Pharma LP v. Recro Tech.*

LLC, 694 Fed. Appx. 794, 797-98 (Fed. Cir. 2017) to insinuate that it is improper to combine aspects from various embodiments to provide written description support. *See* Pet. at 43. Not so. Indeed, the language that Petitioner omits from their quoted language in the Petition would have shown that the patentee in *Purdue* attempted to combine aspects from “patents incorporated by reference involving *a different drug*” in order to show support for the claimed invention. *Purdue*, 794 Fed. Appx. at 797-98 (emphasis added). And unlike the claim at issue in *FWP IP ApS v. Biogen MA, Inc.*, 749 Fed. Appx. 969, 977 (Fed. Cir. 2018), a POSITA would not be required to “pick and choose from [the] claims without any guidance from the written description” without an “explanation as to why [he] would be able to cobble together selected elements from several different claims.” *FWP*, 749 Fed. Appx. at 978.

Finally, Petitioner’s reliance on the biotechnology *Novozymes* case is also misplaced. *See Novozymes A/S v. DuPont Nutrition Bioscisc. APS*, 723 F.3d 1336, 1346 (Fed. Cir. 2013); *see* Pet. at 42. In *Novozymes*, the parties disputed whether an application provided written description support for a claimed protein variant that included an amino acid substitution at a specific location and had increased thermostability under certain conditions. *Id.* at 1348. While each of the claimed limitations was individually described in the application, the Court rejected the patentee’s argument that it possessed the claimed protein variant as a whole at the time of filing because *Novozymes* would have had to make and test every amino

acid substitution to determine whether it yielded the claimed increased thermostability. Because the patentee provided no evidence that it tested and actually possessed the claimed invention, nor any “‘blaze marks’ that would lead an ordinarily skilled investigator toward such a species among a slew of competing possibilities,” the Court affirmed the finding of lack of written description. *Id.* at 1349.

Here, the second German application’s specific intention and guidance to combine the teachings regarding the identifier with all other examples, demonstrates that the inventor had possession of the claims at the time of the second German application’s filing. *See* Ex. 2001 at ¶¶68-72. To satisfy the written description requirement of § 112, “the test for sufficiency is whether the disclosure of the [earlier] application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of that earlier filing date.” *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1361 (Fed. Cir. 2018) (citations and internal quotation marks omitted). That test is easily met here where the application instructs the reader that “[w]hat has been said in relation to the identifier applies to all other examples;” the disclosure associated with Figures 16-18 plainly describe that a “detection means” can be used as an alternative to the described form-fitting means; there are a but a small number of multiple-dependent claims that show combinations of features from across the scope of examples, which

demonstrates possession of subject matter arising from combinations of embodiments; and there is an absence of any teachings discouraging the combination. Ex. 1047 at 38. A POSITA would have readily understood the inventor to have been in possession of the claimed invention. *See generally* Ex. 2001 at ¶¶68-72.

B. Without the Jarisch Reference Ground 1 Fails

Petitioner's challenge hinges on Jarisch. *See, e.g.*, Pet. at 57, 63, 71-74, 77. Accordingly, Petitioner's ground fails without Jarisch as prior art.

VII. The Petition Fails to Establish a Prima Facie Case for Obviousness

A. Asserted Ground of Rejection: Claims 1-10 Are Allegedly Rendered Obvious Under 35 U.S.C. § 103 by Yoakim in View of Jarisch and Rossi

1. The Petition Cannot Demonstrate That the References Contain a “barcode” Because Petitioner Is Judicially Estopped from Advocating The Term’s Plain and Ordinary Meaning

Independent claims 1 and 7 require a “barcode.” Petitioner and its expert advocate here that the Board apply the plain and ordinary meaning of that term. Pet. at 33; Ex. 1003 at ¶ 141. But Petitioner is judicially estopped from arguing such a construction because it advocated and prevailed in obtaining a different construction of “barcode” before the Central District of California on three related K-fee patents, U.S. Patent Nos. 10,858,176, 10,858,177, and 10,870,531 in the same family as the patent here.

Specifically, Nespresso argued before Judge Wu that the intrinsic record for those patents showed a definition of “barcode” “as excluding a binary system such as the bitcode disclosed in the Jarisch prior art reference.” Ex. 1052 at 9-10. Judge Wu agreed and “construe[d] ‘barcode’ as having its plain and ordinary meaning (*i.e.*, a code having bars of variable width, which includes the lines and gaps), the scope of which is understood by the clear and unequivocal statements K-fee made to the EPO (*i.e.*, the scope of barcode does not include the type of bit code disclosed in Jarisch/D1).” *Id.* at 14.

Petitioner moved for summary judgment of noninfringement based on Judge Wu’s claim construction. *K-fee Sys. v. Nespresso USA, Inc.*, 2022 WL 2826441, at *1 (C.D. Cal. Jun. 17, 2022). In deciding the motion in Petitioner’s favor, Judge Wu further found that “a binary code is not a barcode as claimed” and “barcode,” as construed, excludes codes that encode “0s” and “1s” only. *Id.* at *8. Judge Wu ultimately determined that Nespresso’s Vertuo capsules do not contain a “barcode” under his construction, despite Nespresso’s documents expressly calling the type of code a “barcode.” *K-fee Sys. v. Nespresso USA, Inc.*, 2022 WL 2826441, at *6-9 (C.D. Cal. Jun. 17, 2022).



INNOVATIVE
BREWING SYSTEM

Vertuo technology reads the **barcode** on each capsule, automatically adjusting to the perfect settings, so you can brew your favorite type of coffee, time after time, without fail.

⤴ **How is vertuo different from other coffees, like filter or instant?**

You can precisely prepare your small or large coffee with generous and silky crema, as each Vertuo machines uses **barcode recognition** and a brewing extraction system to create your coffee experience. The **unique barcode** on each capsule adjusts the flow and volume of water, temperature, infusion time and capsule rotation to make the best part of your coffee experience - your perfect coffee, every time.

Nespresso should not now be permitted to advocate a different meaning of “barcode” in order to invalidate K-fee’s patents.

Judicial estoppel applies “where a party assumes a certain position in a legal proceeding, and succeeds in maintaining that position.” *Trustees in Bankruptcy of N. Am. Rubber Thready Co., Inc. v. United States*, 593 F.3d 1346, 1353 (Fed. Cir. 2010). Courts apply three non-exclusive factors in determining whether a party’s inconsistent legal positions constitute judicial estoppel: “(1) whether the party’s later position is clearly inconsistent with its earlier position; (2) whether the party has succeeded in persuading a court to accept that party’s earlier position, so that judicial acceptance of an inconsistent position in a later proceeding would create the

perception that either the first or the second court was misled; and (3) whether the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped.” *Id.* at 1354 (quoting *New Hampshire v. Maine*, 532 U.S. 749, 751 (2001)). “Judicial estoppel applies just as much when one of the tribunals is an administrative agency as it does when both tribunals are courts.” *Id.*

Here, as to factor one, Nespresso’s argument that the Board apply a plain and ordinary meaning of “barcode” or apply K-fee’s claim construction is clearly inconsistent with its earlier position at the district court, which sought to narrow “barcode” from its plain and ordinary meaning to avoid infringement. Factor two is satisfied because Nespresso succeeded in persuading Judge Wu to accept its position, resulting in a final judgment. And the final factor is met because Nespresso would derive an unfair advantage of avoiding infringement based on its construction but having this Board apply a different construction for purposes of determining patent validity. *See TVIIM, LLC v. McAfee, Inc.*, 851 F.3d 1356, 1362 (Fed. Cir. 2017) (“Claim terms must be construed the same way for the purpose of determining invalidity and infringement”). Such a result would be manifestly unfair.

Under a straightforward application of judicial estoppel, Petitioner is estopped from arguing for a construction different than the construction it has previously

successfully advanced in a prior judicial proceeding. Accordingly, based on Nespresso's prior position, its Petition must be denied.

Petitioner argues that Yoakim in combination with Jarisch disclose “a barcode on the bottom side of the flange” (claim 1) and “an identifier provided on the bottom side of the flange, the identifier being a barcode” (claim 7). This argument fails for at least two reasons. First, the Petition addresses only the plain and ordinary meaning of “barcode.” *See* Pet. at 33; Ex. 1003 at ¶ 141. It fails to show that Yoakim satisfies Judge Wu's construction—the only construction that Petitioner can advance. The Petition relies solely on Yoakim's use of the word “barcode.” But were that enough, then summary judgment of noninfringement should have been denied. Importantly, Yoakim does not disclose a “machine readable code consisting of parallel bars of different widths that encode more than only two unique binary characters such as 0 or 1.” Petitioner pursued this construction because it was narrow, and because Petitioner believed that it would disqualify codes that might appear to be or are otherwise described as a “barcode.” Petitioner specifically advocated for this narrow construction as an *alternative* to the plain and ordinary meaning proposed by Patent Owner. As a result, because Yoakim recites only the term “barcode,” without any of the additional detail that Petitioner and the District Court believe is required by this term, the Yoakim reference fails to recite this term and Petitioner's proposed combination fails.

Second, the fact that Petitioner combines Yoakim with Jarisch *proves* that a POSITA would not have arrived at a capsule with Petitioner’s narrowly construed “barcode” under the flange. Petitioner argued that the code disclosed in Jarisch was *not* a barcode. But a POSITA having only the bare disclosure of a “barcode” in Yoakim would be equally if not much more likely to employ the code of Jarisch under the flange. If that were the case, then the POSITA would arrive at a combination that Petitioner argues does not meet the claim limitation. For both of these reasons, Petitioner does not present a *prima facie* case of unpatentability and institution should be denied.

2. The Art Fails to Disclose or Render Obvious a determination that the single-serve capsule belongs to a group of single serve capsules operable for use with the beverage machine

Claim [7.p] requires that “the beverage machine, by reading or detecting the identifier with the sensor/detector, is configured to determine if the single-serve capsule belongs to a group of single serve capsules operable for use with the beverage machine.” Neither of the references that Petitioner relies on disclose this limitation.

The Petitioner does not cite any disclosure in Yoakim with respect to this limitation. Instead, Petitioner relies solely on Rossi, pointing only to used or unused capsules. The limitation of the claim, however, requires that the determination is of a group of capsules that is “operable for use.” The only group that Petitioner

directly identifies are used capsules that are *not* operable for use. Petitioner's argument high-lights the insufficiency of Rossi, which is directed to a completely different application than that of the '430 Patent. Rossi discloses an identification element that is used to select the appropriate brewing conditions. Rossi *also* discloses a separate validation element. But the validation element is used to ensure that the load element is used a single time, and only serves to unlock the machine so that it can be used at all. There is simply no disclosure in Rossi of a determination if the single-serve capsule belongs to a group of single serve capsules operable for use with the beverage machine.

3. The Art Fails to Disclose or Render Obvious a Pump Control Limitation

Claims [1.o] requires a “pump [] controlled to push the water into the single-serve capsule only upon a determination that the read barcode agrees with a stored reference.” Claim [7.p] requires that, after “reading or detecting the identifier with the sensor/detector,” “only if the beverage machine determines that the single-serve capsule belongs to the group of single serve capsules operable for use with the beverage machine is the pump controlled to push the water into the single-serve capsule.” The claims therefore require a pump controlled to supply water into the single-serve capsule only upon (1) detection of a barcode or identifier, and (2) determination by the beverage machine that the single-serve capsule is operable for

use (or the detected barcode agrees with a stored reference). Neither of the references that Petitioner relies on disclose this limitation.

Petitioner first relies on Yoakim (without evidentiary support), arguing that Yoakim discloses a pump controlled to push water into the single-serve capsule, and alleging that Yoakim also discloses that the pump is controlled based on the detection of barcode identification means by the sensor/detector. Petitioner fails, however, 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.

Petitioner then concedes that Yoakim falls short, arguing (again, without supporting evidence) that Rossi discloses the complete limitation – controlling a pump to supply water upon both detection of the identifier and a determination by the machine that the barcode agrees with a stored reference. Of course, both the Rossi and Yoakim references were before the Examiner during prosecution, and therefore the Examiner previously found this limitation to be missing from the Rossi and Yoakim references. Like Yoakim, Rossi discloses an identification element that is used to select the appropriate brewing conditions. Rossi *also* discloses a validation element. Rossi confirms that a separate validation element, that has nothing to do with the operation of the machine, controls whether the machine will be unlocked. Rossi states, “[t]he edible-product making machine is only allowed to take further steps if it in the first step also recognizes on the load element a validation element to

be validated. In practice, this may take the form of unlocking the machine when both the identification element and the unvalidated validation element are recognized.” Ex. 1041 at 9. But 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. Instead, the validation element is used to ensure that the load element is used a single time, and only serves to unlock the machine so that it can be used at all. Id. at 7, 9. Indeed, Petitioner overlooks its obligation to cite a disclosure of a pump in Rossi, and states without evidentiary support that “Rossi discloses that both the identifying element and validation element can be a barcode.” Pet. at 72. The Examiner was correct, and Petitioner has not fulfilled its burden to show where that feature is disclosed in Rossi.

Accordingly, Petitioner fails to cite *any* references that disclose the pump features recited in claims 1 and 4-6.

4. A Person of Ordinary Skill in the Art Would Not Have Been Motivated to Combine Rossi with Yoakim and Jarisch

Petitioner fails to adequately explain why a POSITA would be motivated to add the separate validation element of Rossi to the centrifugal brewing systems of Yoakim and Jarisch. This is particularly true in light of the Petitioner’s failure to take into account the nature of the validation element disclosed in Rossi, which is (1) separate from the identification element that is used to control the operation of the machine, (2) used to determine whether a load element has already been used,

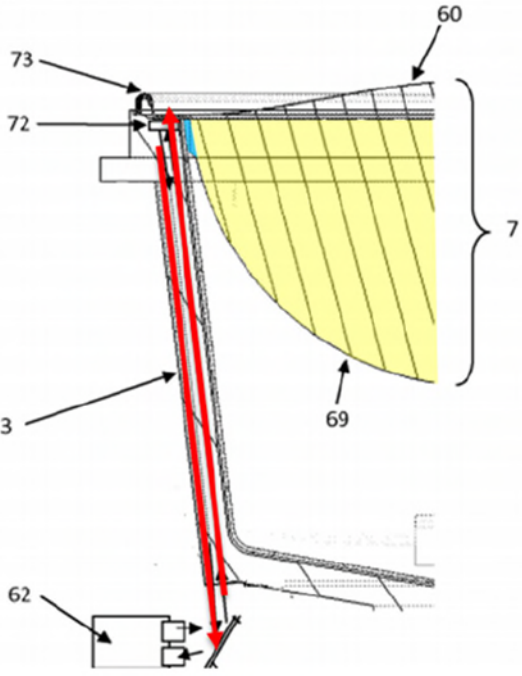
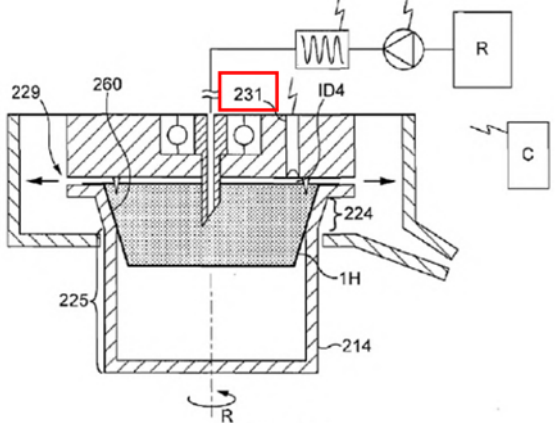
(3) preferably takes the form of the mechanical destruction of the validation element, (4) is described as advantageous if the validation is visible to the user, such that it is clear that the load element is validated and cannot be reused, (5) is generally described as taking place outside of the machine, and (6) is used for purposes of “unlocking” the machine. The Petition is silent in assessing how a skilled person would consider Rossi as a whole, and how Rossi could be reconciled with the systems of Yoakim and Jarisch.

Moreover, a POSITA would not have combined the teachings of Yoakim and Jarisch, as Petitioner suggests. Petitioner is the owner of Jarisch. As noted by Petitioner, Yoakim and Jarisch have a common owner, Societe des Produits Nestle S.A., an affiliate of Petitioner, and a common inventor, Alexandre Perentes. Pet. at 47. During prosecution of a similar Jarisch reference (U.S. Patent No. 10,800,600), a parent application to Yoakim was cited by the Examiner (WO 2008/148601, “Yoakim ’601”). In attempting to overcome a rejection based on Yoakim ’601, Petitioner disparaged the ability of Yoakim ’601 to be combined with other references describing single-serve coffee capsules, stating that “the skilled artisan would not have combined these cited references [including Yoakim ’601] to arrive at a capsule comprising a code arranged on a bottom of the flange-like rim.” IPR2021-01222, Paper 6, EX2002-1 at 393.

Petitioner continued, stating that the other references do not “provide any reason or motivation for the skilled artisan to modify *Yoakim* [’601] alone or in combination with *Boyd* (even if they are combinable) to include the claimed code on bottom of the flange-like rim of a capsule as required by independent claim 1.” *Id.* at 395-96. Patent Owner acknowledges that *Yoakim* (Ex. 1004) is a continuation-in-part of the *Yoakim* ’601 reference and that the references have different disclosures. But the fact remains that when prosecuting its own application, Petitioner argued that different references describing single-serve coffee capsules were non-combinable. Petitioner should not be permitted to argue the opposite now.

Further, Petitioner has not demonstrated how (or why) *Yoakim* and *Jarisch* could be combined without a substantial reconstruction and redesign of elements. Specifically, as Petitioner explains, “[t]he *Jarisch* optical reader configuration is depicted below [in the annotated Figure 5] in order to read the code on the capsule (yellow) with the light path (red) shown from detector (62) to capsule rim (73).” Pet. at 48-49. However, the “sensor/detector (231) [] enabled to identify and read a barcode” as described in *Yoakim* is positioned to read a code on the opposite side of the capsule. Pet. at 58; *see also* Ex. 1004 at [0525], Figs. 61, 62.

Table 4 – Comparison of Sensor Placement in Jarisch and Yoakim

Jarisch	Yoakim
 Pet. at 49 (citing Ex. 1005, Fig. 4).	 FIG. 61 Ex. 1004 at Fig. 61.

Because the combination of Jarisch and Yoakim would have required a significant redesign of the elements, including in moving the location of the sensor or detector (ostensibly directly into a flow path of the brewed coffee), a POSITA would not have been motivated to combine the teachings of the two references. *See, e.g., In re Ratti*, 46 C.C.P.A. 976, 981 (CCPA 1959) (rejecting prior art combination because the combination “would require a substantial reconstruction and redesign of the elements shown [in the prior art] as well as a change in the basic principles under which [the prior art] construction was designed to operate”).

Finally, the “bitcode” described in the Jarisch reference teaches away from Petitioner’s proposed combination. Yoakim uses the bare term “barcode,” without providing any information as to what that code would actually be, and certainly does not provide the narrow strictures offered in Petitioner’s construction for that term. A POSITA would therefore be left with the “bit code” described in Jarisch, which Petitioner has clearly and definitively argued to the District Court is not a “barcode.” As a result, a POSITA would not have been motivated to combine the Yoakim and Jarisch references. Even if a POSITA was so motivated, the outcome would be the employment of a “bit code,” which Petitioner previously argued does not meet the “barcode” limitation of the claim.

5. A Person of Ordinary Skill in the Art Would Not Have Been Motivated to Further Combine Yoakim, Jarisch, and Rossi with Castellani

Independent of its failure to cite any prior art disclosure of the recited pump feature, Petitioner also fails to demonstrate motivation to combine the prior art teachings. As stated above, there is no motivation to combine Yoakim, Jarisch, Rossi and Castellani, and Petitioner’s conclusory statements regarding motivation to combine are insufficient. Pet. at 73-76; Ex. 1003 at ¶¶293-300.

VIII. Institution Should Be Denied Under 35 U.S.C. § 314(a)

The parties have been embroiled in disputes involving substantive claims for infringement for both the ’430 Patent and the 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.

Date: June 16, 2023

Respectfully submitted,

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CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24, the undersigned hereby certifies that the word count for the foregoing Patent Owner Preliminary Response totals 13,972 words, which is less than the 14,000 allowed under 37 CFR. § 42.24(a)(1)(i), (b)(1).

Date: June 16, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.8 and 42.6(e), the undersigned hereby certifies that the foregoing Patent Owner's Preliminary Response and its respective exhibits was served on counsel of record for the Petitioner by filing this document through PTAB E2E and by sending this document via electronic mail to the following addresses:

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