

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
SUR-REPLY**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ARGUMENT.....	1
A.	Petitioner’s Proposed Combinations Fail To Teach At Least The Claimed Hinged Fiber Storage Panel.....	1
B.	Petitioner Fundamentally Misunderstood How Holmberg Teaches A Mid-Span Access Location Enclosure That Was Intentionally Designed to Provide Easy Access To The Splices And Restrict Access To The Main Fiber Cable.	2
1.	It Is Undisputed That Holmberg’s Wall Box 200 Is A Mid-Span Access Location Enclosure, And Is Not A Drop Interface Box (DIB).....	3
2.	Petitioner’s Criticism Of PO’s Reliance On Holmberg’s Background Discussion Of A Prior Art Network Should Be Rejected Out Of Hand Because Petitioner Also Relied On Another Prior Art Network Disclosed In The Same Background.	5
3.	In Addition To Holmberg’s Deficiencies Regarding Mid-Span Access Location Enclosures Located On Multiple Floors Of A Building, A POSITA Would Still Understand That The Enclosures Restrict Access To The Pass-Through Fibers Of The Main Fiber Cable.	9
4.	Holmberg’s Mid-Span Access Location Enclosure Already Provides Easy Access To The Splices On The Front Side Of The Splice Tray, And According To Petitioner, The Rear Side Of The Splice Tray As Well, Eliminating Any Need For A Hinged Splice Tray Modification.....	11
5.	Petitioner’s Theory That The Splice Tray Can Be Easily Removed Because It Is Allegedly Designed To Retain Cable Slack When Installed Has No Support And Was Contradicted By Its Expert During Cross-Examination.	14

6.	Petitioner’s New And Belated Rationale For Modifying Holmberg To Hinge The Splice Tray 230 Should Be Rejected As Late And Unsupported.	19
C.	There Is No Support For Petitioner’s Belated Theory That A POSITA Would Replace Holmberg’s Splice Sleeve Holders With Blankenship’s Adapter Bracket On The Holmberg Splice Tray (Dependent Claim 2).....	21
D.	Petitioner Admitted That Its Proposed Modification To Holmberg To Add Opposing Storage Clips Would Complicate The Mid Cable Mounting Process And Result In A Less Effective Solution (Dependent Claim 10).....	25

TABLE OF AUTHORITIES

CASES

<i>Gross v. Cicero</i> , 619 F. 3d 697 (2010)	22
<i>In re Magnum Oil Tools Intern., Ltd.</i> , 829 F.3d 1364 (Fed. Cir. 2016)	22
<i>Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.</i> , 821 F.3d 1359 (Fed. Cir. 2016)	20
<i>Murthy v. Missouri</i> , 144 S. Ct. 1972 (2024)	22

RULES

37 C.F.R. § 42.23(b)	20
37 C.F.R. § 42.24	1
37 C.F.R. § 42.6(e)	1

OTHER AUTHORITIES

Consolidated Trial Practice Guide (“CTPG”) (Nov. 2019)	20, 22
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EXHIBIT LIST

EXHIBIT	DESCRIPTION
EX-1001	U.S. Patent No. 9,008,483
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-1008	U.S. Patent No. 7,346,253 to Bloodworth et al. (“Bloodworth”)
EX-1014	International Publication No. WO 2010/040256 to Castonguay et al. (“Castonguay”)
EX-1015	U.S. Patent No. 7,088,893 to Cooke et al. (“Cooke”)
EX-1023	Transcript of Deposition of Dr. Eldering 8-20-2024
EX-1031	Affidavit of Nathaniel E Frank-White. Fiber Optic Association, Inc. captures from the Internet Archive (“FOA”)
EX-1033	Supplemental Declaration of Dr. Sayfe Kiaei
EX-2001	Declaration of Dr. Charles A. Eldering in Support of Patent Owner Preliminary Response (“Eldering”) (¶¶1-91)
EX-2005	The Fiber Optic Association, Inc. Reference for Fiber Optics – Installing Fiber Optic Cable – Midspan Access (https://www.thefoa.org/tech/ref/install/midspan_access.html#) (last accessed June 5, 2024)
EX-2006	Transcript of Deposition of Dr. Sayfe Kiaei (May 23, 2024)
EX-2007	Declaration of Dr. Charles A. Eldering in Support of Patent Owner Preliminary Response (“Eldering”) (¶¶92-259)
EX-2008	Transcript of Deposition of Dr. Sayfe Kiaei (September 25, 2024)

I. INTRODUCTION

In its Response (Paper 13, “POR”), Patent Owner (“PO”) detailed how the evidence in the post-institution record confirmed that the challenged claims were not obvious. Instead of rebutting this evidence in its Reply (Paper 15), Petitioner ignored much of it and, contrary to the Board’s own IPR rules, switched gears by relying upon new and unsupported theories, which not only fail to satisfy Petitioner’s burden of establishing a *prima facie* case of obviousness, but also tellingly confirm how the Petition’s original theories lacked merit. Accordingly, the Board should find that Petitioner failed to establish that any claims are unpatentable.

II. ARGUMENT

A. Petitioner’s Proposed Combinations Fail To Teach At Least The Claimed Hinged Fiber Storage Panel.

In its Reply, Petitioner alleged that the “POR does not allege that the proposed combinations fail to teach any specific claim element.” Reply 1 n.1. Petitioner is wrong. Regarding independent claim 1, the POR expressly stated that “these asserted combinations ... cannot render obvious the ’483 Patent’s claimed ‘drop interface box comprising’ ‘*a fiber storage panel having a hinged connection*’” (claim 1(c)).¹ POR 19.

The POR explained how Petitioner admitted (and still did not dispute in its

¹ Unless otherwise noted, all emphasis is added.

Reply) that Holmberg taught an *unhinged and stationarily* fastened splice tray 230. POR 1, 20-23, 37-38, 43-44; Pet. 38 (“However, Holmberg does not expressly teach splice tray 230 having a hinged connection to main body 216.”). Similarly, the POR demonstrated (and Petitioner did not dispute in its Reply), how Battey taught *fixedly mounted* structures for *storing* excess or slack fiber optic cable. POR 59-60. Accordingly, the prior art at issue, taken alone or in combination, does not disclose or suggest the *hinged* storage panel limitations required by claim 1.

B. Petitioner Fundamentally Misunderstood How Holmberg Teaches A Mid-Span Access Location Enclosure That Was Intentionally Designed to Provide Easy Access To The Splices And Restrict Access To The Main Fiber Cable.

As explained in the POR (pp. 5-8, 21-23, 28-42) and supported by Petitioner’s own prior art references (including Holmberg (EX-1004), Battey (EX-1005), Cooke (EX-1015)) *and* PO’s expert’s (Dr. Eldering’s) testimony, mid-span access location enclosures, like those disclosed in Holmberg and Battey, were designed to separate branch (or “drop” cables) from the main fiber cable, and to restrict access to pass-through fibers of the main fiber cable that were not being cut and spliced or dropped at that particular location. Also relying upon Petitioner’s own prior art references (including Holmberg, Castonguay (EX-1014), Blankenship (EX-1006), Bloodworth (EX-1008)) *and* PO’s expert’s testimony, the POR then contrasted these mid-span access location enclosures with drop terminals (or network interfaces devices (“NIDs) or drop interface boxes (“DIBs”) as disclosed and claimed in the ’483

Patent, where drop cable fibers are terminated and connected to subscriber locations, and thus were designed to allow easy access and connection to the terminated fibers to be able to connect and disconnect new subscribers as needed. POR 8-13, 23-24, 27-28.

In its Reply, Petitioner ignored virtually all the supporting evidence cited in the POR, and instead alleged that the “distinction between Holmberg’s mid-span box and the ’483 Patent’s NID turns critically [on] Dr. Eldering’s analysis” of Holmberg. Reply 2. But in reality, Petitioner’s unsupported and hindsight-driven interpretation of Holmberg is wrong.

1. It Is Undisputed That Holmberg’s Wall Box 200 Is A Mid-Span Access Location Enclosure, And Is Not A Drop Interface Box (DIB).

To try to support its made-up Holmberg in combination Battey obviousness theory, Petitioner and its expert incorrectly asserted that Holmberg and Battey are also directed to DIBs. Pet. 19 (“Specifically, both Holmberg and the ’483 Patent are directed towards ‘a drop interface box (DIB)’”), 20 (“Specifically, both Battey and the ’483 Patent are directed towards “a drop interface box (DIB)”). In the POR (pp. 28 n.5, 29-30, 40), PO detailed how both Holmberg and Battey expressly disclosed that their enclosures were mid-span access location enclosures, ***not*** DIBs.

In light of this reality, Petitioner and its expert finally admitted in the Reply that Holmberg did not disclose a DIB, but instead disclosed a “mid-span box” or

“mid-span enclosure.” Reply 2-6, 9-10; EX-2008 124:16-126:3. In fact, Petitioner and its expert acknowledged that Holmberg expressly distinguished between “mid-span access locations 125 (or ‘break-out locations’)” and “‘drop terminals 104’ [or DIBs] that terminate fiber to subscriber locations).” Reply 6 (citing Holmberg ¶[0006]); EX-1033 ¶5 (same); EX-2008 126:4-127:11, 131:6-132:3, 136:19-138:21.

Referring to FIG. 1, the network 100 includes a plurality of *break-out locations 125 at which branch cables are separated out from main cable lines*. Branch cables are often connected to *drop terminals 104 that include connector interfaces for facilitating coupling the fibers of the branch cables to a plurality of different subscriber locations*.

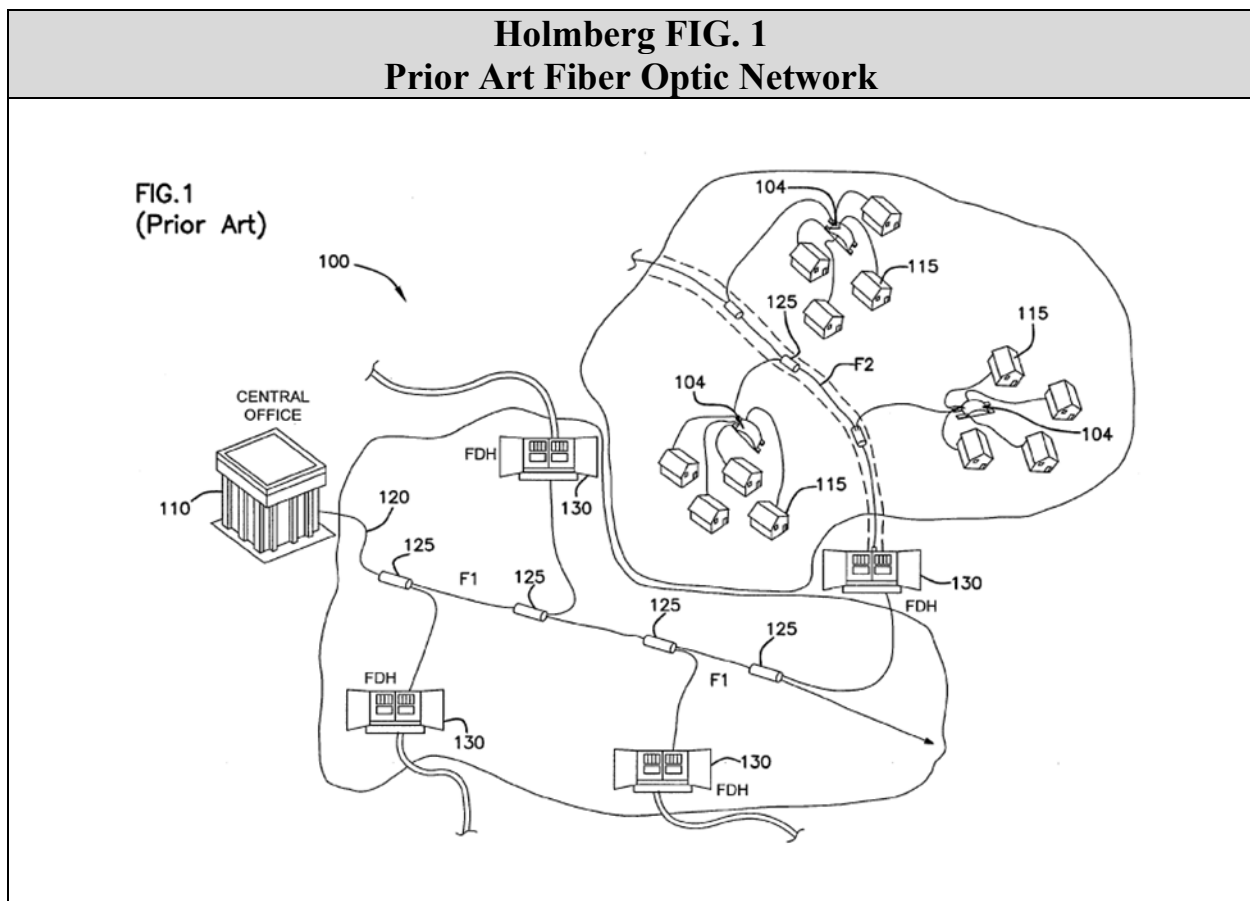
Holmberg ¶[0006].

There is also no dispute—because Petitioner never addressed it in its Reply—that Battey’s enclosure was specifically designed to restrict access to the main fiber cable in mid-span access location enclosures after the installation as discussed in the POR (pp. 40-41).

Accordingly, there is no dispute that Holmberg and Battey, taken alone and/or in combination, disclose mid-span access location enclosures that are different than the DIB disclosed and claimed in the ’483 Patent.

2. *Petitioner's Criticism Of PO's Reliance On Holmberg's Background Discussion Of A Prior Art Network Should Be Rejected Out Of Hand Because Petitioner Also Relied On Another Prior Art Network Disclosed In The Same Background.*

In the POR (pp. 8-9) and as repeated above *supra* §II.B.1, PO and its expert explained how Holmberg's Background describes a prior art network shown in FIG. 1, where break-out (or mid-span access) location enclosures 125 separate a branch or drop cable from the main fiber cable, where that branch or drop cable is then connected as an input to a drop terminal (or DIB/NID) 104 that includes connector interfaces for facilitating coupling the fibers of the branch cables to a plurality of different subscriber locations.

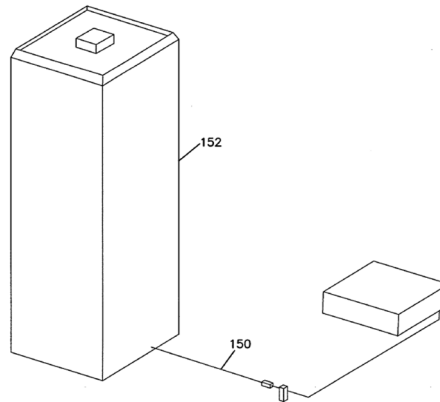


This network topology described in Holmberg supported PO's argument that a POSITA would understand that Holmberg's mid-span access location enclosure 200 would be used in conjunction with a drop terminal (or DIB/NID) to make connections to individual subscriber locations. POR 8-13, 27-28.

Unable to dispute this express disclosure in Holmberg, Petitioner attempted to explain it away claiming that the "drop terminal 104 is described by Holmberg *only* in the Background section as a component of *traditional* network topologies utilizing mid-span access enclosures." Reply 6 (emphasis in original). But Holmberg's Background and its own description of the prior art is completely relevant to a POSITA's understanding of how the Holmberg mid-span access location wall box 200 would be used (*i.e.*, with a drop terminal 104 or DIB/NID). Despite arguing that PO's reliance on the prior art network shown in Holmberg FIG. 1 should be ignored because it was prior art and discussed in the Background, ***Petitioner then relied upon yet another prior art network shown in FIG. 2 and discussed in the same Background.*** Reply 7-8 (citing Holmberg ¶[0007], FIG. 2 (described as "another prior art passive fiber optic network" (Holmberg ¶[0011])); EX-2008 132:13-136:18.

Holmberg FIG. 2
Prior Art Fiber Optic Network

FIG. 2



The description of this prior art network shown in Holmberg FIG. 2 indicated that there are “optical coupling locations” enclosed in wall boxes for optically coupling the fiber cable 150 entering the building to branch (or drop) cables. Holmberg ¶[0007].

Despite the fact that Holmberg discloses two prior art passive networks, Petitioner erroneously concluded in its Reply that “Holmberg’s Detailed Description makes clear that its embodiments do not target the Fig. 1 topology in which mid-span locations are connected to separate drop terminals before delivering service to homes.” Reply 8. To try to support this made-up theory, Petitioner merely pointed to a portion of the first paragraph of the Detailed Description that disclosed that the wall box could be “used for indoor applications such as multi-dwelling units, or commercial buildings where a plurality of subscribers is located.” Reply 8 (citing

Holmberg ¶[0034]). But that sentence simply says that the Holmberg mid-span access location enclosure could be used indoors, where many subscribers are located, and fails to teach whether or not the mid-span access location enclosure would be used with drop terminals 104 or DIBs/NIDs to connect to the subscribers, as expressly described in Holmberg’s Background. Holmberg ¶[0006]. After all, both prior art networks described in the Background expressly disclosed that they serve many subscriber locations. Holmberg ¶¶[0006] (FIG. 1 uses “drop terminals 104 that include connector interfaces for facilitating coupling the fibers of the branch cables to a plurality of different subscriber locations.”), [0007] (“each wall box having optical coupling locations corresponding to a plurality of different subscribers.”).)

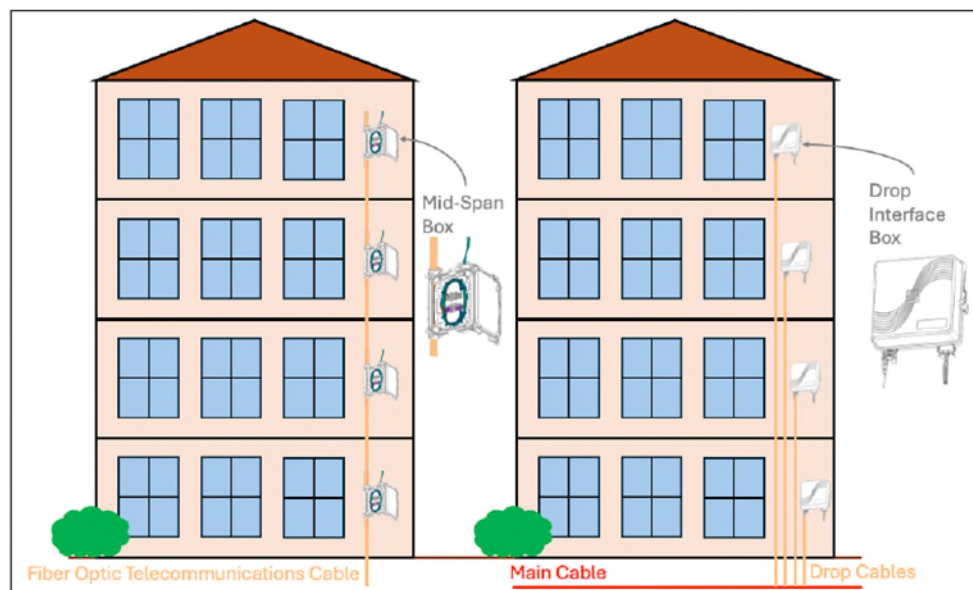
Furthermore, the remainder of that first paragraph of the Detailed Description made it clear that the Holmberg mid-span access location enclosure was not restricted to the FIG. 2 prior art network indoor application because it “can be used for either indoor *or outdoor applications* wherever it is desired *to easily mount an enclosure at a mid-span location* of a telecommunications cable. Certain embodiments can be sealed for use in below grade applications (*e.g., for use in hand holes*).” Holmberg ¶[0034].

Accordingly, there is simply no basis or support for Petitioner’s made-up new theory in the Reply (pp. 6-11), that the Holmberg mid-span access location enclosure

“directly terminates” fiber to end subscribers without an intermediate drop terminal 104 (or DIB/NID).

3. *In Addition To Holmberg’s Deficiencies Regarding Mid-Span Access Location Enclosures Located On Multiple Floors Of A Building, A POSITA Would Still Understand That The Enclosures Restrict Access To The Pass-Through Fibers Of The Main Fiber Cable.*

Petitioner and its expert spend a significant portion of the Reply (pp. 7-10) arguing that a “POSITA would have understood that, for larger multi-dwelling units, multiple ... enclosures, like Holmberg’s, could serve separate floors of a large apartment complex” and provided the following rudimentary diagram:



Regarding right-hand side of the diagram, where the (red) “main” fiber cable is accessed to separate four branch or drop cables, Petitioner and its expert chose to avoid showing that a mid-span access location enclosure, like the Holmberg wall box 200, would still need to be used to perform that separation. Holmberg ¶[0006],

FIG. 1. And on the left-hand side of the diagram, Petitioner and its expert chose to avoid highlighting that the main fiber cable is passed from floor to floor through each of the boxes 200 and, despite it not being shown in the rudimentary diagram, would then continue on to the next building in the network. But elsewhere in the Reply, Petitioner acknowledged how in the left-hand side diagram, “the ‘mid-span’ feature of Holmberg’s enclosure—its ability to terminate some fibers and pass through others—simply permits mounting multiple wall boxes on the same telecommunications cable that feeds a multi-dwelling unit.” Reply 9 (citing EX-1033 ¶¶7-8).

Accordingly, in both situations (*i.e.*, a single mid-span access location enclosure 200 located outside the building on the right-hand side of the diagram and multiple mid-span boxes 200 located on each floor of the building) the main fiber cable is being passed through the Holmberg wall box 200, such that a POSITA would understand that the wall box 200 is designed to **restrict** access to those pass-through fibers of the main fiber cable feeding downstream locations (including the next floor in a building), as explained in the POR. POR 7, 21-23, 28-42. In other words, whether there is a single wall box 200 or multiple wall boxes 200 does not change the fact that a POSITA would understand that the pass-through fibers of main fiber cable ***must be protected by restricting access*** to those fibers to avoid disrupting downstream locations. *Id.*

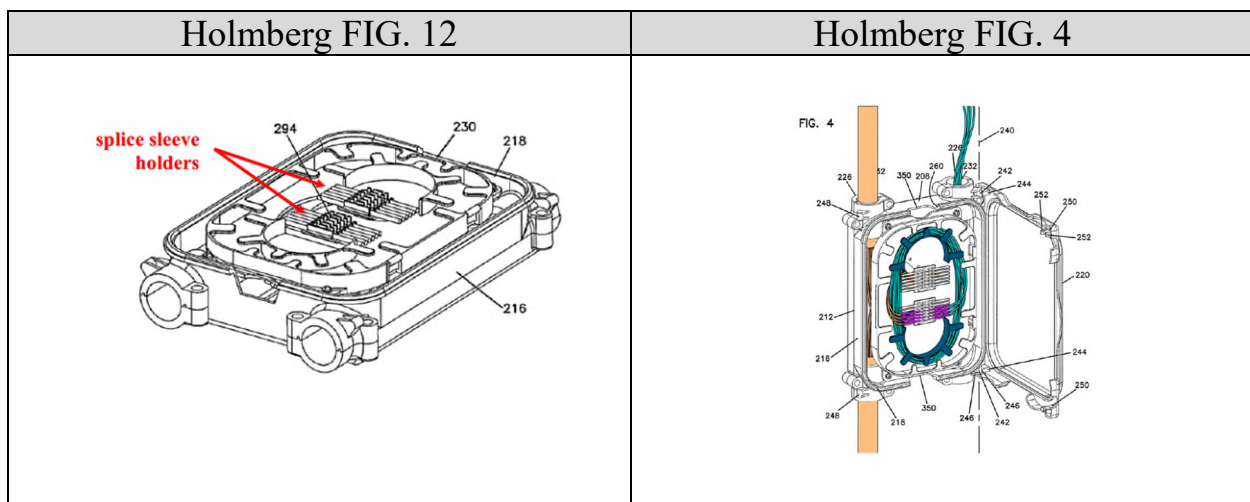
In fact, Petitioner and its expert admitted that a POSITA would understand that there is a “need to avoid damaging pass through fibers” and if access to the main fiber cable was not restricted, damage or disruption of downstream service could only be avoided by relying upon the training of the technician. Reply 13 (citing EX-1033 ¶¶28-30). Petitioner’s argument thus supports nonobviousness since Holmberg admittedly teaches how a POSITA would not be motivated to modify the Holmberg enclosure design that protects the main fiber cable from damage by human error by *restricting* access to the rear or back side of the splice tray 230, where the stored main fiber cable is located, using fasteners 276 that would have to be intentionally removed to gain access to the rear side of the splice tray. POR 37-38, 56-57.

4. *Holmberg’s Mid-Span Access Location Enclosure Already Provides Easy Access To The Splices On The Front Side Of The Splice Tray, And According To Petitioner, The Rear Side Of The Splice Tray As Well, Eliminating Any Need For A Hinged Splice Tray Modification.*

Rather than contest the undisputed need to protect the pass-through fibers of main fiber cable, Petitioner and its expert instead resorted to making up another new theory that “Holmberg has the same need as the ’483 Patent for easy access to connect and disconnect new subscribers.” Reply 2, 5-11. For example, while Petitioner (Reply 5-6, 10) relied upon PO’s expert’s testimony that “multiunit dwellings ... would require an ability to connect and disconnect new subscribers as

needed,” Dr. Eldering expressly disagreed that such ability would be provided by Holmberg’s wall box 200, instead testifying that such “ability is typically provided by the drop terminal [104] that Holmberg describes or a drop interface box such as the ‘483.’” EX-1023 49:4-11. Nevertheless, even if a “POSITA would have understood that accessing Holmberg’s splice tray 230 is required to modify end subscriber connections” as argued by Petitioner (Reply 10), there is no dispute that Holmberg’s wall box 200 already provides such access to make such modifications without the need for a hinged splice tray 230.

As explained in the POR (pp. 21-22, 37), Holmberg’s enclosure already provided convenient access to the front side of the existing fastener mounted splice tray 230, where the splice sleeve holders 294 are located and could be used to add or remove subscribers or repair splices, once the hinged cover 210 is opened, as illustrated in FIGS. 4 and 12. EX-2008 165:12-169:6 (Petitioner’s expert admitting that splice sleeve holder 294 could be used to remove subscribers).

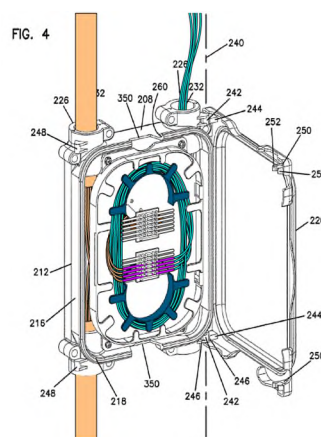
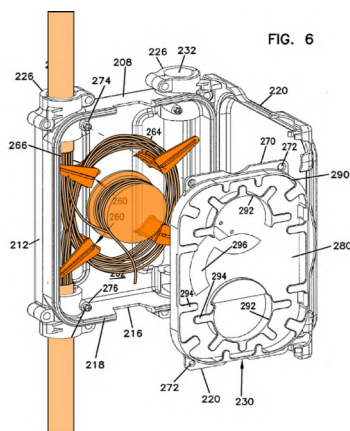


As for intentionally accessing the back or rear side of Holmberg's existing fastener mounted splice tray 230, to the extent such access was even necessary, Petitioner and its expert not only admitted, but also extensively argued, that Holmberg's existing fastener mounted splice tray 230 was easily removeable to access the rear side. Reply 12 ("A POSITA would have understood, as Dr. Eldering appears to understand..., that *fasteners 276 are just normal screws, easily removed as needed*. ... The use of *easily removable screws* is simply the chosen mechanism to hold the tray in place, accommodating *easy removal* as needed."), 26; EX-2008 177:21-178:22. While allowing intentional access to the rear of the splice tray 230 when desired, the fasteners 276 also provided the significant benefit of preventing inadvertent movement of the splice tray 230 or access to the main fiber cable. POR 23, 38, 57-58.

Accordingly, based on Petitioner's and its expert's own admissions and arguments, a POSITA would understand that Holmberg's existing fastener mounted splice tray 230 was already easily accessible without the need for a hinge. Petitioner's suggestion that a POSITA would have been motivated to provide such a hinge, which would allow for inadvertent movement of the splice tray and unrestricted access to the main fiber cable, is simply driven by hindsight and should be rejected.

5. *Petitioner's Theory That The Splice Tray Can Be Easily Removed Because It Is Allegedly Designed To Retain Cable Slack When Installed Has No Support And Was Contradicted By Its Expert During Cross-Examination.*

In the POR (pp. 52-59), PO explained that if the splice tray 230 in Holmberg were hinged, at a minimum, the spooled fibers on the front and back side of the splice tray would need to be removed to allow the splice tray 230 to swing open (e.g., from 90 degrees to 180 degrees) without straining or severing the fibers and splices.

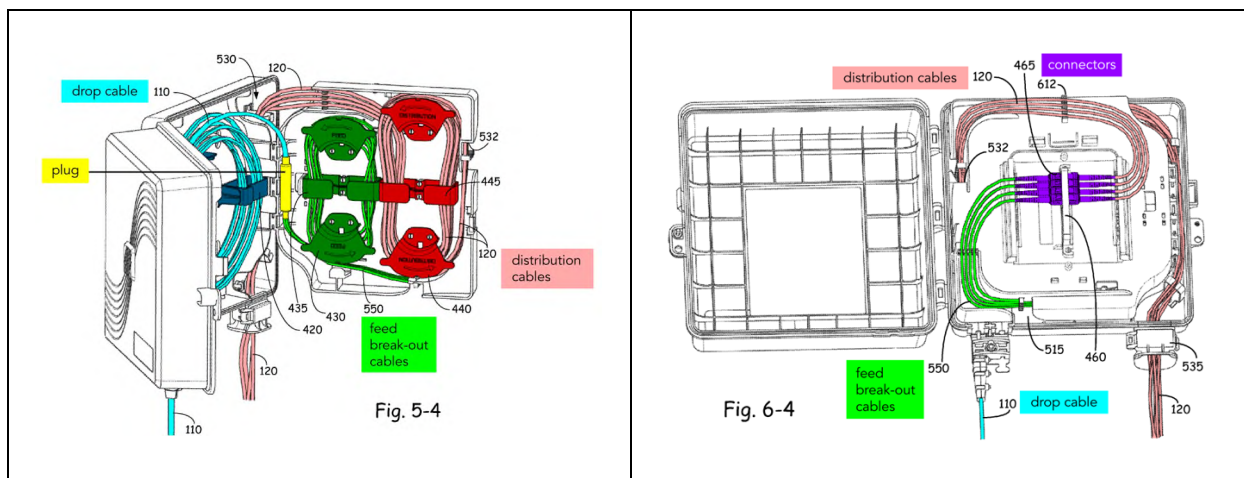


In doing so, PO detailed how the DIB disclosed in the '483 Patent included several features (e.g., cable channels located proximate and parallel to the hinge) that avoid straining or otherwise compromising the stored fibers and splices when the hinged storage panel 405 is rotated. POR 45-52. PO then contrasted the design of Holmberg's wall box 200 and splice tray 230 that did not include any such features that would allow it to be hinged and rotationally opened without detrimentally straining the fibers that are spooled and stored on the splice tray 230 and the splices.

POR 52-59.

In its Reply, Petitioner chose to disregard this undisputed evidence regarding *the nature of the prior art at issue*, and instead merely claimed that such prior art deficiencies, which admittedly run counter to Petitioner's made-up prior art modification theory, are "unclaimed." Reply 21. Tellingly, this argument confirms how Petitioner did not even attempt to satisfy its burden of establishing a *prima facie* prior art obviousness case that its made-up theory of modifying Holmberg's splice tray 230 (*i.e.*, making it hinged) would not change the basic principle of operation of Holmberg's splice tray and render it 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).

Next, Petitioner made-up another new theory that the stored fibers would not be tightly wound around the spool structures and retaining mechanisms on the front and back side of the Holmberg splice tray 230. Reply 21-26. As an initial matter, FIGS. 5-4 and 6-4 of the '483 Patent confirm that a POSITA would understand that the spooled fibers are tightly wound around the spool structures and retaining mechanisms on the front and back side of the storage panel 405.



Petitioner’s new theory appears to be based on the unsupported belief that when a technician completed splicing the fibers on the front side of the splice tray 230 using the splice sleeve holders 294, whatever slack was needed to perform the splices using a fusion splicing machine on the splice tray “*some distance* away from its final mounting location,” that slack would still exist after the splice tray 230 was mounted back on the base using the fasteners. Reply 22. But that speculative and unsupported theory (*i.e.*, the splice tray 230 might somehow be a small distance away from its final mounting location) is contradicted by the available evidence that confirms that the splicing performed by a fusion splicing machine (EX-1033 ¶39) would take place several feet from the wall box 200 and then the spliced fibers would be spooled on the splice tray 230 before mounting.

For example, Petitioner’s expert confirmed under cross-examination that, at the time that Holmberg was filed (2008), a fusion splicing machine would be heavy and mounted on a table, such that any splicing, which would require a technician to

use two hands, would not take place proximate to the Holmberg wall box 200. EX-2008 181:6-183:6, 185:22-189:11, 204:8-206:2; EX-1033 ¶39. More specifically, Petitioner's expert admitted that the splicing could be performed by a technician using up to four feet of the terminated fiber from the main fiber cable, after which the spliced fiber would then be spooled on the spool structure 298 on the rear side of the splice tray 230. EX-2008 195:3-14, 198:6-199:15. In other words, since the splicing operation would take place several feet from the Holmberg wall box 230, a POSITA would understand that the excess spliced fibers would be securely wound around the spool structures and retaining mechanisms on the front and back side of the Holmberg splice tray 230 to maintain the proper bend radius and avoid pinching and kinking of the fibers when mounting the splice tray 230, as admitted by Petitioner's expert. EX-1003 ¶¶55 ("Holmberg teaches utilizing spools to maintain a minimum bend radius for optical fiber cables stored in wall box 200.") (citing Holmberg ¶¶[0041], [0045], [0053], FIGS. 3, 6-7), ¶57 ("In particular, Holmberg ... utilize[es] spools to store cables and to provide a minimum bend radius for the cables to prevent damaging said cables."), 82 ("Holmberg teaches fiber storage walls 292 are partial spools that store excess fiber and provide bend radius protection.") (citing Holmberg ¶[0043]), 98 ("The fiber storage walls 292 have an outer curvature selected to provide bend radius protection to fibers routed about the exterior of the fiber storage walls 292." (quoting Holmberg ¶[0043]), 122 ("Indeed, a POSITA

would have known and understood the importance of protecting optical fiber cables from sharp bends or from exceeding a minimum bend radius and that sources of strain would have damaged optical fiber cables.”); EX-1033 ¶¶18 (“Take care with all splicing and termination hardware to maintain cable bend radiuses, prevent pinching or kinking of fibers and separate fibers to allow for future restoration, moves or other work.” (quoting EX-1031 78)), 48 (“As with any splice closure, care must be taken to not damage fibers or kink buffer tubes during the process and to properly store all fibers and buffer tubes to allow reentry without harming any fibers if necessary.”)

After securely winding the excess spliced fibers around the spool structures and retaining mechanisms on the front and back side of the Holmberg splice tray 230, whatever minimal slack may exist would not be sufficient to remove the splice tray 230 any reasonable distance to access the rear side of the splice tray without unspooling the fibers, and Petitioner and its expert provide no evidence to the contrary. EX-1033 ¶¶42-43. In fact, during his deposition, Petitioner’s expert admitted that removing Holmberg’s splice tray 230 without first carefully unspooling the splice fibers would “cut[] all the lines or break[] them”:

Q: Is it your opinion that Holmberg's splice tray 230 that is held by the removable screws, is it your opinion that that splice tray is easily removable?

A. Well, that's a – that depends on what you mean “the splice tray is

easily removable.” That depends on the consequences of removing that. Of course, somebody can unscrew those and ***yank it out there and cutting all the lines or breaking them.*** And physically, yes, you can yank them out and pull them out, but then ***you'll have all the lines disrupted.*** But I don't think that's what you want to do as a technician.

EX-2008 179:1-16 (objection omitted).

Accordingly, the record evidence confirms that the spooled fibers on the front and back side of the splice tray would need to be removed to allow the splice tray 230 to swing open (*e.g.*, from 90 degrees to 180 degrees) without straining or severing the fibers and splices, negating any alleged convenience of hinging the splice tray 230.

6. *Petitioner's New And Belated Rationale For Modifying Holmberg To Hinge The Splice Tray 230 Should Be Rejected As Late And Unsupported.*

In the Petition, Petitioner and its expert offered only a single rationale for modifying Holmberg's splice tray to include a hinge: “such a modification would have advantageously resulted in providing ***convenient access*** to the splice tray.” Pet. 40-44. Faced with PO's overwhelmingly contrary evidence (POR 21-44) that a POSITA would not be motivated to provide convenient access to the main fiber cable on the rear side of the splice tray 230, in its Reply, Petitioner admittedly “proceed[ed] in a ***new*** direction with a ***new*** approach as compared to the positions taken” in the Petition by interjecting in its Reply a “newly raised rationale to

combine the prior art references that was not expressed in the petition,” (Consolidated Trial Practice Guide (“CTPG”) (Nov. 2019) 74), belatedly arguing for the first time that hinging Holmberg’s splice tray 230 would allegedly provide the benefit of securing the splice tray during performance of the splicing and routing steps. Reply 15-21.

Petitioner’s untimely rationale should be dismissed for violating the Board’s rules (37 C.F.R. § 42.23(b)). *See* CTPG 74 (citing *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016) (holding that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because petitioner relied on an entirely new rationale to explain why one of skill in the art would have combined the references at issue)). Furthermore, Petitioner’s belated rationale should be rejected as unsupported by record evidence.

For example, as explained in the POR (62) ***and not disputed by Petitioner***, a POSITA would understand that removal of the splice tray 230 with the fasteners 276 would be easier than if the splice tray 230 was hinged and therefore fixed at one side, because the fully removed splice tray 230 could be maneuvered in three-dimensions to assist with unspooling the stored fibers and reducing stress on those same fibers and splices. Furthermore, as discussed *supra* §II.B.5, because the splicing operation would be performed by a technician with a fusion splicing machine located away from the Holmberg wall box 230, a POSITA would understand that it would be

advantageous to have the option of having the removed splice tray 230 and the splice sleeve holders 294 proximate the fusion splicing machine (*e.g.*, on the same table) during splicing and not hingedly attached to the wall box 230 several feet away.

Accordingly, Petitioner's made-up and belated motivation to combine rationale should also be rejected as unsupported.

C. There Is No Support For Petitioner's Belated Theory That A POSITA Would Replace Holmberg's Splice Sleeve Holders With Blankenship's Adapter Bracket On The Holmberg Splice Tray (Dependent Claim 2).

In the POR (pp. 63-65), PO explained that Petitioner's challenge to dependent claim 2 should be rejected since Petitioner ignored the claim's requirement that the adapter bracket be included on the fiber storage panel by never even proposing placing the Blankenship adapter bracket onto splice tray 230.

In its Reply, Petitioner admitted that it never affirmatively alleged in the Petition that it would have been obvious to modify Holmberg to include an adapter bracket on its splice tray 230, but instead argued that "[t]here is no suggestion in the Petition that Blankenship's adapter would be located anywhere other than the location of Holmberg's splice sleeve holder 294, which it replaces in the combination" and that "PO [does not] suggest where else this replacement might occur." Reply 28. But these new arguments blatantly ignore that fact that it is Petitioner's burden to establish that the proposed modification would render the claimed adapter bracket on the hinged storage panel obvious without requiring the

Board to scavenge through the Petition looking for suggestions to the contrary or the PO to speculate regarding other possible modifications. *See, e.g., Murthy v. Missouri*, 144 S. Ct. 1972, 1991 n.7 (2024) (“[J]udges are not like pigs, hunting for truffles buried [in the record].”) (quoting *Gross v. Cicero*, 619 F. 3d 697, 702 (2010)). Petitioner’s improper attempt to “proceed in a **new** direction with a **new** approach as compared to the positions taken” in the Petition (CTPG 74) by belatedly asserting that the adapter bracket would replace the splice sleeve holders (Reply 28) should be rejected as untimely. *In re Magnum Oil Tools Intern., Ltd.*, 829 F.3d 1364, 1380-81 (Fed. Cir. 2016) (“[T]he Board must base its decision on arguments that were advanced by a party, and to which the opposing party was given a chance to respond.”).

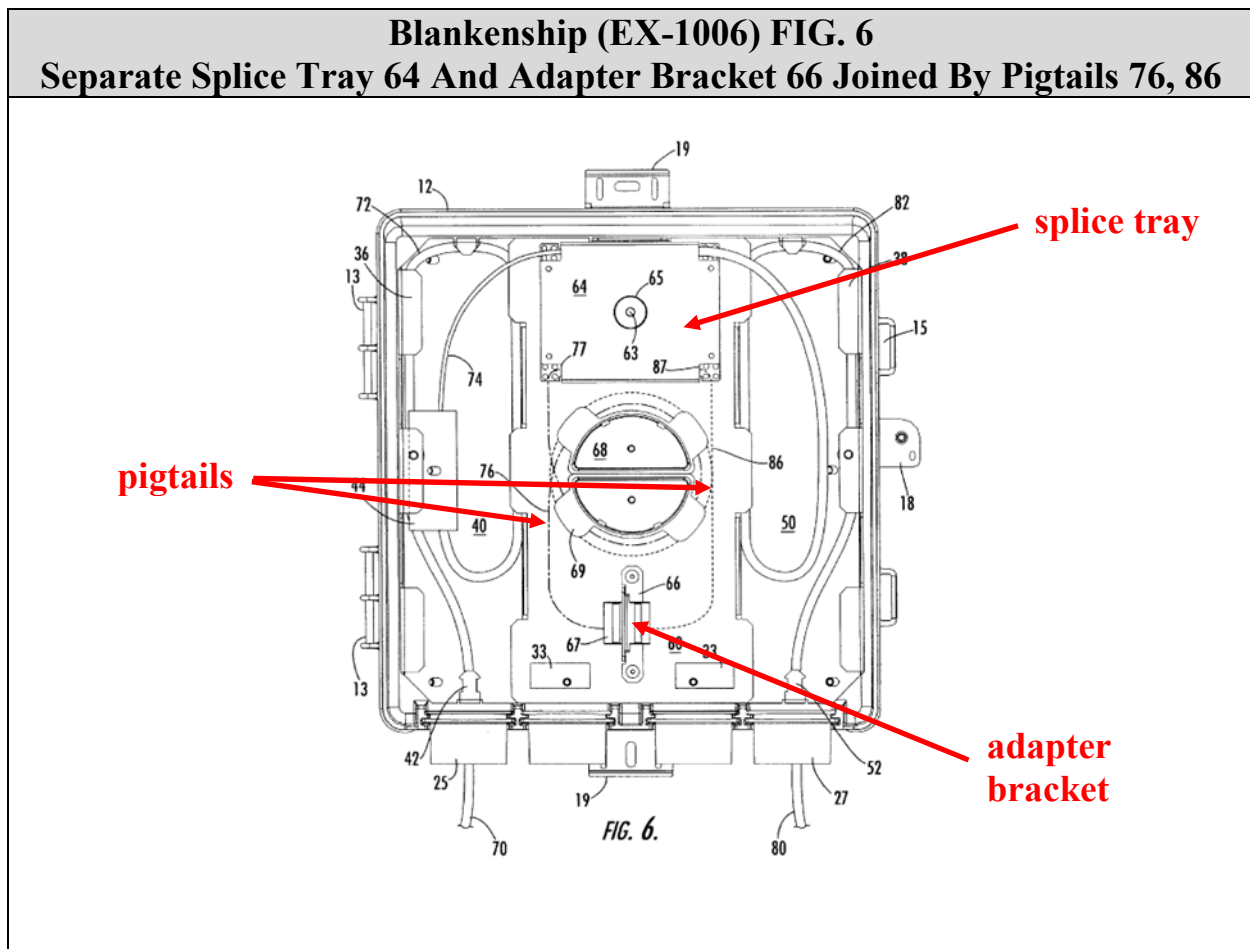
Petitioner’s belated theory should also be rejected since it is contrary to record evidence that demonstrates that a POSITA would understand that an adapter bracket would not “replace” splice sleeve holder 294, but instead would be used in conjunction with the splice sleeve holder. For example, Petitioner and its expert expressly agreed that the other embodiments in Holmberg (FIGS. 16-21) that mount adapters on the walls of the top cover (*i.e.*, not on the splice tray) teach ***that the adapters are used in conjunction with the splice sleeve holders 294*** of the splice tray 230 as shown in FIG. 12. Holmberg ¶[0056] (“FIGS. 16-18 illustrate another wall box 500 having features in accordance with the principles of the present

disclosure. The wall box 500 includes an enclosure 502 having the same main body 216, cable covers 226 and splice tray 230 as a wall box 200 of FIGS. 3-12.”); Reply 29 (“Holmberg’s external cover-mounted adapters ...are in fact used in conjunction with splice tray 230.”); EX-1033 ¶49 (“The adapters in Holmberg’s other embodiments (*e.g.*, in Figs. 16-18) attach to the outside of the enclosure, connecting external connectorized fibers to the internal fibers. In these embodiments, the connections secured on splice tray 230 are still required, and Holmberg is clear that splice tray 230 remains a critical component of these alternative embodiments.”).

In Holmberg, each of the fiber optic adapters 514 interface with the connectorized end of a pigtail while the other end of the pigtail is spliced to the main fiber cable using the splice sleeve holders 294 of the splice tray 230. Holmberg ¶¶[0056] (“In use of the wall box 500, fibers from a mid-span access location of a cable passed through the wall box 500 are spliced to a plurality of fiber optic pigtails having connectorized ends. The connectorized ends of the pigtails are preferably inserted within the inner ports 518 of the fiber optic adapters 514.”), [0064] (“After installation of the fiber optic adapters 514, ... the pigtail optical fibers 528 [are] spliced to corresponding fibers of the main cable to be inserted into the inner ports 518.”), FIGS. 16-19.

Furthermore, like Holmberg, the adapters 67 (and adapter bracket 66) in Blankenship (EX-1006) are used in conjunction with pigtails having a connectorized

end on one end and a spliced connection on the other end, necessitating both the adapter bracket 66 and a separate connection at the splice tray 64. Blankenship 6:57-7:16 (“As shown, connection tray 64 is a splice tray and the optical fibers are joined to the first connectors 76 inside the splice tray by well known mechanical splice or fusion splice techniques. The first connectors 76 ... are routed to a corresponding adapter 67 on adapter bracket 66. ... Preferably, however, the first connector 76 is a pigtail type connector having an optical fiber for splicing to an optical fiber of the feeder cable 70 at one end and a ‘plug-and-play’ duplex SC style connector at the other end.”), 7:44-67 FIGS. 5-6.

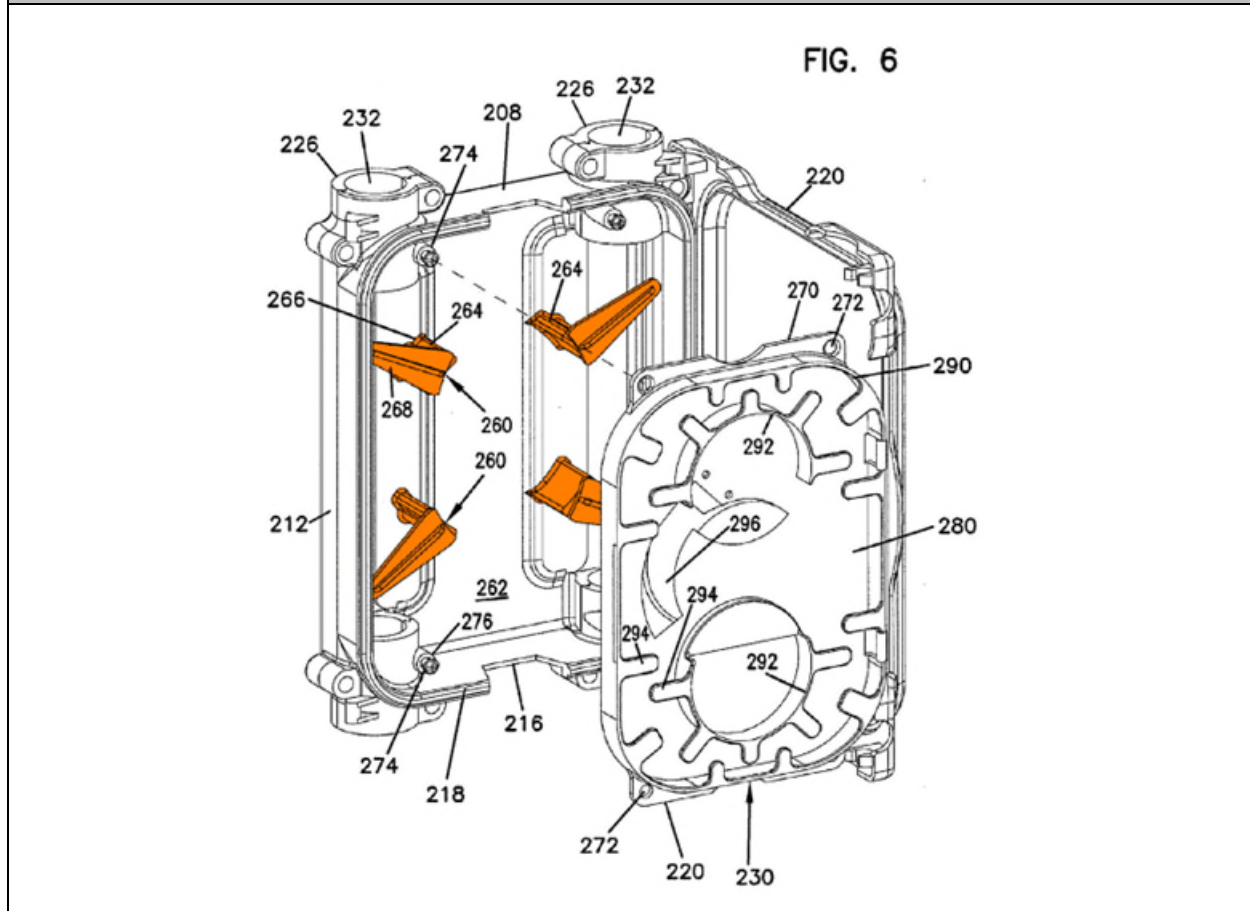


Accordingly, a POSITA would understand that, even if an adapter bracket were used in Holmberg as proposed by Petitioner, that adapter bracket would **not** replace the splice sleeve holders 294 on the splice tray 230, which would still be needed to interface with the fibers of the main fiber cable. Because there is simply no support for Petitioner's belated and hindsight-driven proposal to "replace" the splice sleeve holders 294 with an adapter bracket, its challenge to dependent claim 2 must be rejected.

D. Petitioner Admitted That Its Proposed Modification To Holmberg To Add Opposing Storage Clips Would Complicate The Mid Cable Mounting Process And Result In A Less Effective Solution (Dependent Claim 10).

In the POR (pp. 71-79), PO explained how it was undisputed that Holmberg already disclosed cable management members 260 including bend radius limiters 264 and cable retention members 268 within main body 216 to retain a loop of stripped cable and that replacing or supplementing those members 260 with Cowen's (EX-1007) clips would unnecessarily complicate the mid-span cable mounting process and result in a less effective solution.

Holmberg FIG. 6
Bend Radius Limiters 264 And Cable Retention Member 268



Unable to dispute these deficiencies, Petitioner instead argued in its Reply that a POSITA would have been motivated to replace or supplement Holmberg's cable retention members 260 with Cowen's clips 292, to improve security, particularly during installation that results from Cowen's full retention of the fibers. Reply 29. But neither Petitioner, nor its expert, provided any evidence that there were any problems with the security already provided by Holmberg's existing cable management members 260, including its cable retention members 268 that retain the stripped main fiber cable.

Instead, Petitioner embarked on an irrelevant discussion of Holmberg's use of fiber retention fingers 292 (*i.e.*, an open and completely different design than the proposed fully encircling clips used in Cowen) located on a different part of the wall box 200 (*i.e.*, on the front side of the splice tray 230 and not on the main body 216). Reply 30-31. But Holmberg's choice to use an open and allegedly more restrictive design for retaining a different cable (*i.e.*, the cut spliced fibers, rather than the uncut main fiber cable) provides no support for Petitioner's argument. In fact, that Holmberg employed the open design of the cable management members 260 to retain the stripped main fiber cable, rather than the fiber retention fingers 292, is evidence that a POSITA would not be motivated to modify the existing cable management members 260 to be more restrictive especially in view of the complications that would result from such a modification.

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Respectfully submitted,

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CERTIFICATION OF COMPLIANCE WITH WORD COUNT

The undersigned hereby certifies that the foregoing Patent Owner Sur-Reply complies with the requirements of 37 C.F.R. § 42.24 and contains less than 5,600 words (5,576 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.

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing **PATENT OWNER SUR-REPLY** was served pursuant to 37 C.F.R. § 42.6(e) via electronic mail on October 16, 2024, on the following:

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