

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMPHENOL CORP.,
Petitioner,

v.

PPC BROADBAND, INC.,
Patent Owner.

Case IPR2023-01363
Patent No. 9,008,483 B2

**PATENT OWNER
PRELIMINARY RESPONSE**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE '483 PATENT	4
III.	CLAIM CONSTRUCTION.....	9
IV.	THE CHALLENGED CLAIMS ARE NOT OBVIOUS	9
A.	Holmberg Does Not Disclose Or Suggest A Storage Panel Positioned To Store Three Types Of Cables, Including Feed Break-Out Cables, Which Are Different From Drop Cables And Distribution Cables.....	10
B.	Replacing Holmberg's Fixed Splice Tray With A Rotational Splice Tray Would Not Only Be Antithetical To The Teachings Of Both Homberg and Battey, It Would Render Petitioner's Proposed Prior Art Combination Inoperable For Its Intended Purposes.....	26
V.	THE BOARD SHOULD DENY INSTITUTION UNDER 35 U.S.C. §325(D).....	43
A.	Petitioner's Application Of The <i>Advanced Bionics</i> Framework Was Wrong And Incomplete.....	45
1.	The Prosecution Of The '483 Patent (Including The PCT Application)	46
B.	Part One Of The <i>Advanced Bionics</i> Framework	50
1.	Becton, Dickinson Factors (a) And (b): The Prior Art Cited By Petitioner Is The Same Or Substantially The Same Prior Art Considered By The Examiner.	50
2.	Becton, Dickinson Factor (d): Substantially The Same Arguments Were Previously Considered By The Examiner.	56
C.	Part Two Of The <i>Advanced Bionics</i> Framework	57
1.	Becton, Dickinson Factor (c): Holmberg And Battey Were Extensively Evaluated During Examination.	57
2.	Becton, Dickinson Factors (e) And (f): Petitioner Failed To Sufficiently Point Out How the Examiner Erred Or	

Why The Evidence And Facts Of The Petition Warrant Reconsideration.....	58
--	----

TABLE OF AUTHORITIES

CASES

<i>Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH</i> , IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential).....	43, 44
<i>Apple Inc. v. Samsung Elecs. Co.</i> , 839 F.3d 1034 (Fed. Cir. 2016)	36
<i>Arctic Cat Inc. v. Polaris Indus.</i> , 795 Fed. Appx. 827 (Fed. Cir. 2019)	41, 43
<i>Becton, Dickinson & Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph).....	44
<i>Becton, Dickinson & Co. v. Tyco Healthcare Group, LP</i> , 616 F.3d 1249 (Fed. Cir. 2010)	1, 23
<i>Chongqing HKC Optoelectronics Co., Ltd. v. 138 East LCD Advancements Limited</i> , IPR 2023-00476, Paper 9 (PTAB Aug. 28, 2023)	25
<i>Comcast Cable Communs., LLC v. Promptu Sys. Corp.</i> , 838 Fed. Appx. 551, 554 (Fed. Cir. 2021)	23
<i>DeCurtis LLC v. Carnival Corp.</i> , IPR2021-00784, Paper 11 (PTAB Oct. 8, 2021).....	24
<i>Gaus v. Conair Corp.</i> , 363 F.3d 1284 (Fed. Cir. 2004)	2, 23
<i>HTC Corp. v. Cellular Communs. Equip., LLC</i> , 701 Fed. Appx. 978 (Fed. Cir. 2017)	23
<i>Husky Injection Molding Sys., Ltd. v. Platipak Packaging, Inc.</i> , IPR2020-00437, Paper 23 (PTAB July 29, 2020).....	57
<i>In re Fritch</i> , 972 F.2d 1260, (Fed. Cir. 1992)	37
<i>In re Gordon</i> , 733 F.2d 900 (Fed. Cir. 1984)	37
<i>In re Ratti</i> , 270 F.2d 810 (CCPA 1959).....	37

<i>Ivantis, Inc. v. Sight Sciences, Inc.</i> , IPR2022-01540, Paper 14 (PTAB Mar. 22, 2023).....	57, 58
<i>K/S HIMPP v. Hear-Wear Techs., LLC</i> , 751 F.3d 1362 (Fed. Cir. 2014).....	22
<i>Kingston Tech. Co., Inc. v. North Start Innovations, Inc.</i> , IPR2018-01784, Paper 32 (PTAB Feb. 26, 2020)	23
<i>Par Pharm., Inc. v. TWi Pharms., Inc.</i> , 773 F.3d 1186 (Fed. Cir. 2014).....	26
<i>Polaris Indus. v. Arctic Cat, Inc.</i> , 882 F.3d 1056 (Fed. Cir. 2018).....	35, 36
<i>TQ Delta, LLC v. Cisco Sys.</i> , 942 F.3d 1352 (Fed. Cir. 2019).....	21, 25
<i>Winner Int'l Royalty Corp. v. Wang</i> , 202 F.3d 1340 (Fed. Cir. 2000).....	41
<i>Xerox Corp. v. Bytemark, Inc.</i> , IPR2022-00624, Paper 9 (Aug. 24, 2022) (precedential)	21

STATUTES

35 U.S.C. § 325(d)	passim
--------------------------	--------

RULES

37 C.F.R. § 42.24	1
37 C.F.R. § 42.6(e).....	1
37 C.F.R. § 42.65(a).....	22

EXHIBIT LIST

EXHIBIT	DESCRIPTION
EX-1001	U.S. Patent No. 9,008,483
EX-1002	Prosecution History for the '483 Patent
EX-1003	Declaration of Dr. Sayfe Kiaei
EX-1004	U.S. Patent Application Publication No. 2009/0202214 to Holmberg et al. ("Holmberg")
EX-1005	U.S. Patent Application Publication No. 2008/0112681 to Battey et al. ("Battey")
EX-1006	U.S. Patent No. 6,721,484 to Blankenship et al. ("Blankenship")
EX-1007	U.S. Patent No. 8,965,168 to Cowen et al. ("Cowen")
EX-2001	Declaration of Dr. Charles A. Eldering in Support of Patent Owner Preliminary Response ("Eldering")
EX-2002	U.S. Patent Application Publication No. 2003/103750 A1 ("Laporte")
EX-2003	U.S. Patent Application Publication No. 2004/062508 A1 ("Blankenship Publication")

I. INTRODUCTION

Patent Owner respectfully submits this Patent Owner Preliminary Response to the Petition for *Inter Partes* Review (“IPR”) of claims 1, 2, and 10-13 (“Challenged Claims”) of U.S. Patent No. 9,008,483 (“’483 Patent”) (EX-1001). The Petition should be denied for several reasons.

First, Petitioner’s proposed prior art combinations fail to disclose or suggest the claimed drop interface box hardware to store **three** different types of fiber optic cables: (a) a drop cable, (b) distribution cables, **and (c) feed break-out cables**, where the feed break-out cables are **coupleable** to both the drop cable and the distribution cables. Petitioner’s proposed prior art combinations only provide storage of **two** different types of optical cables: (a) a drop cable and (b) distribution cables (*i.e.*, not the feed break-out cables). To try to overcome this deficiency, Petitioner and its expert argued without any evidentiary support that the prior art’s storage of a **single drop cable** allegedly disclosed storage of not only the drop cable, but also the feed break-out cables. But Petitioner’s reliance on the prior art’s storage of a single drop cable to allegedly disclose storage of both the drop cable and the feed break-out cables runs afoul of the Federal Circuit mandate that “[w]here a claim lists elements separately, ‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention.” *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (quoting *Gaus v.*

Conair Corp., 363 F.3d 1284, 1288 (Fed. Cir. 2004)). This is especially true here where the claimed storage is of a feed break-out cable that is “coupleable” with the drop cable and therefore cannot be part of the drop cable. Accordingly, Petitioner’s made-up theories cannot render obvious any of the Challenged Claims, and should be rejected.

Second, Petitioner also invites the Board to commit factual and legal errors by improperly relying upon the Challenged Claims themselves as a roadmap in attempting to support conclusory, unsupported, and erroneous prior art modification theories. For example, Petitioner theorizes that it would have been obvious to replace a ***fixedly mounted*** prior art splice tray with a ***rotationally hinged*** splice tray. But Petitioner’s hindsight-driven modification theory would not only alter the principle of operation of the prior art fixedly mounted splice tray, but would also render it inoperable for its intended purpose. Rather than teach Petitioner’s hindsight-driven proposed modification, the prior art taught that such storage mechanisms for fiber optic cables and splices were specifically designed to be fixed to avoid damaging such cables and splices. Moreover, a person of ordinary skill in the art would readily recognize that replacing the prior art fixed splice tray with a rotational splice tray would cause undue stress to be exerted on different portions of such cables and splices when they move relative to each other, which in turn would damage such cables and splices. Accordingly, Petitioner’s made-up prior art

modification theories, including its antithetical suggestion to rotate a prior art fixed splice tray that was designed to not rotate so as to avoid damaging such cable and splices, also cannot render obvious any of the Challenged Claims, and similarly should be rejected.

Finally, the Board should deny institution under 35 U.S.C. § 325(d) because the Examiner previously considered the same or substantially the same references and arguments used in the Petition, and Petitioner did not even try to demonstrate any material error of the Examiner that warrants reconsideration. For example, while Petitioner claimed that part one of the *Advanced Bionics* framework was not satisfied because the Battey prior art reference relied upon in all of the grounds was not cited during prosecution, it conveniently ignored the fact that another, cumulative prior art patent (“Laporte”) by the same inventor was extensively discussed in a PCT search report and written opinion, and considered by the Examiner. As for part two of the *Advanced Bionics* framework, since Petitioner did not even attempt to meet its burden to show that the Examiner materially erred, the Board should deny institution.

II. THE '483 PATENT

The '483 Patent discloses a drop interface box ("DIB") for "connection of an optical fiber feed or 'drop' cable from an optical fiber service provider to a distribution point at a residence, dwelling or other building, such as a multi-unit dwelling." '483 Patent 1:15-20, Title ("Optical Fiber Cable Drop Interface Box"), FIGS. 1-2-2; Eldering ¶27.¹

As explained in the Background, the problem addressed by the '483 Patent was the *storage of "excess optical fiber cable length" of three different fiber optic cables*: (a) a drop cable, (b) distribution cables, and (c) individual feed break-out cables. '483 Patent 1:50-59 ("*Storage of the excess cable length* can be problematic, as can organization of the *drop optical fiber cable, the multiple individual feed optical fiber cables, and the multiple individual distribution optical fiber cables* which are connected to the individual living or workplace units."); Pet. 3, 11-12 ("[I]t is an important feature of the '483 Patent that its DIB 'provides organized *drop, feed and distribution fiber* cable storage') (citing '483 Patent 2:6-10). In fact, the terms "*store*" and "*storage*" for excess lengths of fiber optic cables appear well over one hundred times in the '483 Patent. Accordingly, the patented

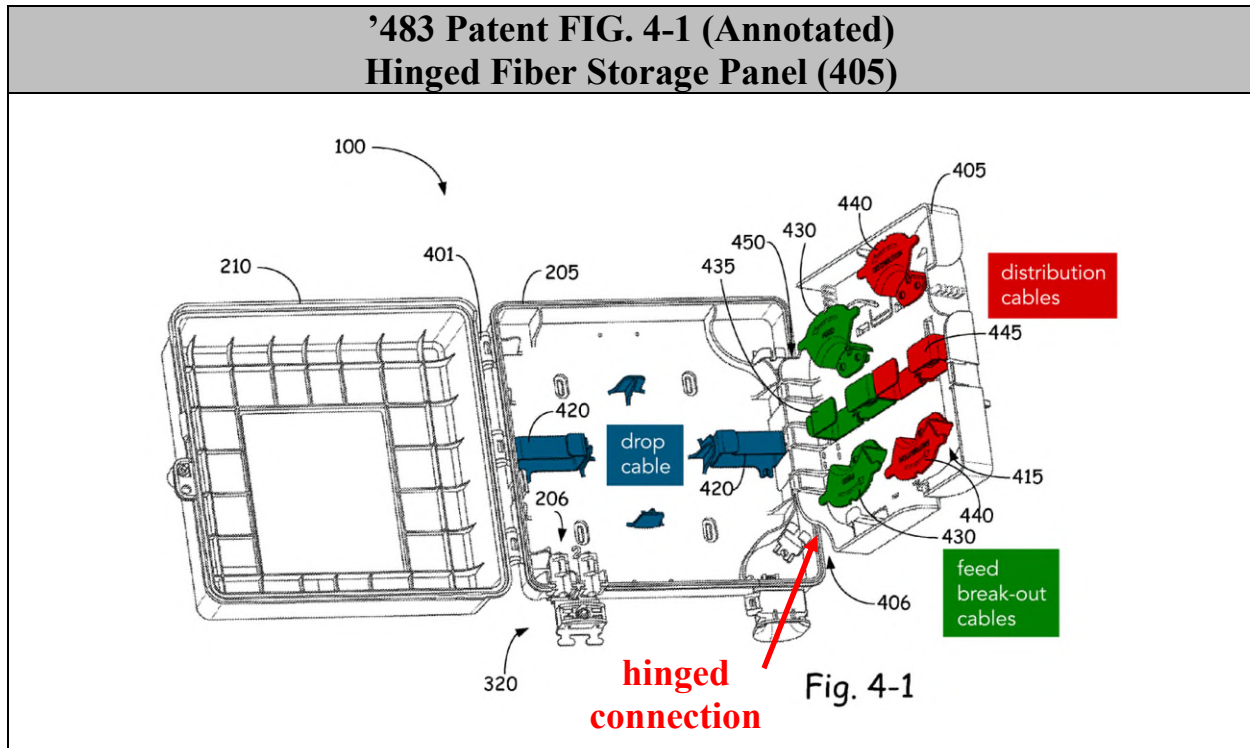
¹ References to "Eldering" are to the Declaration of Dr. Charles A. Eldering in Support of Patent Owner Preliminary Response (EX-2001).

DIB of the '483 Patent “provides organized *drop, feed and distribution fiber cable storage*” ’483 Patent Abstract, 2:6-10, 3:9-12 (“The disclosed DIB includes integrated *slack storage* compartments which provide ample room to *store excess cable length* while maintaining separation of hardened *drop, feeder breakout, and distribution cables.*”);² Eldering ¶¶28-29.

The DIB 100 disclosed in the '483 Patent includes (i) a hinged base unit 205 for storing the excess or “slack” drop cable, where the base unit 205 has a hinged connection 401 to the cover 210, and (ii) a *hinged fiber storage panel 405* for storing the excess or “slack” feed break-out cables and distribution cables, where the fiber storage panel 405 has a hinged connection 406 to an opposing side of the base unit 205. ’483 Patent 4:49-53, 2:33-35 (“a base, cover and *hinged* fiber storage panel”), 2:36-38 (“*drop, feed and distribution cable* routing and storage”), 2:39-40 (“*drop, feed and distribution cable* routed and stored”), 2:42-44 (“feed and distribution cable routing to a front side of the fiber storage panel”), 2:48-51 (“feed and distribution cable routing to the front side of the fiber storage panel”), 3:35-39 (“a base unit 205 and a door or cover 210 which has a hinged connection to the base unit”), 6:19-21 (“*drop cable 110, feed cables 550 and distribution cables 120* routed and stored”), FIGS. 2-1, 2-2, 4-1-5-4, 6-1, 6-4. The “hinged fiber storage panel

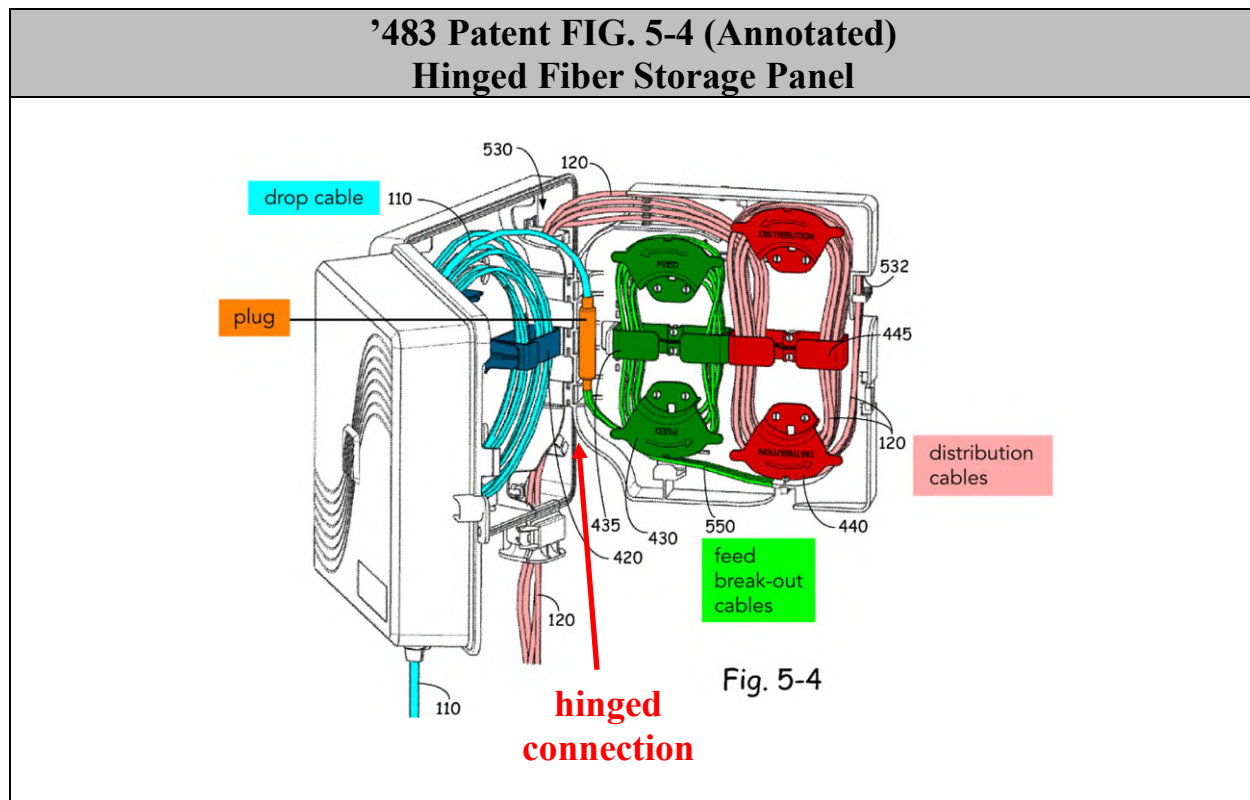
² Unless otherwise noted, all emphasis is added.

[405] includes spools, cable clips and integrated cable channels that maintain cable radius during transitions of cables from a storage side or plane of the panel to a connector side or plane of the panel.” ’483 Patent Abstract, 2:10-14., FIG. 4-1; Eldering ¶¶30-31.

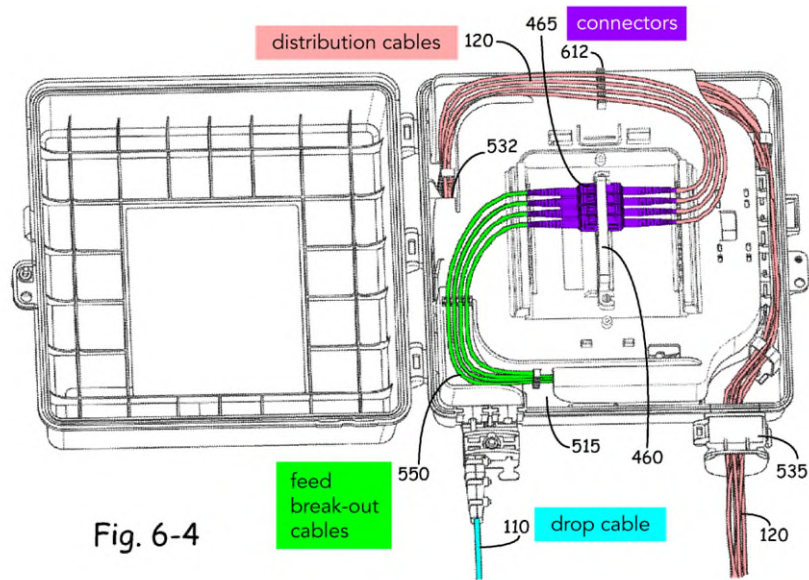


As shown in FIG. 5-4 below, “drop cable 110 is split into feeder breakout cables 550 ... and converted into multiple distribution cables 120 which are connected in or to the individual units or locations 125 of premises 130. ’483 Patent 3:27-31, FIG. 5-4. More specifically, “[o]n the rear side 415 of the hinged fiber storage panel 405, there are two sets of spools 430 and 440 and two sets of corresponding storage clips 435 and 445. Spools 430 and storage clips 435 store feed cables 550 (shown in FIG. 5-4). Spools 440 and clips 445 store distribution

cables 120.” ’483 Patent 4:62-66, 5:30-43, FIGS. 5-2 & 5-4; Eldering ¶¶32-33.



As can also be seen in FIG. 5-4 above, “[a] break-out or furcation *plug 450 positioned near the upper end of hinged connection 406* divides the drop feed cable 110 into multiple (e.g., typically four) individual feed cables 550.” ’483 Patent 4:66-5:2; FIGS. 4-1, 5-4. And “[o]n the front side 410 of hinged fiber storage panel 405 is an adapter bracket 460 which holds one or more connectors or adapters 465, such as four-to-eight port adapters. Adapters 465 convert between the feed cables 550 and the distribution cables 120.” ’483 Patent 5:3-7, FIGS. 4-2, 6-4 (annotated); Eldering ¶34.



Accordingly, the feed break-out cables 550 are coupled to (a) the drop cable 110 through a “break-out or furcation plug 450 positioned near the upper end of hinged connection 406” on the front side of the hinged fiber storage panel, and are coupled to (b) the distribution cables 120 through the connectors or adapters 465 on the rear side of the hinged fiber storage panel 405. ’483 Patent 4:66-5:7; FIGS. 4-1, 4-2, 6-4; Eldering ¶35.

Consistent with this disclosure, independent claim 1 of the ’483 Patent requires “a *fiber storage panel having a hinged connection to the base unit* on a side opposite the hinged connection of the cover to the base unit” (claim 1(c)) and “having first spools positioned *to store a plurality of feed break-out cables coupleable to the drop cable*, ... [and] further having second spools *positioned to store a plurality of distribution cables coupleable to the plurality of feed break-out cables*” (claim 1(d)). ’483 Patent 7:36-46; Eldering ¶36. As will be explained, none

of Petitioner’s grounds are sufficient to render obvious at least these claim elements.

III. CLAIM CONSTRUCTION

In its Petition, Petitioner proposed two alternative claim constructions of the term “drop cable.” Pet. 9-16. First, Petitioner proposed a narrow construction to require that “the drop cable retain its external jacket as it is routed internally” for its proposed Grounds 3-5. Pet. 10-13. And second, Petitioner proposed to construe it to allow for “the external jacket to be removed as the drop cable enters the DIB and the fibers routed inside the box without the external jacket” for proposed Grounds 1 and 2. Pet. 10-11, 13-16. Although Patent owner disagrees with Petitioner’s first proposed claim construction, the Board need not resolve this claim construction dispute to deny institution because Petitioner’s proposed Grounds 1-5 are all insufficient under either construction.

IV. THE CHALLENGED CLAIMS ARE NOT OBVIOUS

Petitioner has challenged independent claim 1 of the ’483 Patent, the only independent claim in the Challenged Claims, based on Ground 1 (combination of Holmberg and Battey) and Ground 3 (combination of Holmberg, Battey, and Blankenship). On their face, neither ground is sufficient to render obvious at least the following elements of independent claim 1:

Claim Element 1(d) — “the *fiber storage panel* having first spools *positioned to store a plurality of feed break-out cables coupleable to the drop cable*, the fiber storage panel further having second spools positioned *to store a plurality of distribution cables coupleable to the*

plurality of feed break-out cables;” and

Claim Element 1(c) — “*a fiber storage panel having a hinged connection to the base unit on a side opposite the hinged connection of the cover to the base unit* such that the fiber storage panel is moveable relative to the base unit and configured to be stored between the base unit and the cover”

’483 Patent 7:36-46; Eldering ¶¶37-38.

A. Holmberg Does Not Disclose Or Suggest A Storage Panel Positioned To Store Three Types Of Cables, Including Feed Break-Out Cables, Which Are Different From Drop Cables And Distribution Cables.

As explained above, the DIB 100 disclosed in the ’483 Patent includes a hinged fiber storage panel 405 for storing the excess or “slack” *feed break-out cables 550* and the distribution cables 120, where the *feed break-out cables are coupleable to the drop cable 110* through the break-out or furcation plug 450 and *coupleable to the distribution cables 120* through the connectors 465. ’483 Patent 5:3-7, 2:6-14, 3:9-12, 3:27-31, 4:49-53, 4:62-5:7, 5:30-43, 6:19-21, FIGS. 4-2, 5-4 (annotated), 6-4 (annotated); Eldering ¶¶28-35.

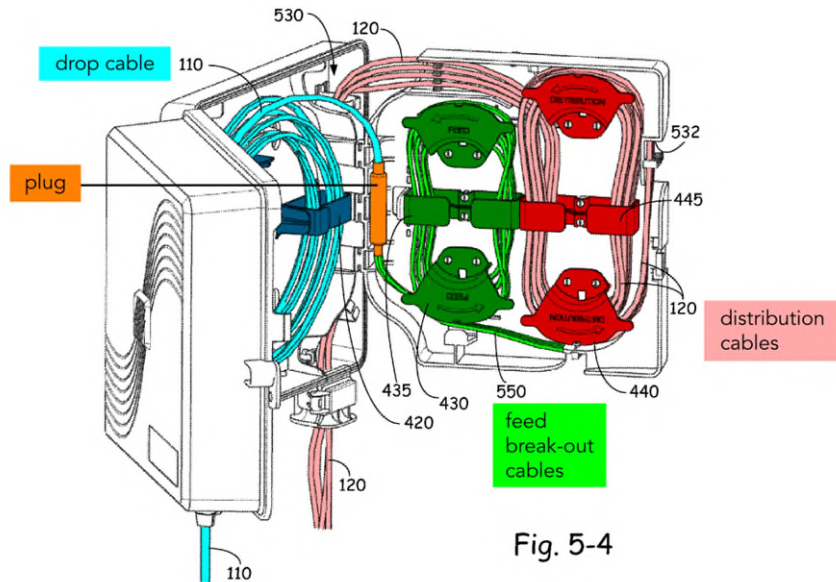


Fig. 5-4

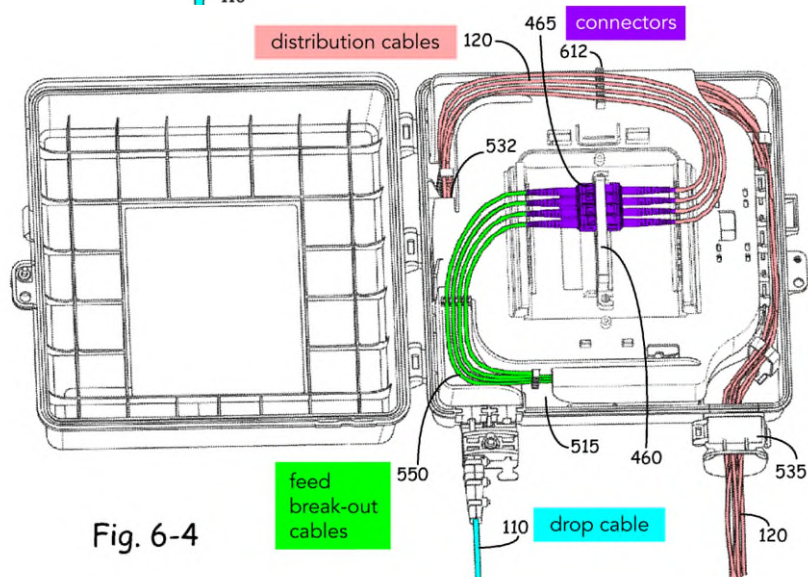


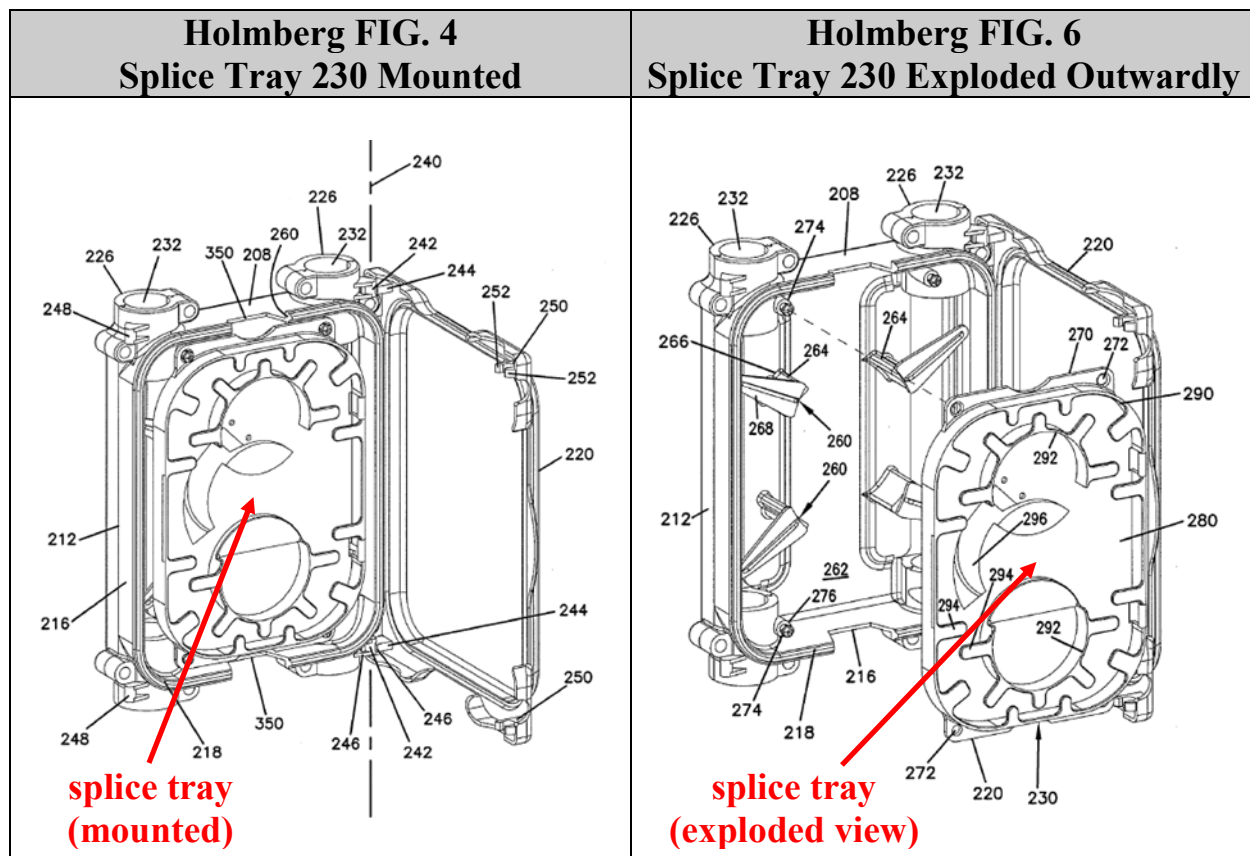
Fig. 6-4

Consistent with this disclosure, independent claim 1 of the '483 Patent requires “a *fiber storage panel* having first spools positioned *to store a plurality of feed break-out cables coupleable to the drop cable*, ...[and] further having second spools *positioned to store a plurality of distribution cables coupleable to the plurality of feed break-out cables*” (claim 1(d)). '483 Patent 7:40-46.

For both Grounds 1 and 3, Petitioner relied upon a made-up, conclusory, and

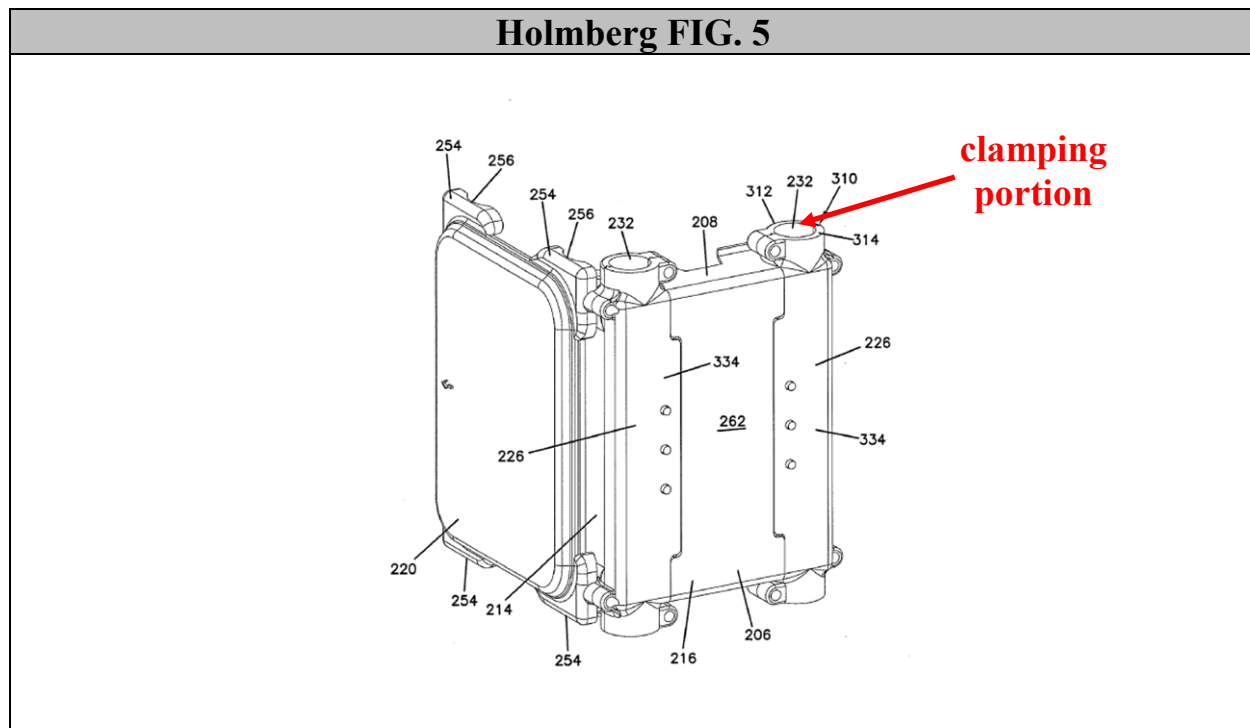
erroneous theory that, since Holmberg disclosed a splice tray 230 that stores the ***“terminated fibers” of the drop cable***, these “terminated fibers” of the drop cable somehow constituted the claimed ***“feed break-out”*** cables. Pet. 44-59, 81. But in reality, Holmberg does not disclose storage of any such feed break-out cables, in addition to storage of the drop cable and the distribution cables. As a result, Holmberg’s splice tray 230 does not and cannot disclose or suggest any spools positioned to store a plurality of the ***feed break-out*** cables, let alone such a ***feed break-out*** cable being ***coupleable*** to either the drop cable or the distribution cables. Instead, Holmberg’s splice tray 230 simply ***stores the terminated fibers of the drop cable***, which are directly spliced to the distribution cables without the use or storage of any of the ***feed break-out*** cables. Eldering ¶39.

Holmberg is directed to a “wall box for use in a fiber optic network.” Holmberg ¶[0008]. In the embodiment relied upon by Petitioner (FIGS. 1-12), the “wall box 200 [] includes a splice tray 230 that mounts in the interior of the enclosure 202 and is accessible through the open front side 218 of the main body 216 when the front cover 220 is open.” Holmberg ¶[0035]. FIG. 4 shows the wall box 200 with the front door open showing the splice tray 230 mounted in the enclosure 202, while FIG. 6 shows the splice tray 230 exploded outwardly from the interior of the wall box. Eldering ¶40.



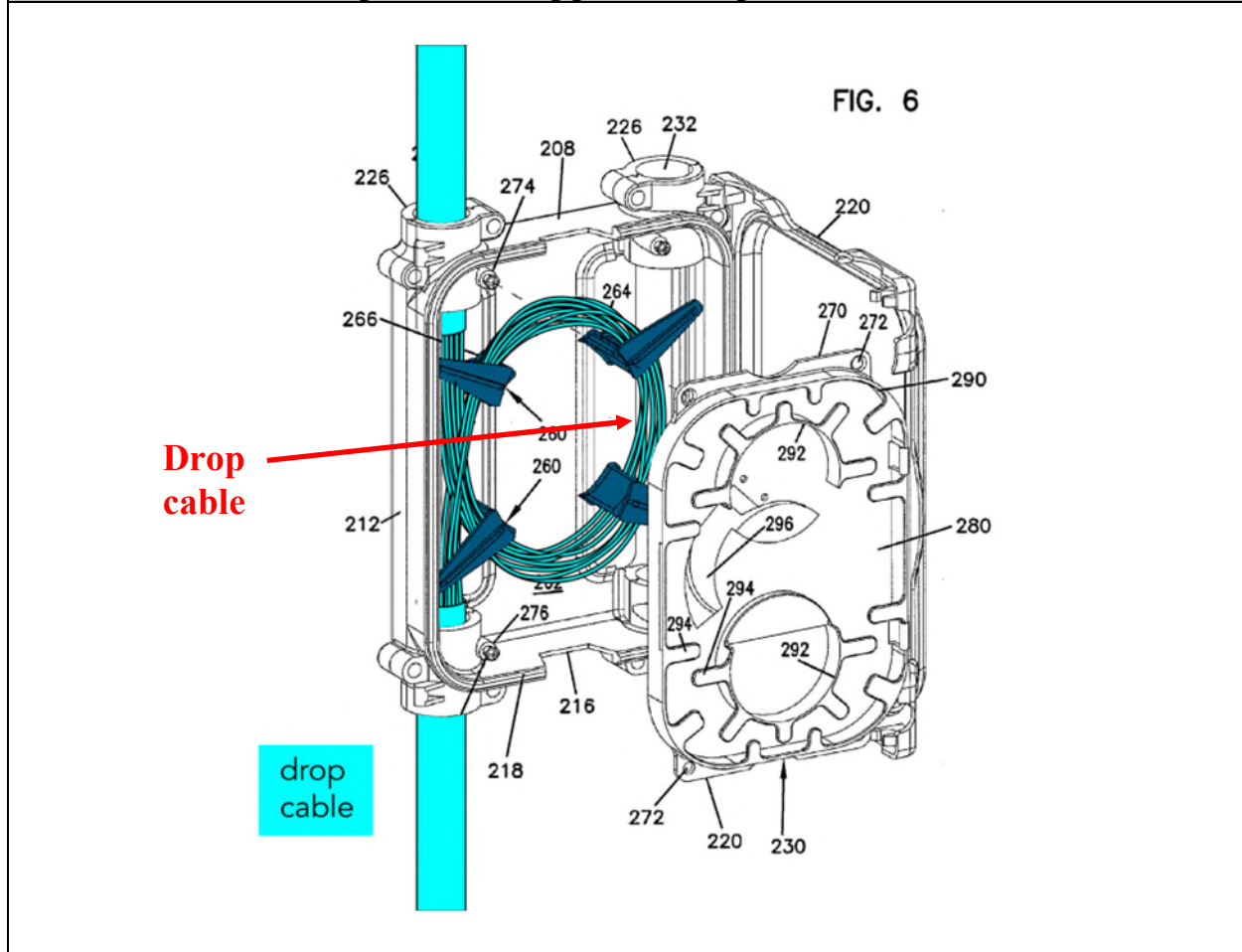
Starting with the drop cable from an optical fiber service provider ('483 Patent 1:15-18), Holmberg discloses that, prior to insertion into the wall box 200, “the cable is initially prepared by *stripping away the outer jacket of the [drop] cable* for a desired length at the mid-span location. In one embodiment, about 4 feet of the outer jacket can be stripped.” Holmberg ¶[0052]. “With one end of the stripped region [of the drop cable] located adjacent to one of the clamping portions 310 and the other end of the stripped region positioned adjacent to the corresponding clamping portion 310 [j]acketed portions of the cable located adjacent to the stripped portion are preferably inserted within the clamping portions 310.” Holmberg ¶[0052], FIGS. 5,

6; Eldering ¶¶41-42.



As shown in the annotated figures below—and as Petitioner agreed—“[t]he stripped portion of the [drop] cable can then be spooled around the bend radius limiters 264 provided within the main body 216.” Holmberg ¶¶[0052], [0041], FIG. 6; Pet. 31 (“Holmberg further teaches main body 216 includes cable management members 260 spaced apart and that are configured to retain a loop of stripped cable (*‘drop cable’*) wrapped around said cable management members 260 (*‘drop cable* retaining mechanisms’)); Eldering ¶43.

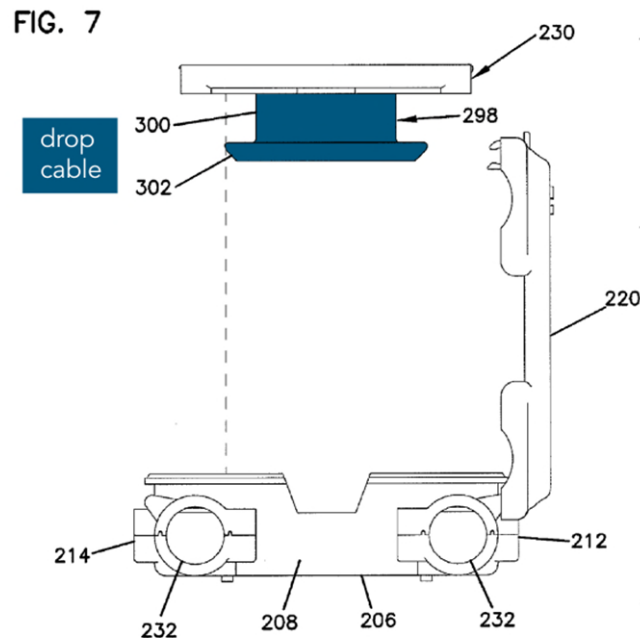
Holmberg FIG. 6 (Annotated)
Drop Cable Stripped And Spooled/Stored



In order to access the *drop cable*, “fibers within the wall box 200, selected fibers from the cable can be terminated (*i.e.*, cut) adjacent one of the clamping portions 310 so as to provide a length of terminated fiber within the enclosure 202.” Holmberg ¶[0053], FIGS. 5-6; Eldering ¶44.

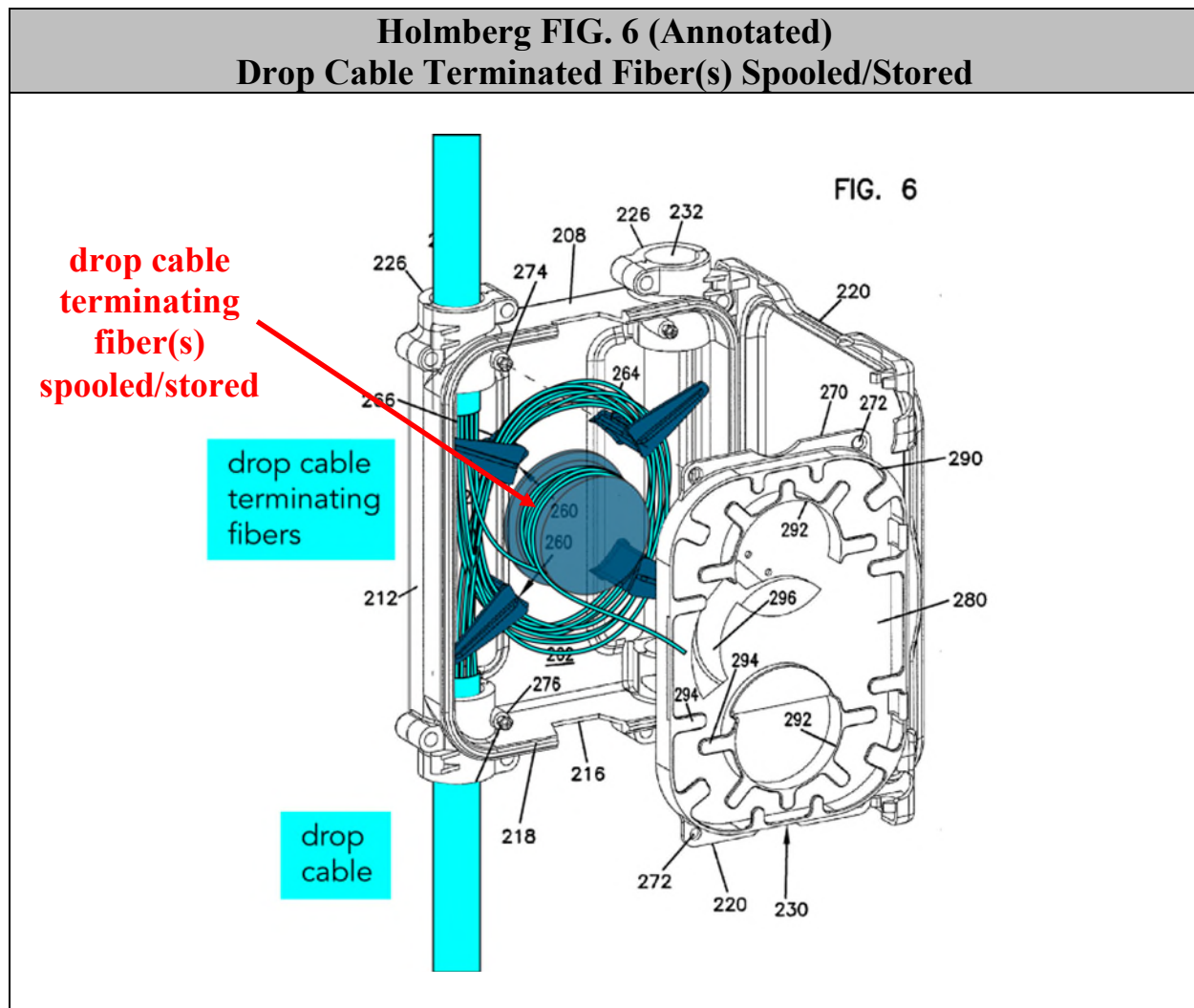
“The splice tray 230 also provides cable/fiber management within the interior of the enclosure 202.” Holmberg ¶[0042]. As Holmberg explains, “[t]he length of [drop cable] terminated fiber can be spooled around the spool structure 298 of the

splice tray 230 for storage purposes.” Holmberg ¶¶[0053], [0045], FIG. 7; Eldering ¶45.



The “spool structure 298 ... projects rearwardly from the back side of the main panel 288 [and] includes a cylindrical spool 300 about which excess fiber can be wrapped.” Holmberg ¶[0045], FIG. 7. “The spool structure 298 also includes an annular flange 302 located at the rear end of the spool structure 298 ... [that] is sized to nest inside the bend radius limiters 264 of the main body 216 of the enclosure 202 when the splice tray 230 is mounted within the enclosure 202.” Holmberg ¶[0045], FIGS. 4-7. As shown in the annotated figure below, the terminated fibers *of the drop cable* are spooled around the spool structure 298 on the back side of the splice tray 230, with the spool structure 298 shown superimposed inside the remainder of the drop cable fibers that were not terminated and are spooled around the radius

limiters 264. Holmberg ¶¶[0045], [0052]-[0053], FIGS. 4-7; Eldering ¶¶46-47.

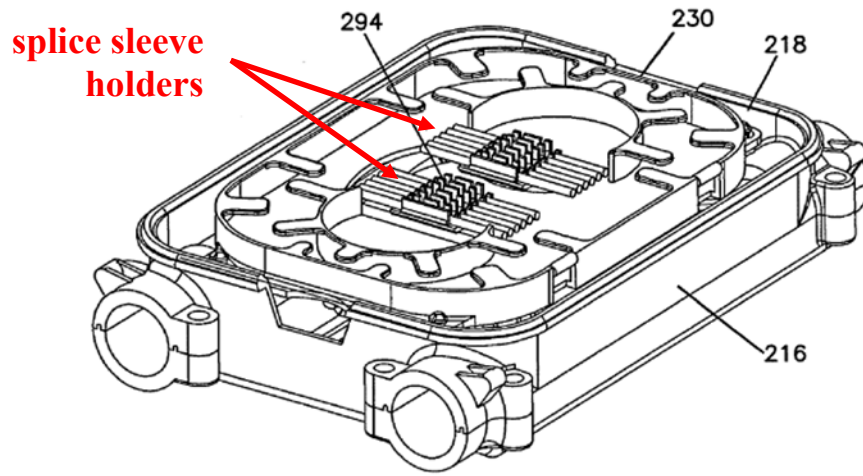


Accordingly, these “terminated” fibers are simply *fibers from the drop cable* that can eventually be spliced to distribution cables (*i.e.*, the terminated fibers are not a separate “*plurality of feed break-out cables coupleable to the drop cable*” as required by claim 1(d)). In other words, the terminated fibers, which are *part of the drop cable*, cannot be considered to be *coupleable to the drop cable*. Indeed, Petitioner even admitted that the “terminated fibers” are “of said stripped” drop

cable. Pet. 23-24; Eldering ¶48.

“When it is desired to splice one of the terminated fibers [of the drop cable] to a distribution cable, the terminated fiber can be accessed from the spool structure 298 and routed through one of the openings 296 in the splice tray 230 to the front side of the splice tray 230.” Holmberg ¶¶[0053], [0044]. “At the front side of the splice tray, the terminated optical fiber can be spliced to a corresponding fiber of another cable (*e.g., a distribution cable*) with the splice being mounted at the splice sleeve holder 294 as shown at FIG. 12.” Holmberg ¶¶[0053], [0044], FIGS. 4, 6, 12; Pet. 23-24 (“Holmberg teaches wall box 200 receives a jacketed cable, where at least a portion of said jacket is stripped inside said wall box 200, and terminated optical fibers of said stripped cable are spliced to corresponding fibers of a *distribution cable*.”), 27, 49, 55-56. “The *splice sleeve holders 294* are adapted for holding splice sleeves used to provide mechanical support to a fusion splice formed between two optical fibers.” Holmberg ¶[0044], FIG. 12; Eldering ¶¶49-50.

Holmberg FIG. 12



“Excess fiber can be stored by wrapping the excess fiber around the fiber storage walls 292 at the front side of the splice tray 230.” Holmberg ¶¶[0053], [0043], FIGS. 4, 6, 12; Eldering ¶51.

that the terminated fibers *of the drop cable* should be considered to be the claimed feed break-out cables. Pet. 27 (“As discussed in detail below for Claim 1(d), such terminated fibers meet the claimed “feed break-out cables.”), 44 (“Holmberg teaches terminated fibers (“feed break-out cables ...”), 49 (“Holmberg teaches the drop cable is stripped of its external jacket, the internal optical fiber components are routed in the box, and those fiber components are then separated out into terminated fibers (the claimed “feed break-out cables”).”).

The Federal Circuit has consistently “rejected obviousness determinations based on conclusory and unsupported expert testimony ... [that] use[d] the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—*i.e.*, the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.” *TQ Delta, LLC v. Cisco Sys.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019). Accordingly, the Petitioner’s and its expert’s conclusory arguments that Holmberg’s terminated fibers *of the drop cable* are “a plurality of feed break-out cables coupleable to the drop cable” without any supporting evidence or explanation should be rejected. *See. e.g., Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (Aug. 24, 2022) (precedential) (“Dr. Jones does not cite to any additional supporting evidence or provide any technical reasoning to support his statement. Thus, the cited declaration testimony is conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to

little weight.”); *K/S HIMPP v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1366 (Fed. Cir. 2014) (“[T]he Board **cannot** accept general conclusions about what is ‘**basic knowledge**’ or ‘common sense’ as a replacement for documentary evidence for core factual findings in a determination of patentability.”).

Moreover, Petitioner’s expert admitted that the terminated fibers were part of the **drop cable**. EX-1003 ¶69 (“Regarding terminated fibers, Holmberg teaches the jacketed [drop] cable encloses fibers which are cut (‘terminated fibers’) ...”), ¶73 (“Holmberg specifically teaches coupling **fibers of a drop cable (e.g., terminated fibers)** to a plurality of different subscriber locations, such as apartment buildings, to provide service to a plurality of subscribers.”). Furthermore, Petitioner never even attempted to explain how Holmberg’s terminated fibers, which are admittedly part of the drop cable, could be considered to be “**coupleable to the drop cable**” as required by claim 1(d). In other words, the terminated fibers, which are **part of the drop cable**, cannot be considered to be **coupleable to the drop cable**. And by the same token, the single drop cable cannot constitute both the drop cable and the separate feed break-out cable that is coupleable to the drop cable. Eldering ¶¶48, 53.

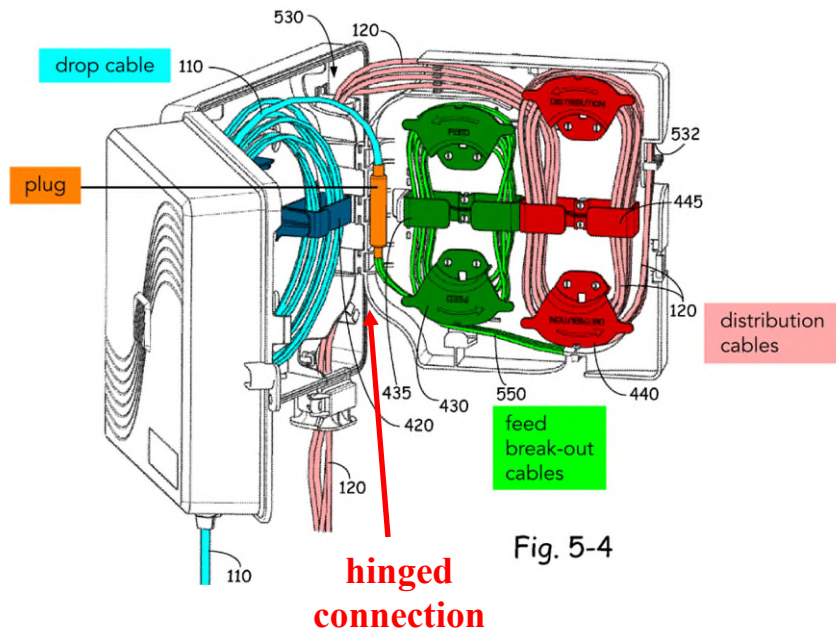
Petitioner’s reliance on the Holmberg’s storage of a **single drop cable** to allegedly disclose storage of both **the drop cable and the feed break-out cables** runs afoul of the Federal Circuit mandate that “[w]here a claim lists elements separately,

‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention.” *Tyco Healthcare*, 616 F.3d at 1254 (quoting *Gaus*, 363 F.3d at 1288; *see also HTC Corp. v. Cellular Communs. Equip., LLC*, 701 Fed. Appx. 978, 982 (Fed. Cir. 2017) (“The separate naming of two structures in the claim strongly implies that the named entities are not one and the same structure.”). This is especially true here where the claimed feed break-out cable is “coupleable” with the drop cable and therefore cannot be part of the drop cable. *See, e.g., Becton, Dickinson*, 616 F.3d at 1255 (“If the hinged arm and the spring means are one and the same, then the hinged arm must be ‘connected to’ itself and must ‘extend between’ itself and a mounting means, a physical impossibility.”); *Comcast Cable Communs., LLC v. Promptu Sys. Corp.*, 838 Fed. Appx. 551 (Fed. Cir. 2021) (“Claim 14 recites ‘a speech recognition system coupled to a wireline node.’ By listing the elements separately and by using the word ‘coupled,’ claim 14 strongly indicates the ‘speech recognition system’ is distinct from the ‘wireline node.’”); *Kingston Tech. Co., Inc. v. North Start Innovations, Inc.*, IPR2018-01784, Paper 32, at 30 (PTAB Feb. 26, 2020) (“The requirement for coupling between the claimed circuit elements indicates that distinct structural elements must correspond to the claimed circuit elements. For instance, if the ‘data storage device’ and the ‘data feedback circuit’ were the same structural elements, then the ‘data feedback circuit’ would be coupled to itself. But that would render the claim nonsensical.”);

DeCurtis LLC v. Carnival Corp., IPR2021-00784, Paper 11, at 13 (PTAB Oct. 8, 2021) (“Furthermore, not only are the communication module and locking mechanism recited as separate elements, the phrase “electrically connected to each other” denotes a further level of distinction between those two components.”)

The claims, which separately recite storing a drop cable, feed break-out cables, and distribution cables, are consistent with the specification and drawings, which repeatedly disclose the storage of the three different types of cables that are coupled to each other. ’483 Patent 1:50-59 (“drop optical fiber cable, the multiple individual feed optical fiber cables, and the multiple individual distribution optical fiber cables”), 2:6-14 (“drop, feed and distribution fiber cable storage”), 2:36-41, 3:9-12 (“drop, feeder breakout, and distribution cables”), 3:27-31, 4:66-5:7, 6:19-21, FIGS. 2-1, 2-2, 4-1-5-4, 6-1, 6-4; Eldering ¶¶28-35.

'483 Patent FIG. 5-4 (Annotated)
Storage Of Three Different Types Of Cables



The Federal Circuit has consistently “rejected obviousness determinations based on conclusory and unsupported expert testimony ... [that] use[d] the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—*i.e.*, the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.” *TQ Delta, LLC v. Cisco Sys.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019). Accordingly, Petitioner’s and its expert’s erroneous and unsupported theory that Holmberg’s terminated fibers *of the drop cable* are “a plurality of feed break-out cables *coupleable to the drop cable*” should be rejected. See *Chongqing HKC Optoelectronics Co., Ltd. v. 138 East LCD Advancements Limited*, IPR 2023-00476, Paper 9, 13-14 (PTAB Aug. 28, 2023) (denying institution

based Petitioner’s expert’s unsupported testimony that separately claimed “wiring lines” and “a plurality of lead wiring lines” were disclosed by segments of the prior art’s single wire).

To establish a *prima facie* case of obviousness, Petitioner has the “burden to prove that ***all claimed limitations*** are disclosed in the prior art.” *Par Pharm., Inc. v. TWi Pharms., Inc.*, 773 F.3d 1186, 1194 (Fed. Cir. 2014). This is because courts “consider motivation to combine and reasonable expectation of success only if all the elements of an invention are found in a combination of prior art references.” *Id.* Since Holmberg does not disclose or suggest “a ***fiber storage panel*** having first spools positioned ***to store a plurality of feed break-out cables coupleable to the drop cable***, ...[and] further having second spools ***positioned to store a plurality of distribution cables coupleable to the plurality of feed break-out cables***” (claim 1(d)), neither Ground 1, nor Ground 3, which rely solely upon Holmberg regarding the claimed storage of the feed break-out cable limitations, render obvious independent claim 1 or any of the Challenged Claims. Eldering ¶54.

B. Replacing Holmberg’s Fixed Splice Tray With A Rotational Splice Tray Would Not Only Be Antithetical To The Teachings Of Both Homberg and Battey, It Would Render Petitioner’s Proposed Prior Art Combination Inoperable For Its Intended Purposes.

As explained above, the DIB 100 disclosed in the ’483 Patent includes a ***hinged*** fiber storage panel 405 for storing the excess or “slack” feed break-out cables

and distribution cables, where the fiber storage panel 405 has a *hinged connection* 406 to an opposing side of the base unit 205. '483 Patent 4:49-53, 2:33-35 (“a base, cover and *hinged* fiber storage panel”), FIGS. 4-1-5-4, 6-1, 6-4. The “*hinged* fiber storage panel [405] includes spools, cable clips and integrated cable channels that maintain cable radius during transitions of cables from a storage side or plane of the panel to a connector side or plane of the panel.” '483 Patent Abstract, 2:10-14, FIG. 4-1; Eldering ¶¶55-56.

Fiber storage “panel 405 is hinged [406] to provide convenient access to both sides of the panel.” ’483 Patent 5:32-34; Eldering ¶57.

side opposite the hinged connection of the cover to the base unit such that the fiber storage panel is moveable relative to the base unit” (claim 1(c)). ’483 Patent 7:36-40; Eldering ¶58.

For both Grounds 1 and 3, Petitioner proposed another conclusory, unsupported, and erroneous modification theory that Holmberg’s *fixedly mounted* splice tray 230 hypothetically could be replaced with Battey’s *hinged* work shelf 54. Pet. 35-44, 81. But in reality, a POSITA³ would not have replaced Holmberg’s fixedly mounted splice tray 230 with a hinged splice trace because such a modification would render Holmberg’s splice tray inoperable for its intended purpose (*i.e.*, to store cables and splices without detrimentally straining the terminated fibers of the drop cable and without severing any splices). Petitioner’s proposed combinations thus do not and cannot render obvious claim element 1(c) of the Challenged Claims. Eldering ¶59.

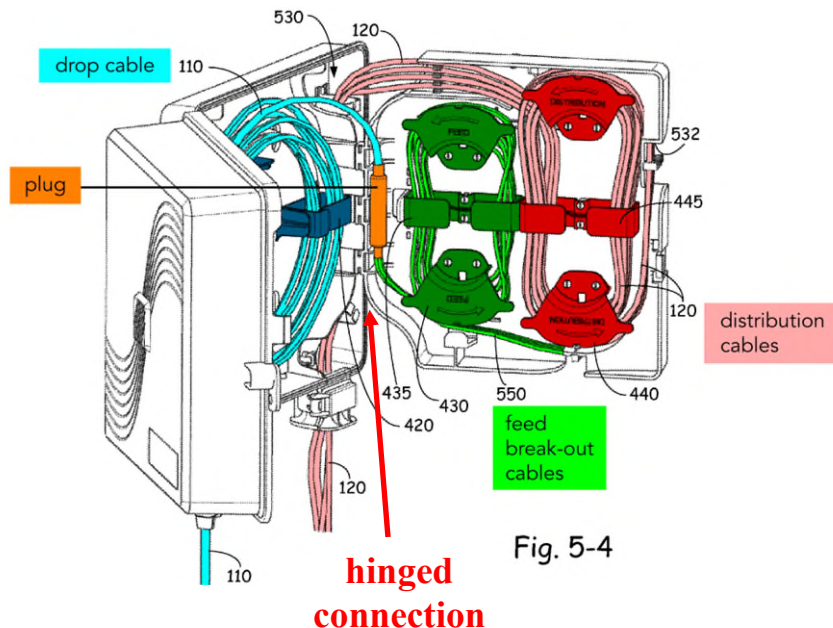
The ’483 Patent discloses a “DIB [that] provides organized drop, feed and distribution fiber cable storage and routing in a manner which ... *inhibits cable*

³ All references to a POSITA herein refer to a “person of ordinary skill in the art” at the time of the claimed invention (2011). Eldering ¶¶19-26. Any differences between the parties’ proposals definitions of POSITA (Pet. 7-8) are insubstantial and do not impact the analysis of the issues presented.

strain.” ’483 Patent Abstract, 2:6-10. Indeed, Petitioner admitted that “it is an *important feature* of the ’483 Patent that its DIB ‘provides organized drop, feed and distribution fiber cable storage’ and ‘... *inhibits cable strain.*” Pet. 3, 11-12 (citing ’483 Patent, 2:6-10); Eldering ¶60.

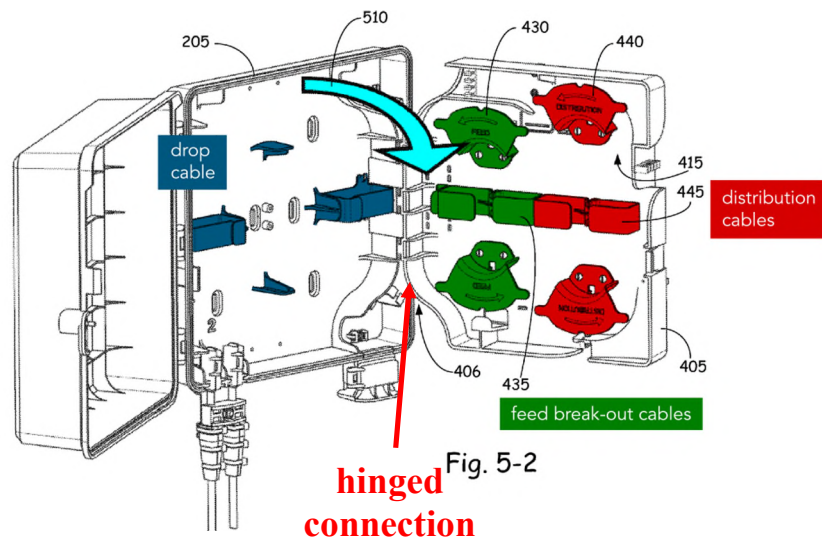
To prevent cable damage by avoiding rotationally straining the stored fiber cables, the hinged fiber storage panel 405 disclosed in the ’483 Patent is configured to transition the cables from the fixed base 205 to the hinged fiber storage panel 405 *adjacent to the hinge 406* of the fiber storage panel 405. For example, as shown in FIG. 5-4 above, “[a] break-out or furcation plug 450 positioned *near the upper end of hinged connection 406* divides the drop feed cable 110 into multiple (*e.g.*, typically four) individual feed cables 550.” ’483 Patent 4:66-5:2; FIGS. 4-1, 5-4; Eldering ¶61.

**'483 Patent FIG. 5-4 (Annotated)
Hinged Fiber Storage Panel**



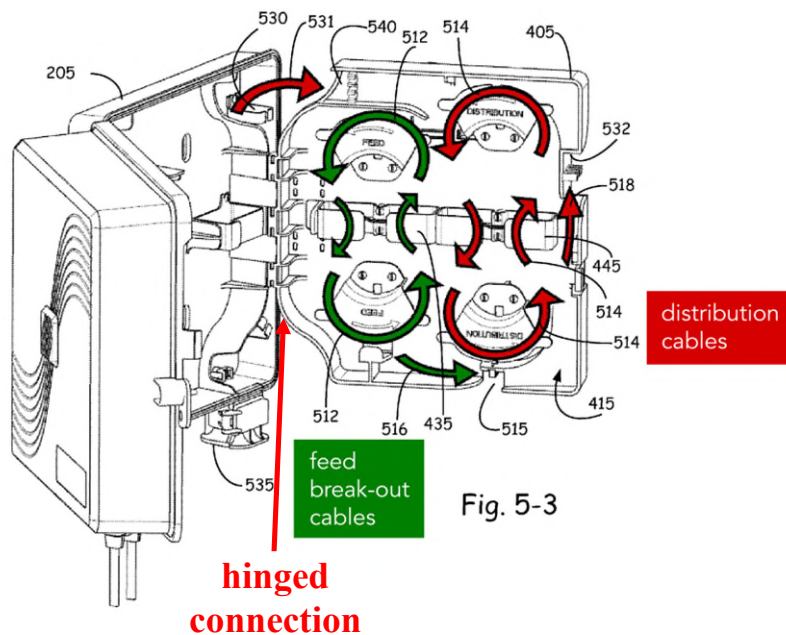
“The feeder cable breakout adapter storage area is located on the panel 405 *nearest the hinge axis 406* and aligned with the hinge axis to allow easy transition of the drop cable 110 from the storage in the base 205 to the panel 405.” ’483 Patent 5:43-47. “The proximity and alignment to the hinge also allows the panel to be operated (open and closed) *without excessive stress to the cable transition.*” ’483 Patent 5:47-50, FIG. 5-2. As shown in FIG. 5-2 below, “arrow 510 represent[s] the routing of cable 110 from base 205 to the rear side 415 of hinged fiber storage panel 405,” where the routing takes place proximate *the hinged connection/axis 406*. ’483 Patent 5:30-32, FIG. 5-2; Eldering ¶¶62-63.

'483 Patent FIG. 5-2 (Annotated)
Hinged Fiber Storage Panel



Similarly, as shown in FIG. 5-3 below, “[i]ntegrated cable channel 530 is positioned parallel to the panel hinge 406 and located to the side edge of base 205 to allow the distribution cable 120 to be routed from the distribution cable entrance 535 to the top of the base and onto the panel 405 through opening 540 ... *without causing unnecessary stress or bending* during panel movement or operation.” ’483 Patent. ’483 Patent 5:62-6:8, 6:28-36, 7:1-7, FIGS. 5-3, 6-1, 6-4; Eldering ¶64.

'483 Patent FIG. 5-3 (Annotated)
Hinged Fiber Storage Panel



Unlike the *hinged* fiber storage panel 405 disclosed and claimed in the '483 Patent that can rotate relative to the base 205 of the DIB 100, Petitioner admitted that Holmberg's *splice tray 230 is fixedly mounted using fasteners* to the main body 206 of the enclosure. Holmberg ¶¶[0035] ("a splice tray 230 that mounts in the interior of the enclosure 202"), [0042] ("[B]y positioning the splice tray 230 so that the fastener openings 272 align with the internally threaded openings of the bosses 274, and then inserting fasteners 276 through the fastener openings 272 and into the bosses 274, *the splice tray 230 can easily be fastened* within the interior of the enclosure 202"); Pet. 36 ("Holmberg further teaches splice tray 230 is configured to be *fastened to main body 216*"), 38 ("Holmberg does not expressly teach splice

tray 230 having a *hinged* connection to main body 216.”); Eldering ¶65.

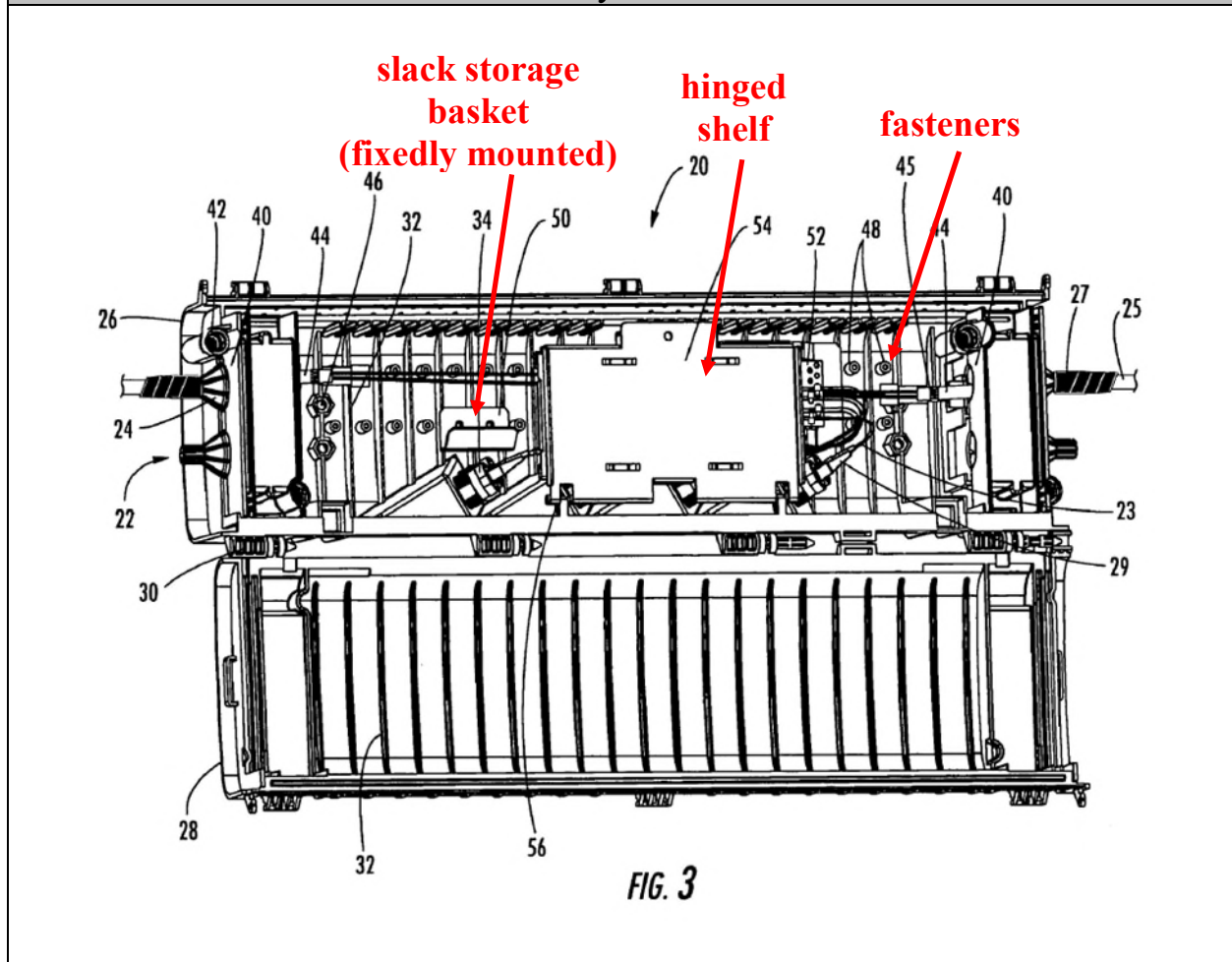
Since Holmberg admittedly fails to teach a hinged fiber storage panel, and instead teaches a *fixedly mounted* fiber storage panel, which is the antithesis of a hinged fiber storage panel, Petitioner theorized that Holmberg’s fixedly mounted fiber storage panel nonetheless could have been replaced by Battey’s alleged “teach[ing] such a hinged connection for a splice tray.” Pet. 38. According to Petitioner’s hindsight-driven theory, Battey’s hinged shelf 54 meets the claimed “fiber storage panel” and a POSITA would have been motivated to replace the fixedly mounted fiber storage panel 405 in Holmberg with Battey’s hinged shelf 54, even though such a replacement would result in the antithesis of Holmberg’s fixedly mounted splice tray 230. Pet. 20 (Battey’s “splice tray (‘fiber storage panel’)”), 40 (“[A] POSITA would have been motivated to modify Holmberg to utilize a hinged splice tray in light of Battey’s teachings instead of a fastened connection for splice tray 230”) Petitioner’s reliance upon Battey’s hinged shelf 54 is misplaced for many reasons. Eldering ¶66.

For instance, unlike either the ’483 Patent’s hinged fiber storage shelf 405 or Holmberg’s fixedly mounted splice tray 230, *Battey’s shelf 54 does not store any fiber optic cables*. Instead, Battey’s shelf 54 is used to mount and provide access to a splice tray, *not* for storing fiber optic cables. Battey ¶[0038] (“a conventional splice organizer or splice tray (obscured) is mounted to a work shelf 54”), ¶[0039]

(“allowing the shelf 54 to be rotated between an opened position for providing access to the splice tray and a closed position for storing the splice tray,” “the shelf 54 is rotatable relative to the base 26 through an angle of at least about 90 degrees and as much as about 180 degrees between the opened position and the closed position, thus providing full and convenient access to the splice tray”), FIG. 3; Eldering ¶67.

In fact, Battey specifically provides *a different structure for storing excess or slack fiber optic cable* and *teaches that fiber optic cables should avoid contacting the shelf 54*. For example, Battey expressly distinguishes its “splice trays,” which are mounted to the hinged shelf 54, from “*slack storage guides*,” which are *fixedly mounted* to the connection closure 20. Battey ¶[0033] (“The base 26 is generally box-shaped and defines an interior cavity for housing the express portion of distribution cable 25, connectorized optical fibers 23 and optical hardware, such as *splice trays*, couplers, adapters, optical fiber routing and *slack storage guides* and the like.”), FIGS. 1-3). More specifically, like Holmberg, Battey teaches that a “*slack basket 50 may be fastened to the hardware mounting features 48* and operable for receiving and storing slack lengths of optical fibers and/or optical fiber buffer tubes.” Battey ¶[0036], FIG. 3; Eldering ¶¶68-69.

Batthey FIG. 3



Accordingly, Batthey, expressly teaches the use of *fixedly mounted* slack baskets 50 for storing excess or slack fiber optic cables, instead of a hinged shelf for doing so, contrary to Petitioner’s made-up and erroneous theory regarding Batthey’s teachings. *See, e.g., Polaris Indus. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1069 (Fed. Cir. 2018) (“[S]tatements regarding preferences are relevant to a finding regarding whether a skilled artisan would be motivated to combine that reference with another reference.”); *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1048, 1051, n. 15

(Fed. Cir. 2016) (*en banc*); Eldering ¶70.

But not only does Battey teach that ***fixedly mounted*** slack baskets 50 should be used for storing excess or slack fiber optic cables, it expressly teaches that fiber optic cables should ***avoid*** contacting the hinged shelf 54 “so as to ***not*** interfere with the movement of the shelf 54 between the opened and closed positions.” (Battey ¶[0039], FIG. 3.) In other words, Battey teaches away from using the hinged shelf 54 for fiber optic cable storage. *See Polaris Indus.*, 882 F.3d at 1069 (“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.”); Eldering ¶71.

Further evidence that Battey teaches away from having the hinged shelf 54 store fiber optic cables is its disclosure that “the shelf 54 may be slidably attached to the base 26 to selectively expose portions of the interior cavity of the base 26, or may be removably attached to the base 26 to provide unobstructed access to the interior cavity” (Battey ¶[0039]), which would be inconsistent with using the shelf for storage of excess lengths of fiber optic cables; Eldering ¶72.

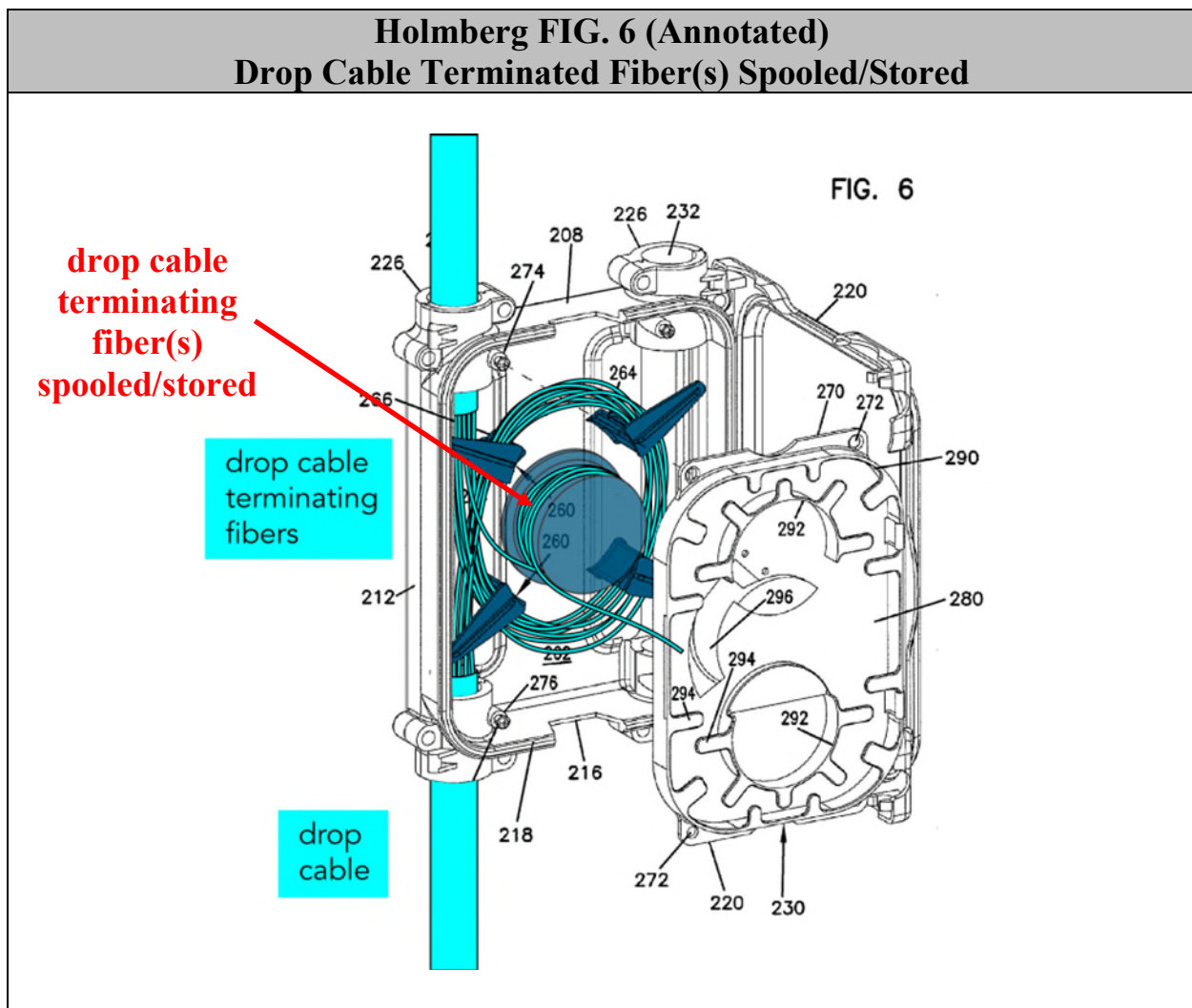
Accordingly, Battey provides no support for—and in fact teaches away from—Petitioner’s unsupported and erroneous theory that a POSA would be motivated to replace Holmberg’s fixedly mounted splice tray with a hinged splice

tray, since doing so would be the antithesis of Holmberg's teachings and Battey teaches away from such a modification. Eldering ¶73.

In addition, Petitioner's proposed modification of Holmberg to make the splice tray 230 hinged is also flawed because it would render Holmberg inoperable for its intended purpose and/or alter its basic principle of operation. The Federal Circuit has routinely rejected proposed modifications of the prior art that would render the prior art inoperable for its intended purpose and/or alter the basic principles under which the prior art was designed to operate. *See, e.g., In re Fritch*, 972 F.2d 1260, 1265 n.12 (Fed. Cir. 1992) ("A proposed modification [is] inappropriate for an obviousness inquiry when the modification render[s] the prior art reference inoperable for its intended purpose."); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959) (finding no motivation to make suggested combination because it "would require a change in the basic principles under which [that reference's] construction was designed to operate."). As will be explained, making Holmberg's fixedly mounted splice tray 230 hinged and rotatable, as Petitioner proposed, would introduce stresses on the terminated fibers of the drop cable and distribution cables stored on the splice tray 230. These stresses, and the resulting strains on the fibers and splices, would compromise or even sever the delicate splices made between the fibers.. Eldering ¶74.

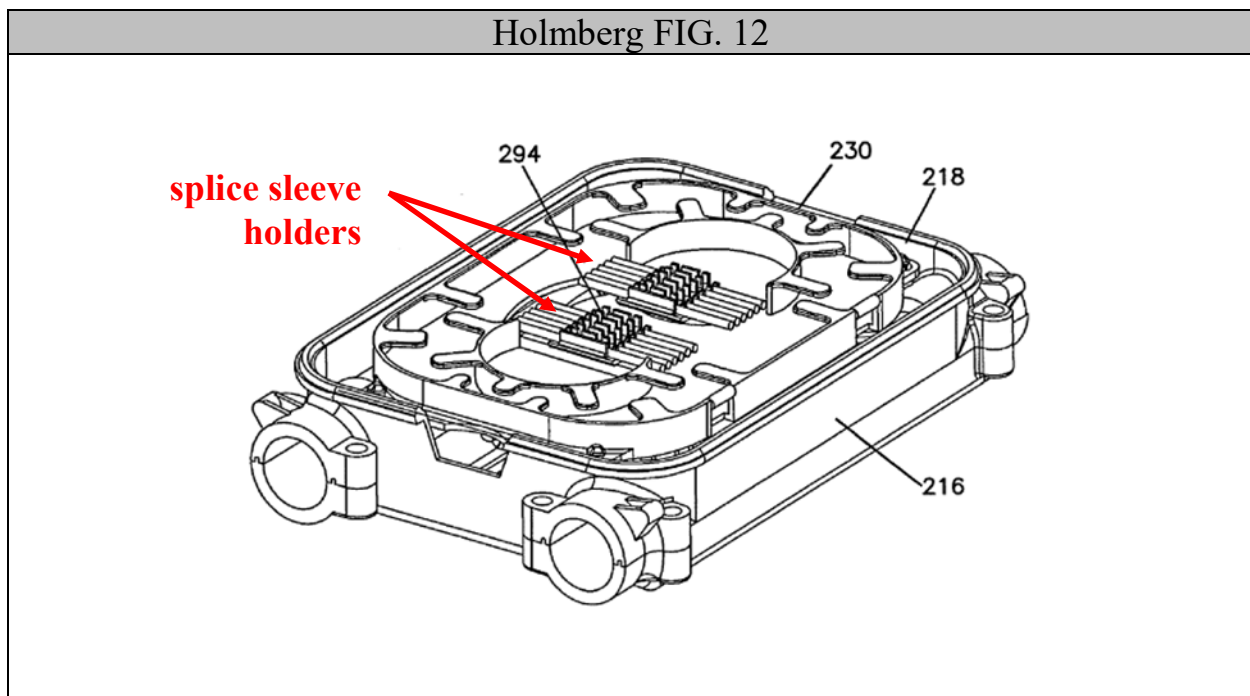
As shown in the annotated figure below, the terminated fibers of the drop

cable in Holmberg are spooled around the spool structure 298 on the back side of the splice tray 230, with the spool structure 298 shown superimposed inside the remainder of the drop cable fibers that were not terminated and are spooled around the radius limiters 264. Holmberg ¶¶[0045], [0052]-[0053], FIGS. 4-7; Eldering ¶75.

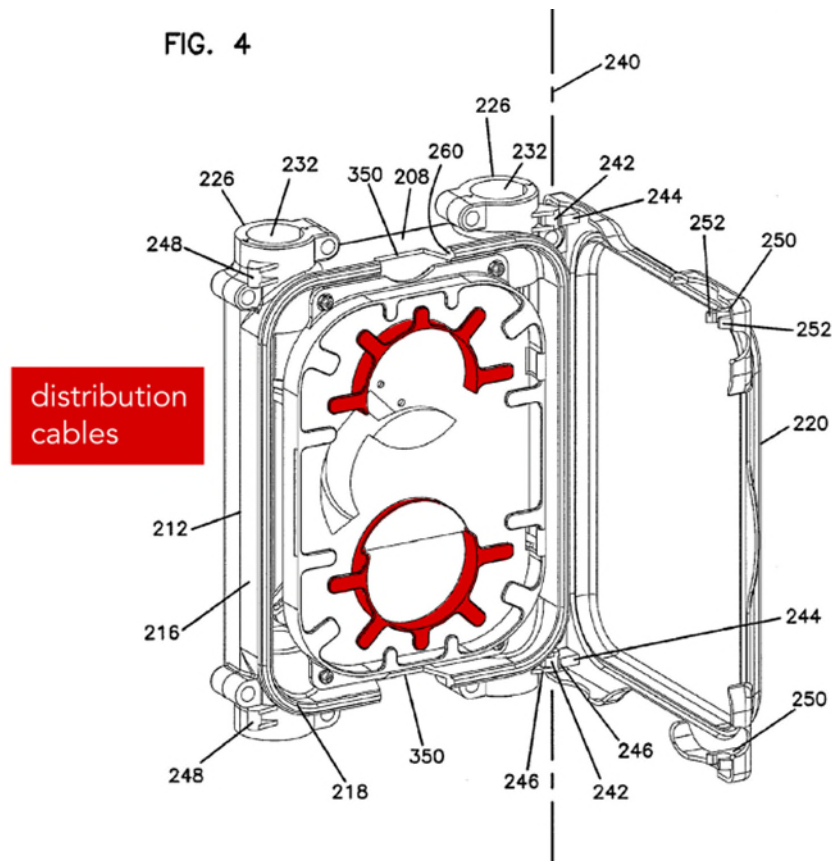


“When it is desired to splice one of the terminated fibers [of the drop cable] to a distribution cable, the terminated fiber can be accessed from the spool structure

298 and routed through one of the openings 296 in the splice tray 230 to the front side of the splice tray 230.” Holmberg ¶¶[0053], [0044]. “At the front side of the splice tray, the terminated optical fiber can be spliced to a corresponding fiber of another cable (e.g., a distribution cable) with the splice being mounted at the splice sleeve holder 294 as shown at FIG. 12.” Holmberg ¶¶[0053], [0044], FIGS. 4, 12; Pet. 23-24 (“Holmberg teaches wall box 200 receives a jacketed cable, where at least a portion of said jacket is stripped inside said wall box 200, and terminated optical fibers of said stripped cable are spliced to corresponding fibers of a distribution cable.”), 27, 49, 55-56. “The *splice sleeve holders 294* are adapted for holding splice sleeves used to provide mechanical support to a fusion splice formed between two optical fibers.” Holmberg ¶[0044], FIG. 12; Eldering ¶¶76-77.



“Excess fiber can be stored by wrapping the excess fiber around the fiber storage walls 292 at the front side of the splice tray 230.” Holmberg ¶¶[0053], [0043], FIGS. 4 (annotated), 6, 12; Eldering ¶78.



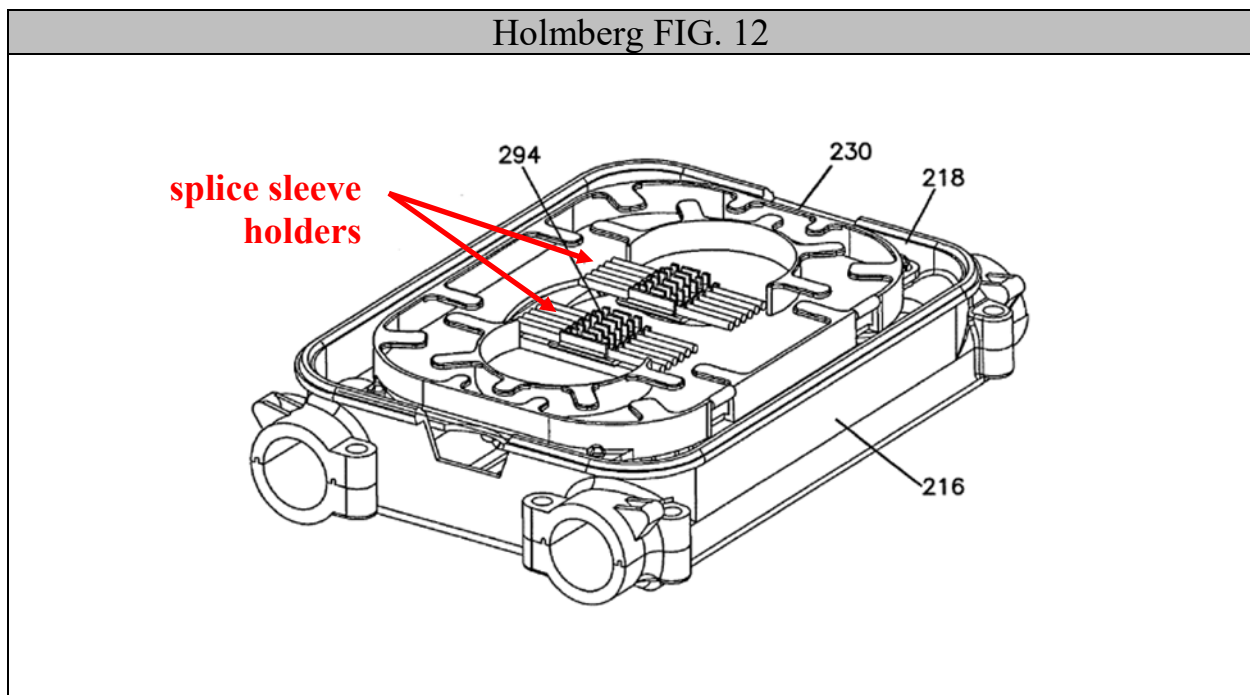
Accordingly, a POSITA would understand that rotating Holmberg’s splice tray 230 away from the main body 216 as Petitioner proposed (rather than fixedly attaching the splice tray 230 to the main body as actually taught by Holmberg), would (1) detrimentally strain the terminated fibers of the drop cable, which are spooled around the spool structure 298 on the back side of the splice tray 230, and the distribution cables, which are wrapped around the fiber storage walls 292 at the

front side of the splice tray 230 when the splice tray 230 rotates, and (2) adversely compromise or sever any splices made between the fibers and held in the splice sleeve holders 294 as the splice tray 230 was rotated. Eldering ¶79.

To support an obviousness finding, the proposed modification must be “desirable,” not merely “feasible.” *Winner Int’l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 (Fed. Cir. 2000). When determining whether a POSITA would be motivated to make a proposed modification, the Federal Circuit has repeatedly instructed that “the benefits, both lost and gained, should be weighed against one another.” *Id.* at 1349 n.8 (Fed. Cir. 2000); *see also Arctic Cat Inc. v. Polaris Indus.*, 795 Fed. Appx. 827, 833-834 (Fed. Cir. 2019) (“The Board **must weigh** the benefits and drawbacks of the modification against each other, to determine whether there would be a motivation to combine.”). Here, rotating the proposed hinged splice tray 230 in Holmberg would detrimentally strain the stored cables and splices and adversely compromise or sever any splices made between the fibers and held in the splice sleeve holders 294. And Petitioner’s only advantages for replacing Holmberg’s fixedly mounted splice tray 230 with a hinged splice tray invite the Board the commit legal and factual error because Holmberg’s fixedly mounted splice tray 230 already provides such advantages. Eldering ¶¶79-80.

For example, Petitioner claims that “a POSITA would have been motivated to modify Holmberg to utilize a hinged splice tray in light of Battey’s teachings instead

of a fastened connection for splice tray 230 because such a modification would have advantageously resulted in providing convenient access to the splice tray.” Pet. 40-41. But as explained above, Holmberg’s splice sleeve holders 294 are already fully accessible since they are the front side of the splice tray 230. Holmberg ¶[0044], FIG. 12; Eldering ¶80.



Similarly, Petitioner claims that using a hinged splice tray 230 in Holmberg would provide “easier access to the rear side of the splice tray and components located behind the splice tray in main body 216, such as the drop cable.” Pet. 43-44. But in reality, the terminated fiber in Holmberg’s fixedly mounted splice tray 230 can already “be accessed from the spool structure 298 and routed through one of the openings 296 in the splice tray 230 to the front side of the splice tray 230”

without the disadvantages of detrimentally straining the stored cables and adversely compromising or severing any splices made between the fibers and held in the splice sleeve holders 294. Holmberg ¶¶[0053], [0044]; Eldering ¶81. Accordingly, Petitioner has impermissibly “tried to create a problem with the prior art [which in reality does not exist] in hopes of creating a motivation to combine references, but it failed.” *Arctic Cat Inc.*, 795 Fed. Appx. at 833.

For all of these reasons, Petitioner’s proposed combination does not and cannot render obvious claim element 1(c).

V. THE BOARD SHOULD DENY INSTITUTION UNDER 35 U.S.C. §325(D)

The Board has discretion to deny review when “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). The Director may elect not to institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”).

In evaluating matters under § 325(d), the Board uses the following two-part framework: (1) determining 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, determining whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Id.* at 8.

In applying the two-part framework, the Board considers several non-exclusive factors, including:

(a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph).

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

Here, the Board should exercise its discretion under § 325(d) because the

Examiner previously considered the same or substantially the same references and arguments used in the Petition, and *Petitioner failed to even try to demonstrate any material error* of the Examiner that warrants reconsideration.

A. Petitioner’s Application Of The *Advanced Bionics* Framework Was Wrong And Incomplete.

Petitioner claimed that the first part of the *Advanced Bionics* framework was allegedly not satisfied because “all [] grounds also rely critically on U.S. Patent Pub. 2008/0112681 to Battey et al. (“Battey”)—a reference that was not cited during prosecution and supplies teachings the examiner deemed lacking from the art of record.” Pet. 6. According to Petitioner, “the proposed grounds rely on Battey for the hinged fiber storage panel limitation, which was added by amendment, purportedly distinguishing the art of record and leading to the patent’s issuance.” Pet. 6-7. Having incorrectly concluded that the same or substantially the same prior art or arguments were never presented to the Office, Petitioner never presented any analysis of the second part of the *Advanced Bionics* framework (*i.e.*, determining whether the Office erred in a manner material to the patentability of challenged claims). But as explained *infra*, because the same or substantially the same prior art and arguments were presented to the Office during prosecution (*i.e.*, another prior art reference naming Battey as an inventor that was cumulative to Battey and was identified as an “X” reference in the PCT Application and considered by the Examiner), and the Office

did not err in allowing the Challenged Claims, the Board should exercise its discretion under § 325(d) and deny institution.

1. The Prosecution Of The '483 Patent (Including The PCT Application)

The '483 Patent issued from U.S. Application No. 14/009,955 (“the U.S. Application”), which was a national stage application of PCT Application No. PCT/US2012/032320 (“the PCT Application”). '483 Patent Cover Page [21], [22], [86]. The PCT Application published as PCT Publication No. WO2012/138856 (“the PCT Publication”). '483 Patent Cover Page [87]; EX-1002 44-74.

The original claims of the PCT Application, including claims 1 and 2, were identical to the original claims of the U.S. Application as shown below.

U.S. Application Original Claims EX-1002 102 (element #s removed)	PCT Application Original Claims EX-1002 5 5(element #s removed)
1. A drop interface box configured to be mounted to a structure and to receive a drop cable from an optical fiber service provider distribution point and a plurality of distribution cables which distribute the optical fiber service, the drop interface box comprising: a base unit having a drop cable entrance configured to receive the drop cable and having drop cable retaining mechanisms spaced apart and configured to retain a length of drop cable looped around the drop cable retaining mechanisms; a cover having a hinged connection to the base unit to selectively enclose a	1. A drop interface box configured to be mounted to a structure and to receive a drop cable from an optical fiber service provider distribution point and a plurality of distribution cables which distribute the optical fiber service, the drop interface box comprising: a base unit having a drop cable entrance configured to receive the drop cable and having drop cable retaining mechanisms spaced apart and configured to retain a length of drop cable looped around the drop cable retaining mechanisms; a cover having a hinged connection to the base unit to selectively enclose a

<p>storage area provided in the base unit; and</p> <p>a fiber storage panel moveable relative to the base unit and configured to be stored between the base unit and the cover, the fiber storage panel having first spools positioned to store a plurality of feed break-out cables coupleable to the drop cable, the fiber storage panel further having second spools positioned to store a plurality of distribution cables coupleable to the plurality of feed break-out cables.</p> <p>2. The drop interface box of claim 1, wherein the fiber storage panel includes a hinged connection to the base unit on a side opposite the hinged connection of the cover to the base unit.</p>	<p>storage area provided in the base unit; and</p> <p>a fiber storage panel moveable relative to the base unit and configured to be stored between the base unit and the cover, the fiber storage panel having first spools positioned to store a plurality of feed break-out cables coupleable to the drop cable, the fiber storage panel further having second spools positioned to store a plurality of distribution cables coupleable to the plurality of feed break-out cables.</p> <p>2. The drop interface box of claim 1, wherein the fiber storage panel includes a hinged connection to the base unit on a side opposite the hinged connection of the cover to the base unit.</p>
---	---

As explained *infra*, during prosecution of the U.S. Application, the Applicants amended independent claim 1 to add the subject matter of dependent claim 2 (*i.e.*, “the fiber storage panel includes a hinged connection to the base unit on a side opposite the hinged connection of the cover to the base unit”) before allowance of independent claim 1. EX-1002 247.

Before the U.S. Application was filed, WIPO issued its International Search Report (“ISR”) and Written Opinion (“WO”). EX-1002 31-43. The ISR preliminarily determined that original claim 1 was not novel based on several prior art references, including Holmberg (relied upon by Petitioner in each of the grounds

in this IPR) and U.S. Patent Application Publication No. 2003/103750 A1 (“Laporte”) (EX-2002). EX-1002 33-34. The ISR also preliminarily determined that original dependent claim 2 (directed to the hinged fiber storage panel) was not novel over Laporte. EX-1002 33. The ISR cited Laporte’s Figures 1-3 and 6. EX-1002 33. Jennifer A. Battey, the lead inventor of Battey relied upon in each of Petitioner’s grounds, is a named inventor of Laporte. EX-2002 Cover Page [76].

The ISR also indicated that U.S. Patent Application Publication No. 2004/062508 A1 (“Blankenship Publication”) (EX-2003) was a “document defining the general state of the art which is not considered to be of particular relevance.” EX-1002 33. The Blankenship Publication is the published application of Blankenship relied upon by Petitioner for Grounds 2-5. *Compare* EX-1006 to EX-2003.

In the WO, the PCT Examiner determined that original claim 1 lacked novelty based on Laporte,⁴ specifically identifying Laporte’s “moveable panel 40.” EX-1002 185. Regarding original claim 1’s requirement that the fiber storage panel be moveable, the PCT Examiner determined that Laporte’s disclosure in paragraph [0018] disclosed a panel that can be removed to assist access to fiber cables. EX-1002 186-187. As also explained *infra*, Laporte’s disclosure of a hinged transition

⁴ In the WO, Laporte was identified as “D3.”

panel 40 is cumulative of the hinged shelf 54 disclosure in Battey that Petitioner relied upon in its Petition; Eldering ¶¶82-88.

When the U.S. Application was filed in October 2013, Applicants submitted an Information Disclosure Statement (“IDS”). EX-1002 2-5. The IDS disclosed the PCT ISR and WO, as well as all of the prior art identified in those documents (including Holmberg, Laporte, and the Blankenship Publication). EX-1002 2-5, 31-43. In a first office action, the Examiner indicated that he considered all of the materials disclosed in the IDS, including the arguments made by the PCT Examiner in the ISR and WO. EX-1002 239-240. The Examiner then rejected original claims 1-4 and 11-14 as obvious over Holmberg. EX-1002 232-234.

Regarding original dependent claim 2, which was directed to the hinged fiber storage panel, the Examiner stated that “Holmberg teaches that the fiber storage panel includes a hinged connection to the base unit on a side opposite the hinged connection [o]f the cover to the base unit (Fig. 6).” EX-1002 234. Applicants responded by amending original independent claim 1 “to include the limitations of original independent claim 2” (*i.e.*, “a fiber storage panel having a hinged connection to the base unit on a side opposite the hinged connection of the cover to the base unit such that the fiber storage panel is moveable relative to the base unit and configured to be stored between the base unit and the cover”) and canceled claim 2. EX-1002 247, 253.

In the Remarks, Applicants explained that Holmberg’s “splice tray 230 is not hinged to the base unit, or any other structure.” EX-1002 254. Applicants further argued that Holmberg’s teaching of a fixedly mounted splice tray 230 “teach[es] away from a hinged connection”:

Fig. 6 and the specification of Holmberg clearly teach away from a hinged connection by using threaded fasteners, fastener openings 272, and bosses 274 to fasten the splice tray to the main body 216. The only disclosed connection between splice tray 230 and main body 216 is via threaded fasteners, and one of skill in the art would not use fasteners in this manner if a hinged connection were utilized.

EX-1002 254.

In the Notice of Allowance, the Examiner provided his reasons for allowance, concluding that “the prior art as best exemplified by US 2009/0202214 to Holmberg et al., taken individually or in combination, fails to disclose or render obvious a fiber storage panel having a hinged connection to the base unit” EX-1002 285.

On April 14, 2015, the ’483 Patent issued, listing in the References Cited the PCT ISR and WO, along with the seven prior art references identified in those documents, as well as an office action from the foreign equivalent application in Colombia. ’483 Patent Cover Page [56].

B. Part One Of The *Advanced Bionics* Framework

1. *Becton, Dickinson Factors (a) And (b): The Prior Art Cited By Petitioner Is The Same Or Substantially The Same Prior Art Considered By The Examiner.*

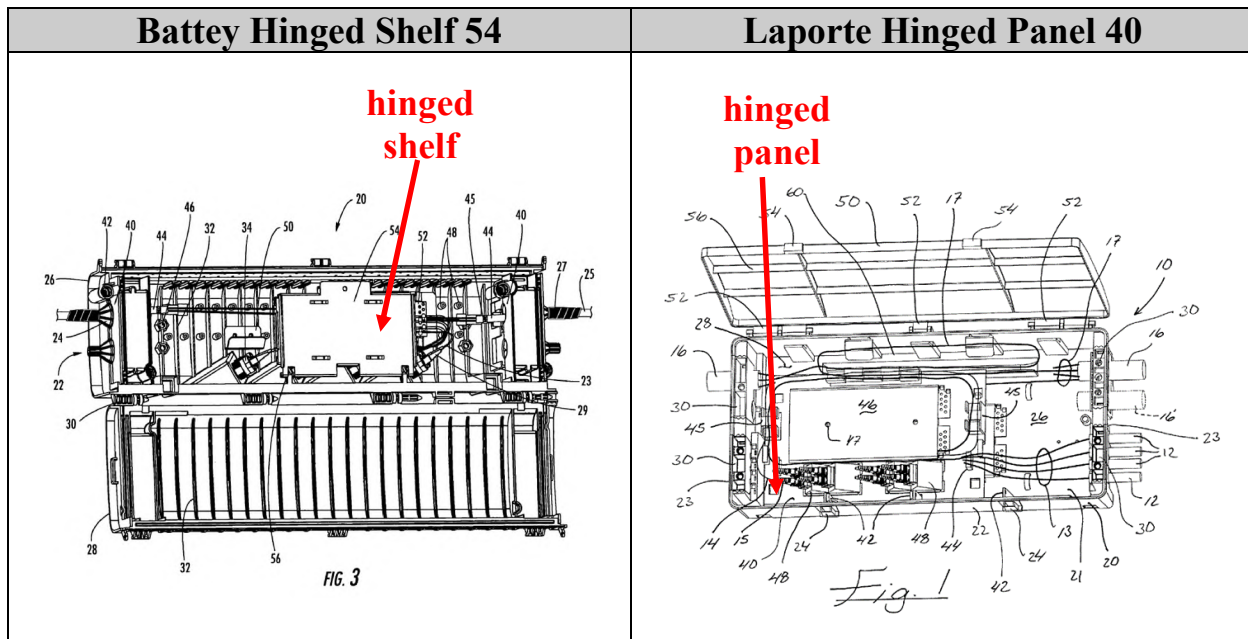
Petitioner relied upon Holmberg and Battey in all five proposed grounds, and

relied upon Blankenship for Grounds 2-5. The parties agree that Holmberg, which was considered in the IDS⁵ (EX-1002 239) and relied upon in a rejection (EX-1002 232-234), “was substantively discussed during prosecution.” Pet. 6.

The parties also agree that the Blankenship Publication (EX-2003), which was considered in the IDS (EX-1002 239), is the published application of Blankenship (EX-1006) relied upon by Petitioner for Grounds 2-5. Pet. 20.

As for Battey, Petitioner asserts that the “reference [] was not cited during prosecution.” Pet. 6. While Petitioner is correct that Battey itself was not cited during prosecution, Laporte (EX-2002), another patent by inventor Battey, was considered in the IDS (EX-1002 239), and extensively discussed in the PCT ISR and WO (EX-1002 33, 185-187) that was also considered in the IDS (EX-1002 240). And Laporte’s disclosure of a hinged transition panel 40 is cumulative to, and substantially the same as, the disclosure of a hinged shelf 54 in Battey now relied upon by Petitioner. Eldering ¶83.

⁵ The Examiner indicated that he considered all of the references disclosed in the IDS by stating “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.B./.” EX-1002 239-240.



Like Battey, Laporte discloses a “distribution terminal [] provided for interconnecting one or more fiber optic drop cables with at least one fiber optic distribution cable at a convenient access point in a telecommunications network.” Laporte Abstract, ¶¶[0014] (“The terminal 10 permits one or more fiber optic drop cables 12 to be easily and readily interconnected with at least one fiber optic distribution cable 16.”), [0015] (“The base 20 may have any of a variety of shapes that is suitable for housing telecommunications hardware and for routing and interconnecting one or more fiber optic drop cables 12 with at least one fiber optic distribution cable 16.”), FIGS. 1-2. Also like Battey, Laporte discloses a cover 50 hingedly attached to a base 20. Laporte ¶¶[0015] (“As shown, the cover 50 is generally rectangular and is hingedly affixed to the base 20 along the upper edge of one of the side walls 22 at one or more hinge locations 52.”), [0016] (“FIG. 1 shows

the terminal 10 with the cover 50 hingedly affixed to the base 20 and opened thereon.”), FIGS. 1-2; Eldering ¶¶84-85.

Similar to Battey’s hinged shelf 54 to which a splice tray is mounted, Laporte discloses splice trays 46 that are located on hinged transition panel 40. Laporte ¶¶[0020] (“Likewise, a plurality of splice trays 46, for example between one and four, are positioned in stacked relationship on transition panel 40...”), [0025] (“In particular, the drop cables are routed to telecommunications hardware, such as splice trays and transition adapters, on a movable transition panel located in the upper fiber management area.”); Eldering ¶86.

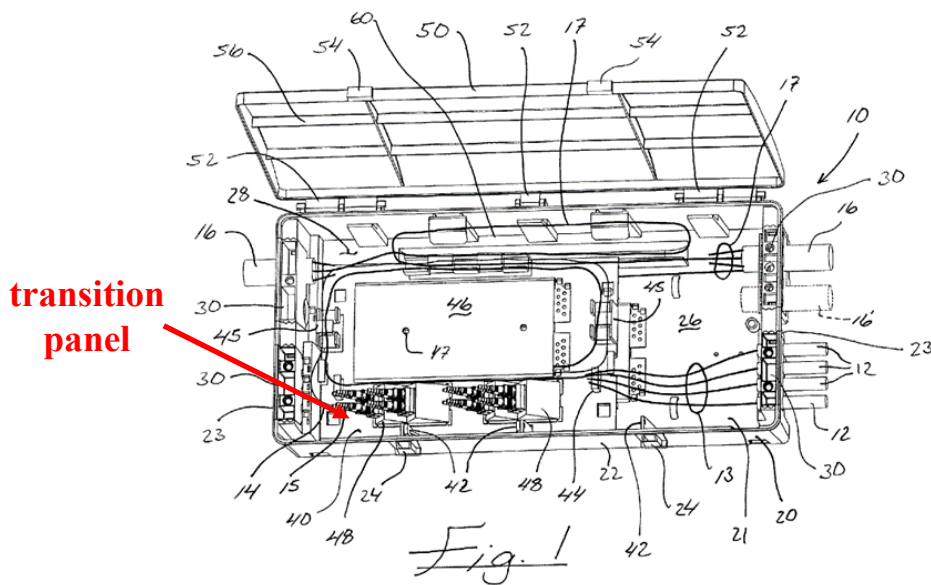
Laporte paragraph [0018], which was specifically cited in the PCT WO as teaching a panel that can be removed to assist access (EX-1002 186-187), extensively disclosed that the transition panel 40 is hingedly connected to the base 20 as shown in FIG. 1 (panel 40 closed/stowed) and FIG. 2 (panel 40 opened/deployed):

The ***transition panel 40 is movable relative to the base 20*** to expose the lower fiber management area 26 to the field technician initially installing the terminal 10 or subsequently reconfiguring the optical fiber connections within the terminal 10 at an access point in a telecommunications network. Preferably, ***the transition panel 40 is hingedly attached to the base 20 and adapted to be rotated*** thereon between a stowed position for accessing the upper fiber management area 28 and a deployed position for accessing the lower fiber management area 26 without disturbing the drop cables 12. As shown, the ***transition panel 40 is rotatable relative to the base 20*** through angle of about 110 degrees between the stowed position and the

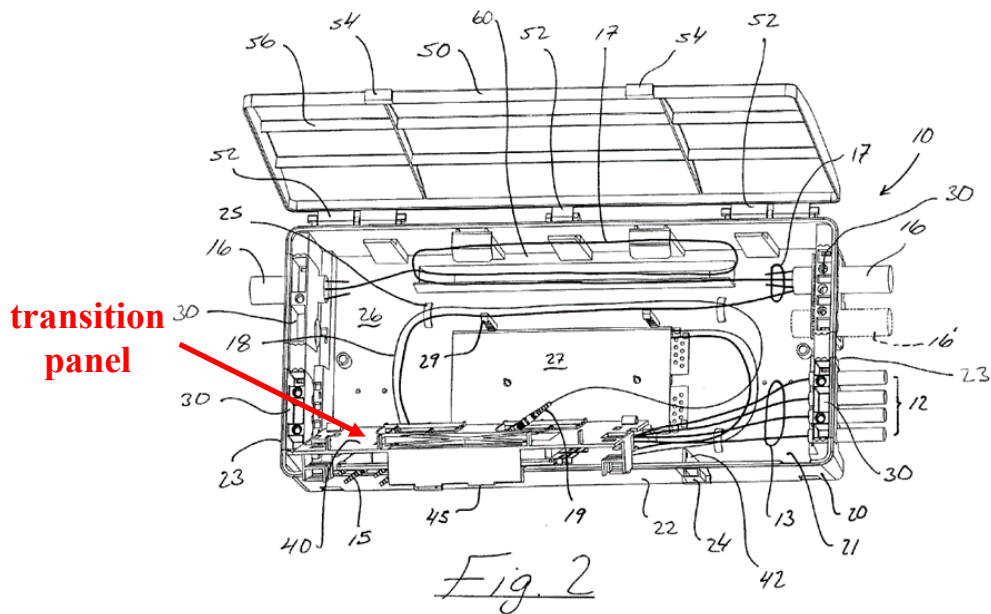
deployed position. The **transition panel 40** is generally rectangular and **is hingedly affixed to the base 20** along the upper edge of one of the side walls 22 at one or more hinge locations 42. As shown, the hinge locations 42 are located on the side wall 22 opposite the hinge locations 52 that hingedly affix the cover 50 to the base 20. However, the hinge locations 42 may be located on the same side wall 22 as the hinge locations 52. . . . The **base 20 is preferably provided with at least three hinge locations 42** along the side wall 22 so that the transition panel 40 may be positioned nearer the end wall 23 opposite the end wall 23 through which the drop cables 12 enter the terminal 10.”

Laporte ¶[0018]; Eldering ¶87.

**Laporte (EX-2002) FIG. 1
(Transition Panel 40 Closed/Stowed Position)**



Laporte (EX-2002) FIG. 1
(Transition Panel 40 Open/Deployed Position)



Accordingly, each and every teaching in Battey relied on in the Petition is the same or substantially the same as that disclosed by Laporte. Therefore, Battey is merely cumulative of Laporte, which was considered by the Examiner during prosecution of the '483 Patent; Eldering ¶88. For all these reasons, the same or substantially the same prior art was presented to the Office during prosecution of the '483 Patent, and the first part of the *Advanced Bionics* inquiry is met.⁶

⁶ For Grounds 4 and 5 asserted against dependent claim 10, Petitioner adds Cowen (EX-1007) to the combinations of Holmberg-Battey (Ground 1) and Holmberg-Blankenship-Battey (Ground 3) for Cowen's alleged disclosure of storage clips.

2. *Becton, Dickinson Factor (d): Substantially The Same Arguments Were Previously Considered By The Examiner.*

Since the same or substantially the same prior art was presented to the Office during prosecution of the '483 Patent, it is not necessary to also show that substantially the same arguments were previously considered by the Examiner. Nevertheless, Patent Owner also demonstrates that the Examiner also considered the same arguments now presented by Petitioner.

For example, as explained above, during prosecution of the '483 Patent, the Examiner applied Holmberg in an obviousness rejection in the same manner as Petitioner in this IPR. EX-1002 232-234. And as also explained *supra*, Laporte, which is cumulative to Battey, was considered in the IDS (EX-1002 239), and was extensively discussed in the PCT ISR and WO (EX-1002 33, 185-187) that was also considered in the IDS (EX-1002 240).

The Board has routinely determined that arguments made by a PCT Examiner in a WO and considered in an IDS by an Examiner in the Office during prosecution constitute “arguments considered” to meet part one of the *Advanced Bionics*

Pet. 81-87. Cowen’s disclosure of storage clips 292 (Cowen 27:41-28:7, FIGS. 26B, 26C, 28) is cumulative to Laporte’s disclosure of slack storage area 60 (Laporte ¶[0015], FIG. 1). Eldering ¶89.

framework. *See, e.g., Husky Injection Molding Sys., Ltd. v. Platipak Packaging, Inc.*, IPR2020-00437, Paper 23 at 12-13, 17-20 (PTAB July 29, 2020) (denying institution based on Examiner's consideration in an IDS of an argument provided from a European search report in a corresponding application concerning a prior art reference asserted in the IPR); *Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01540, Paper 14 at 6-9 (PTAB Mar. 22, 2023) (denying institution based on Examiner's consideration in an IDS of an argument provided from a European search report in a corresponding application concerning a prior art reference substantially similar to prior art asserted in the IPR).

Accordingly, the Examiner already considered the same or substantially the same arguments presented in the Petition before allowing the Challenged Claims.

C. Part Two Of The *Advanced Bionics* Framework

1. Becton, Dickinson Factor (c): Holmberg And Battey Were Extensively Evaluated During Examination.

In its § 325(d) analysis, Petitioner only addressed Holmberg and Battey, which are part of all five proposed obviousness grounds. Pet. 5-7. Holmberg, which the Examiner relied upon in rejecting the claims in the first office action (EX-1002 232-234), and Laporte, which Battey is cumulative to and which the PCT Examiner relied upon in the ISR and WO (EX-1002 33-34, 185-187), were extensively evaluated during prosecution prior to allowance of the claims.

2. *Becton, Dickinson Factors (e) And (f): Petitioner Failed To Sufficiently Point Out How the Examiner Erred Or Why The Evidence And Facts Of The Petition Warrant Reconsideration.*

Having incorrectly determined that (i) the same or substantially the same art and (ii) the same or substantially the same arguments were not previously presented to the Office, Petitioner incorrectly concluded that the first part of the *Advanced Bionics* framework was not satisfied. Pet. 6-7. And based on that incorrect conclusion, Petitioner did not even attempt to meet its burden to show that the Examiner materially erred. The Board has denied institution in cases where Petitioner failed to provide any analysis under the second part of the *Advanced Bionics* framework. See, e.g., *Ivantis*, IPR2022-01540, Paper 14 at 13-14 (denying institution since “Petitioner has not met its burden to show the examiner materially erred” when it made “no attempt to establish that the Examiner erred in evaluating the art or arguments previously presented to the Office” under the second prong of *Advanced Bionics*). The Board should do the same here and deny institution. Furthermore, as explained above, the Examiner did not err in allowing the Challenged Claims since Petitioner’s flawed proposed grounds are insufficient to render those claims obvious.

Date: December 21, 2023

Respectfully submitted,

/Denis J. Sullivan/

Denis J. Sullivan (Reg. No. 47,980)

Naresh K. Kannan (Reg. No. 71,730)

BARCLAY DAMON, LLP

Email: dsullivan@barclaydamon.com

Email: nkannan@barclaydamon.com

Cory C. Bell (Reg. No. 75,096)

FINNEGAN, HENDERSON, FARABOW,

GARRETT, & DUNNER LLP

Email: cory.bell@finnegan.com

Attorneys for Patent Owner

PPC Broadband, Inc.

CERTIFICATION OF COMPLIANCE WITH WORD COUNT

The undersigned hereby certifies that the foregoing Patent Owner Preliminary Response complies with the requirements of 37 C.F.R. § 42.24 and contains less than 14,000 words (11,070 words), excluding those contained in the following: Table of Contents, Table of Authorities, Grounds of Standing, Mandatory Notices, Certification of Compliance with Word Count, Certificate of Service, and the Exhibit List.

/Denis J. Sullivan /

Denis J. Sullivan (Reg. No. 47,980)
Naresh K. Kannan (Reg. No. 71,730)
BARCLAY DAMON, LLP
Email: dsullivan@barclaydamon.com
Email: nkannan@barclaydamon.com

Cory C. Bell (Reg. No. 75,096)
FINNEGAN, HENDERSON, FARABOW,
GARRETT, & DUNNER LLP
Email: cory.bell@finnegan.com

*Attorneys for Patent Owner
PPC Broadband, Inc.*

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing **PATENT OWNER PRELIMINARY RESPONSE** was served pursuant to 37 C.F.R. § 42.6(e) via electronic mail on December 21, 2023, on the following:

Paul R. Hart (Paul.Hart@eriseip.com)
Adam P. Seitz (Adam.Seitz@eriseip.com)
Kevin Rongish (Kevin.Rongish@eriseip.com)
PTAB@eriseip.com
ERISE IP

/Denis J. Sullivan /
Denis J. Sullivan (Reg. No. 47,980)
Naresh K. Kannan (Reg. No. 71,730)
BARCLAY DAMON, LLP
Email: dsullivan@barclaydamon.com
Email: nkannan@barclaydamon.com

Cory C. Bell (Reg. No. 75,096)
FINNEGAN, HENDERSON, FARABOW,
GARRETT, & DUNNER LLP
Email: cory.bell@finnegan.com

Attorneys for Patent Owner
PPC Broadband, Inc.