

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BELDEN INC. and PPC BROADBAND, INC.

Petitioner,

v.

COMMSCOPE TECHNOLOGIES LLC

Patent Owner.

IPR2025-01119
Patent 10,996,417

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Exhibit Description
2001	U.S. Patent Publication No. 2006/0153516 (“Napiorkowski”)
2002	U.S. Patent No. 5,987,207 (“Hoke”)
2003	U.S. Patent No. 6,721,484 (“Blankenship”)
2004	U.S. Patent No. 7,493,003 (“Kowalczyk”)
2005	U.S. Patent No. 7,715,679, (“Kowalczyk ’679”)

I. INTRODUCTION

There are three significant flaws in the Petition.

First, the Petition's theory for identifying a motivation to combine the references is clearly flawed. Petitioner misrepresents the teaching of the Hogan reference. Petitioner says that the base reference Hogan teaches that the cable is "payable" from a spool inside the enclosure and that there would be a motivation to improve upon this teaching with a rotatable reel. But there is no such teaching in Hogan. Hogan never teaches or recognizes the need to make the cable payable in the first instance. Hogan teaches the opposite. Hogan teaches that the enclosure is for "receiving" fibers that are "admitted *into*" Hogan's enclosure, not *paid out* from the enclosure. Thus, the motivation to combine the references set forth in the Petition arises merely out of an impermissible use of hindsight, and is not supported by the references.

Second, the proposed combination of references fails to show an element required by both independent claims. Both claims require a specific type of enclosure, a "wall mountable" enclosure. The Petition points to Hogan, but Hogan never describes its enclosure as being wall mountable.

Third, the combination of Hogan and Walters fails to teach any claim elements that were not already considered by the Examiner.

Petitioner has not demonstrated a reasonable likelihood that its challenge

will succeed. Patent Owner respectfully requests that the Petition be denied.

II. THE '417 PATENT AND PROSECUTION HISTORY

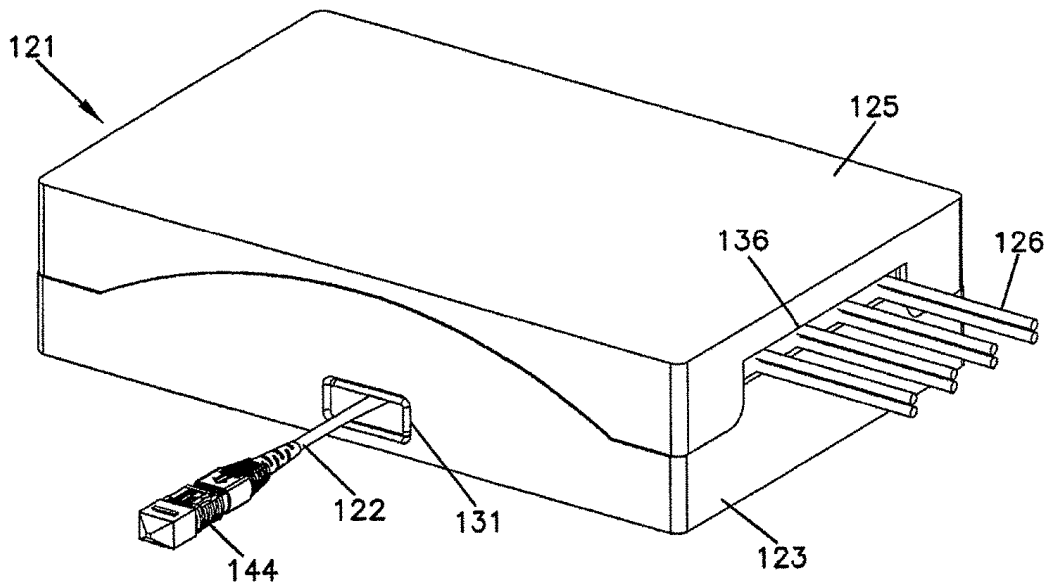
A. The '417 Patent

The '417 Patent (EX1001) issued on May 4, 2021. The '417 Patent protects CommScope's invention of an innovative fiber optic enclosure that is useful in providing subscriber access in, *e.g.* multiple dwelling units, apartments, condominiums and businesses. The enclosure connects the subscribers to the fiber optic network via subscriber cables connected to a network hub. However, the length of subscriber cable needed between the enclosure and the network hub varies depending upon the location of the enclosure with respect to the network hub, which can change from building to building. Accordingly, CommScope's invention relates to a fiber optic enclosure that can effectively manage varying lengths of subscriber cable through the use of a rotatable spool within the enclosure. EX1001, 1:38-62.

The '417 Patent describes an embodiment of the invention with reference to FIGs. 8-18. The fiber optic enclosure 121 includes a housing 123 formed with first and second sidewalls that extend outwardly from a base to define an interior region. *Id.* 6:37-45, FIG. 12 (reproduced below). The enclosure also includes a cover 125 that prevents access to the interior region when closed. *Id.* A first port 131 is located in one of the sidewalls, to allow the first subscriber cable 122 to

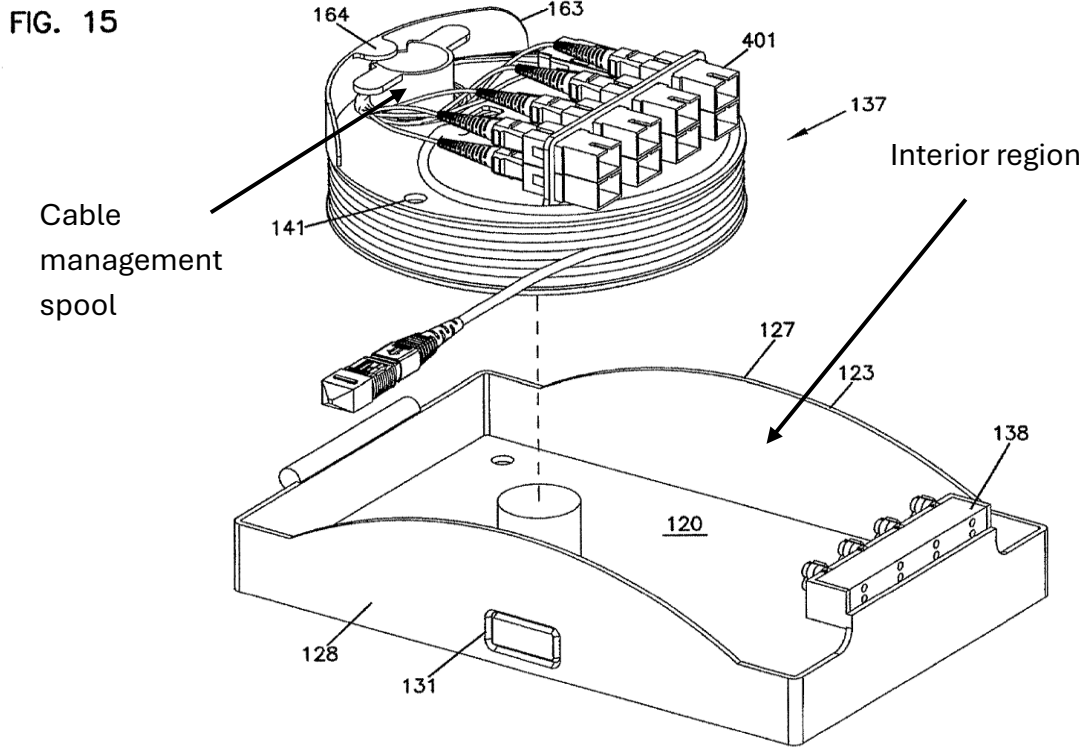
enter/exit the enclosure. *Id.* 6:46-50. Second subscriber cables 126 enter/exit the enclosure via another port 136. *Id.* FIG. 12.

FIG. 12



EX1001, FIG. 12

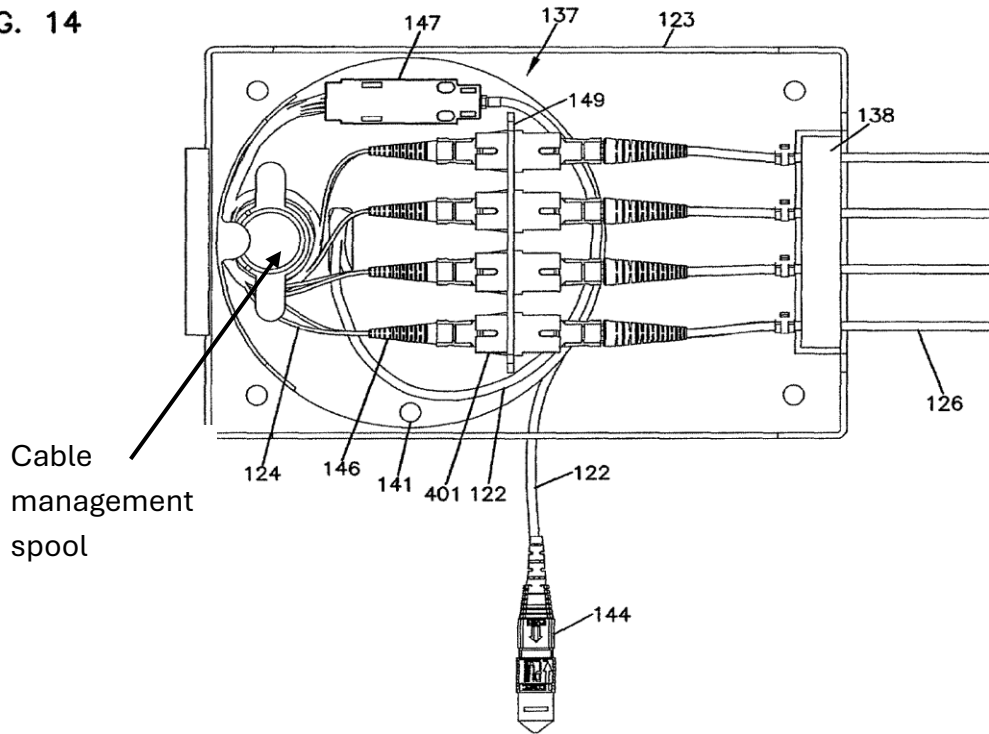
A rotatable cable spool 137 is located within the interior region of the enclosure. *Id.*, 6:53-62, FIG. 15. The first subscriber cable 122 is coiled around the spool. *Id.* The first subscriber cable can be selectively paid out by rotating the cable spool and, after paying out desired length, the cable spool can be fixed in position relative to the enclosure using a pin in a pin opening 141. *Id.* 6:63 – 7:3, FIG. 15.



EX1001, FIG. 15

The end of the first subscriber cable contained in the enclosure is connected to a fanout 147, where the cable is broken out into individual fibers 124 having connectorized ends 146. *Id.* 7:4-13, FIG. 14. An adapter plate 149 is adapted to receive connector adapters 401 so that a user can connect the individual fibers 124 to respective second subscriber cables 126. *Id.* 7:47-60, FIG. 14.

FIG. 14



EX1001, FIG. 14

A cable management spool is provided on the cable spool to manage the individual fibers 124.

B. The Prosecution History

The application leading to the '417 Patent, application number 15/875,564 (“the '564 Application”), was subject to extensive examination by the Examiner. The Walters reference—which Petitioner uses as the secondary reference for the Petition’s Grounds 1 and 2—was thoroughly considered, and CommScope specifically amended the claims to distinguish over it.

The '564 Application was filed on January 19, 2018, as a continuation of several other applications, with the earliest non-provisional application, Serial No. 12/182,705 (“’705 application”), having a filing date of July 30, 2008. The ’705 application claimed priority from two provisional applications, the earliest (Serial No. 60/954,215) having a filing date of August 6, 2007. EX1001.

Following a first action allowance on May 9, 2019 (EX1005 at 226), CommScope filed a Request for Continued Examination (RCE) on August 5, 2019, along with an Information Disclosure Statement (IDS). *Id.* at 186-187, 189-183. The Examiner issued a non-final action on November 26, 2019, in which claims 1-12 were rejected as being obvious over the combination of U.S. Patent No. 6,220,413 (“Walters,” EX1003) and U.S. Patent No. 6,933,441 (“Fuller,” EX1011).¹ EX1005 at 159-171. The Examiner asserted that Walters showed all of the claim elements except for the cover being movable in order to selectively cover and uncover the opening in the housing, but that Fuller taught a rectangular box enclosure with a cover that can be slid back to expose the internal mechanism and

¹ The same claims were also rejected as obvious over U.S. Patent No. 7,715,679 (“Kowalczyk ’679”) (Ex-2005). CommScope argued throughout prosecution that this reference was not applicable prior art and did not make any amendments to distinguish over Kowalczyk ’679. The rejection over Kowalczyk ’679 was withdrawn when the Notice of Allowance was issued on February 4, 2021. EX1005, 51. Claims 13-20 were allowed in the original November 26, 2019 office action.

can be secured to the enclosure to permit to open [sic] the interior of the enclosure.” *Id.* at 169.

CommScope filed a response on March 26, 2020, adding new claims 21-33,² and making the following amendments to claim 1.

1. (Currently Amended) A fiber optic enclosure comprising:
 - a housing including a cover at a front of the housing, the cover being movable between an open position and a closed position;
 - the housing defining a cable opening for routing a first-subscriber cable into the housing;
 - a spool mountable to the housing and positionable within the housing;
 - a second fiber optic cable spooled about a spooling portion of the spool, the second fiber optic cable including at least one optical fiber;
 - a fiber optic connector coupled to the at least one optical fiber of the second fiber optic cable;
 - a fiber optic adapter including a first connector port for receiving the fiber optic connector and also including an opposite second connector port;
 - the second fiber optic cable being payable from the spool while the spool is mounted to the housing, wherein the spool rotates relative to the housing about an axis of rotation as the second fiber optic cable is paid out from the spool, and wherein the fiber optic connector rotates in concert with the spool as the fiber optic cable is paid out from the spool; and
 - wherein access for plugging a connectorized end of the ~~subscriber~~ first cable into the second connector port of the fiber optic adapter is: a) available from the front of the housing when the cover is in the open position; and b) not available from the front of the housing when the cover is in the closed position.

EX1005 at 136.

CommScope argued that the rejection under Walters and Fuller failed, *inter alia*, because the combination of references failed to disclose or suggest that

² These claims ultimately issued as claims 21-33.

“access for plugging a connectorized end of the first cable into the second connector port of the fiber optic adapter is: a) available from the front of the housing when the cover is in the open position; and b) not available from the front of the housing when the cover is in the closed position in combination with the other features recited in amended claim 1.” *Id.* at 145.

In a Final Office Action issued on July 10, 2020, the Examiner re-asserted the combination of Walters and Fuller, stating that all claim limitations were met in the previous action. *Id.* at 120.

CommScope filed another RCE on October 12, 2020, that included the following amendment to claim 1.

1. (Currently Amended) A fiber optic enclosure comprising:
 - a housing-wall mountable enclosure arrangement including a base, sidewalls that project forwardly from the base, and a cover at a front of the housing, the sidewalls defining an access opening and defining a cable opening separate from the access opening, the cover being movable pivotal relative to the base about a pivot axis between an open position providing access to the access opening and a closed position covering the access opening, the cover contacting the sidewalls when disposed in the closed position;
 - the housing defining a cable opening for routing a first cable into the housing;
 - a spool mountable to the housing and positionable within the housing;
 - a second fiber optic cable spooled about a spooling portion of the spool, the second fiber optic cable including at least one optical fiber;
 - a fiber optic connector coupled to the at least one optical fiber of the second fiber optic cable;
 - a fiber optic adapter spaced inwardly from the sidewalls, the fiber optic adapter including a first connector port for receiving the fiber optic connector and also including an opposite second connector port;
 - the second fiber optic cable being payable from the spool while the spool is mounted to the housing, wherein the spool rotates relative to the housing about an axis of rotation as the second fiber optic cable is paid out from the spool, and wherein the fiber optic connector rotates in concert with the spool as the fiber optic cable is paid out from the spool; and
 - wherein access for plugging a connectorized end of the first cable into the second connector port of the fiber optic adapter while the fiber optic adapter is spaced inwardly from the sidewalls is: a) available from the front of the housing when the cover is in the open position; and b) not available from the front of the housing when the cover is in the closed position.

EX1005 at 91.

In its response, CommScope stated, *inter alia*, that the combination of Walters and Fuller failed to “disclose or suggest a wall mountable enclosure arrangement in combination with the other features recited in amended claim 1. The combination of Walters and Fuller also does not disclose or suggest access for

plugging a connectorized end of the first cable into the second connector port of the fiber optic adapter while the fiber optic adapter is spaced inwardly from the sidewalls is: a) available from the front of the housing when the cover is in the open position; and b) not available from the front of the housing when the cover is in the closed position.” CommScope further stated that both Walters and Fuller were rack-mounted housings and there was no reason provided in either reference to modify the reels for a wall mountable enclosure arrangement, and that both Walters and Fuller showed adapters mounted at sidewalls, rather than being spaced inwardly from a sidewall. *Id.* at 88-89.

Following this amendment, the Examiner issued a Notice of Allowance on February 4, 2021. *Id.* at 51. CommScope filed another RCE on March 3, 2021, adding new claims 34-38,³ with the following amendments to claim 1, stating that the amendments were editorial revisions. *Id.* at 44.

³ These claims ultimately issued as claims 34-38.

1. (Currently Amended) A fiber optic enclosure comprising:
 - a wall mountable enclosure arrangement including a base, sidewalls that project forwardly from the base, and a cover, front portions of the sidewalls defining a front access opening ~~and defining a cable opening separate from the access opening~~, the cover being pivotal relative to the base about a pivot axis between an open position providing access to the front access opening and a closed position covering the front access opening, the cover contacting the front portions of the sidewalls when disposed in the closed position;
 - the housing enclosure arrangement defining a first cable opening for routing a first cable into the enclosure arrangement housing;
 - at least one of the side walls defining a second cable opening;
 - a spool mountable to the enclosure arrangement housing and positionable within the enclosure arrangement, the spool defining a spooling portion ~~housing~~;
 - a second fiber optic cable spooled about ~~a~~ the spooling portion of the spool, the second fiber optic cable including at least one optical fiber;
 - a fiber optic connector coupled to the at least one optical fiber of the second fiber optic cable;
 - a fiber optic adapter spaced inwardly from the sidewalls, the fiber optic adapter including a first connector port for receiving the fiber optic connector and also including an opposite second connector port;
 - the second fiber optic cable being payable from the spool through the second cable opening while the spool is mounted to the enclosure arrangement housing, wherein the spool rotates relative to the enclosure arrangement housing about an axis of rotation as the second fiber optic cable is paid out from the spool, and wherein the fiber optic connector rotates in concert with the spool as the second fiber optic cable is paid out from the spool; and
 - wherein access for plugging a connectorized end of the first cable into the second connector port of the fiber optic adapter while the fiber optic adapter is spaced inwardly from the sidewalls is: a) available from the front of the housing enclosure arrangement when the cover is in the open position; and b) not available from the front of the housing enclosure arrangement when the cover is in the closed position.

EX1005 at 37-38.

Following this amendment, the Examiner issued another Notice of Allowance, on March 22, 2021. *Id.* at 8. The '417 Patent issued on May 4, 2021.

III. THE CHALLENGED CLAIMS AND THE PETITION GROUNDS

The Petition challenges claims 1-7, 9-12, and 21-38 of the '417 Patent. Claims 1 and 22 are independent claims; claims 2-7, 9-12, 21, and 34-37 depend from claim 1, while claims 23-33 and 38 depend from claim 22. The Petitioner does not challenge claims 13-20.

Both of independent claims 1 and 22 require “a *wall mountable enclosure* arrangement including a base, *sidewalls that project forwardly from the base*, and a cover, front portions of the sidewalls defining *a front access opening*.” EX1001, 8:17-20 (cl. 1), 10:42-45, (emphasis added).

The Petition challenges each independent claim 1 and 22 on a single ground:

- Ground 1: “Obvious over *Hogan* and *Walters*.”

Petition, 2⁴.

IV. PETITIONER'S GROUND 1 REFERENCES

A. Hogan (EX1002)

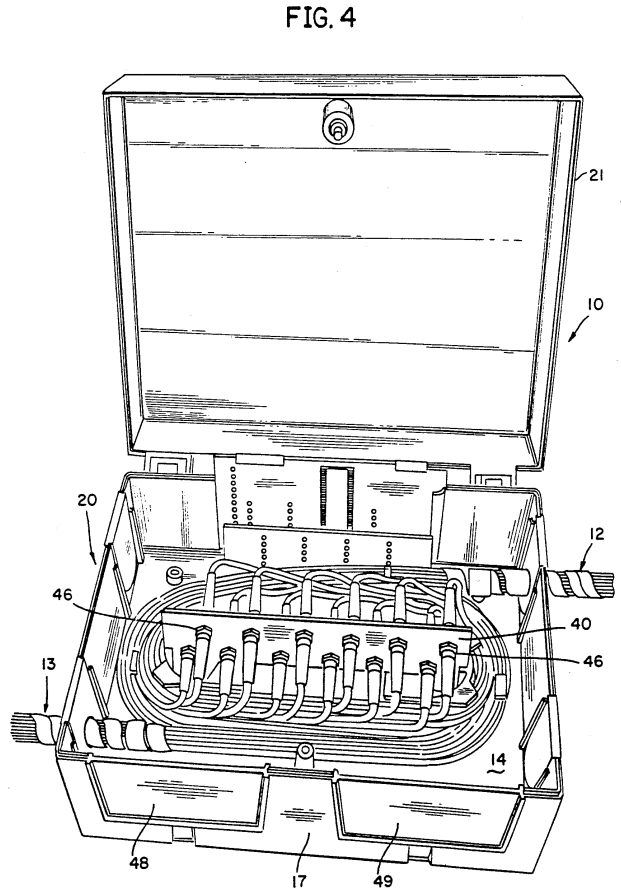
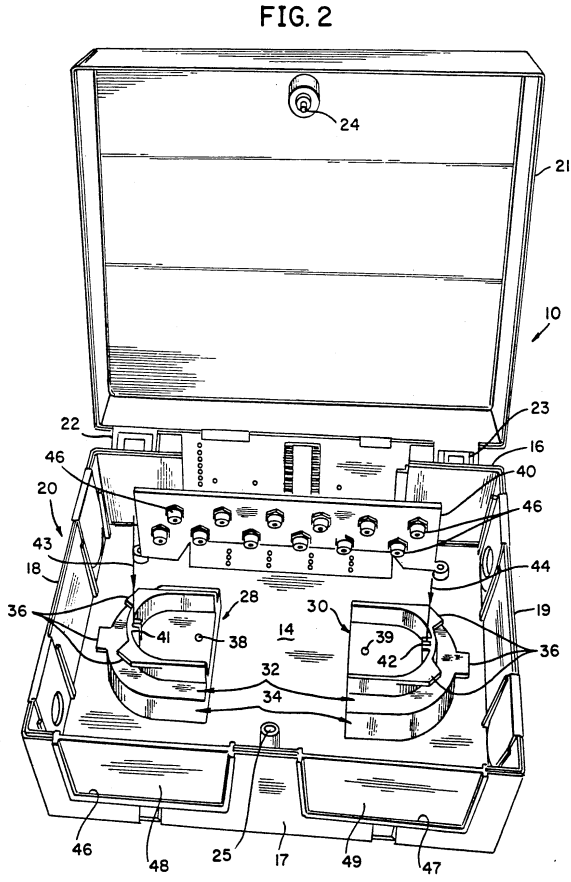
Hogan issued on April 28, 1992. It describes an optical fiber interconnect cabinet for interconnecting incoming telephone company optical fibers with

⁴ Ground 2 addresses dependent claims and therefore does not address the failure of Ground 1 to show all the limitations of the independent claims.

outgoing customer optical fibers either by adapters mounted on an internal bulkhead, or by adaptors mounted on an external cabinet wall. EX1002, Abstract.

The cabinet 10 includes “a base 14, a pair of opposed side walls 16 and 17, and a pair of opposed end walls 18 and 19. The side walls 16 and 17 and end walls 18 and 19 collectively comprise a wall indicated by general numerical designation 20 which circumscribes the base 14 and extends **upwardly** therefrom. The cabinet 10 may further include a cover 21 mounted pivotally to the side wall 16 by a pair of hinges 22 and 23. *Id.* 2:59-66 (emphasis added), FIGs. 2, 4.

As shown in FIG. 4, the incoming telephone company optical fibers 12 and the outgoing customer optical fibers 13 are shown wrapped around the radiuses 28 and 30 and respectively stored in the upper and lower storage levels 32 and 34. *Id.* 3:17-21.



EX1002, FIGs 2 and 4.

B. Walters (EX1003)

Walters issued on April 24, 2001 and, as discussed above, was the primary reference for the obviousness rejections during prosecution of the '417 Patent. Walters discloses a rack-mounted cable storage device that has a reel rotatably mounted in a frame. The reel has a hub that rotates with the reel. A connector panel has a plurality of connectors for interconnecting with an end of the cable on the reel. EX1003, Abstract.

Walters' cable storing apparatus includes a reel 11 that has a hub 13 that is a flat disc. *Id.* 2:6-7. The reel 11 "is rotatably mounted in a housing or frame 27. The frame 27 is rectangular, having a baseplate 29 and four sidewalls 31. The baseplate 29 is located above a bottom 30 and is a stationary part of frame 27. Alternately, baseplate 29 could be the bottom of frame 27. A cover 33 locates over the top of frame 27 parallel to baseplate 29. One of the sidewalls 31 has an access port 35 for passage of the fiber optic cable 23." *Id.* 2:23-31, FIGs. 1, 5.

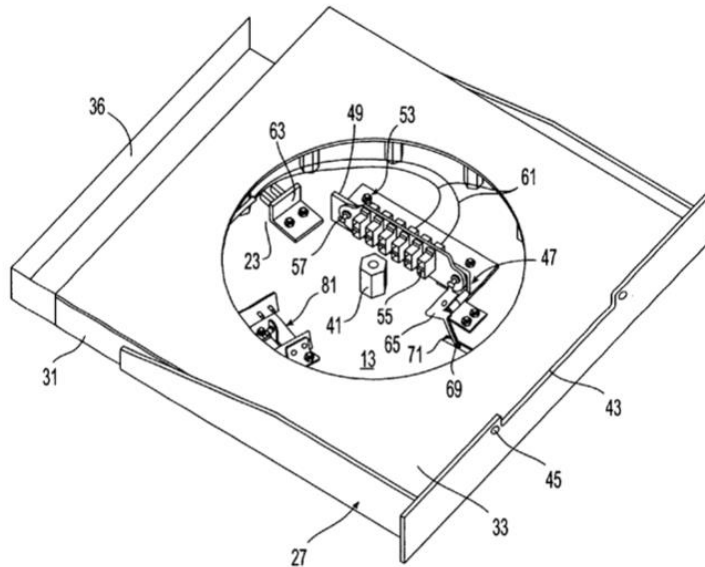


Fig. 5

EX1003, FIG. 5

V. ARGUMENT

A. The Petition Fails To Provide Adequate Motivation To Combine The Ground 1 References (Hogan and Walters)

The invention of the fiber optic enclosure defined in independent claims 1

and 22 was developed from a realization that the provision of subscriber access points in multi-unit premises, such as apartment buildings, condominiums, and businesses, would benefit from a fiber optic enclosure that could effectively manage and pay out varying lengths of subscriber cable. EX1001, 1:39-50. As a result of this realization, patentee invented a fiber optic enclosure that included a rotatable spool that could pay out a subscriber cable to a desired length based on the location of the enclosure, without the need for splicing a fiber *in situ* at the premises to obtain the correct length of fiber.

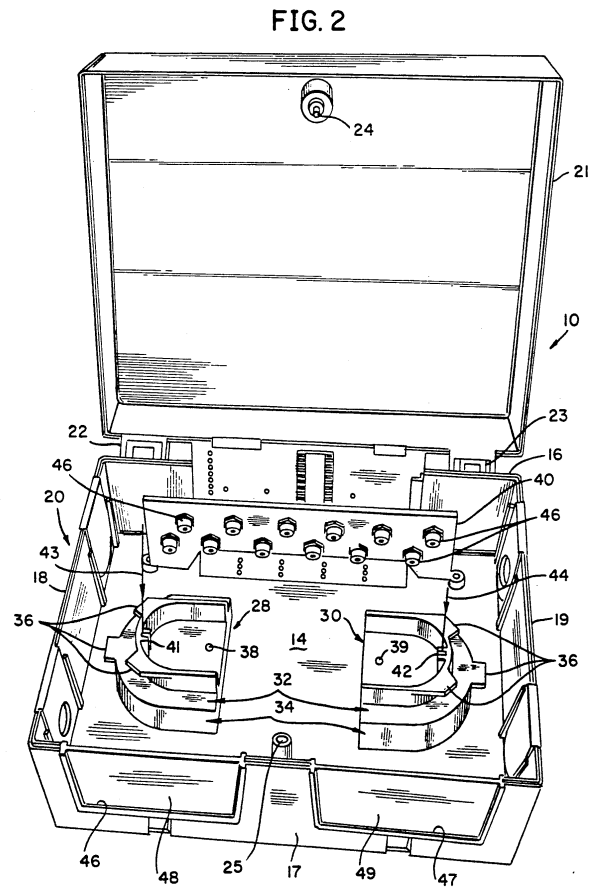
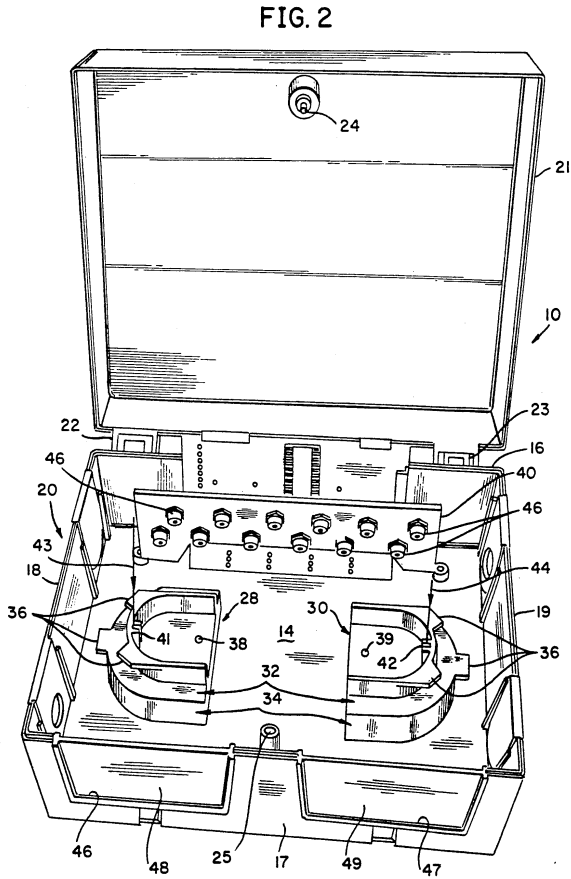
Fiber optic enclosures for use in multi-unit premises were known for years prior to CommScope's invention, but none of them included a rotating fiber spool that could solve the problem of requiring different lengths of subscriber fiber in a simple and effective manner. For example, Hogan's⁵ cabinet includes "a pair of opposed, spaced apart, stepped multi-level radiuses indicated respectively by general numerical designation 28 and 30."⁶ EX1002, 3:12-14, FIG. 2. Hogan states that, as shown in FIG. 4, "the incoming telephone company optical fibers 12 and the outgoing customer optical fibers 13 are shown wrapped around the radiuses 28 and 30 and stored in the upper and lower storage levels 32 and 34. EX1002, 3:17-21, FIG. 4. FIG. 4 shows the telephone company optical fibers 12

⁵ Hogan issued in April, 1992.

⁶ Petitioner equates these "stepped, multi-level radiuses" to the "spool" of claims 1 and 22.

and the customer optical fibers 13 the entering the cabinet and making no more than about $1\frac{1}{4}$ turns⁷ around the radiuses 28, 30 before their ends terminate at the adapters 45 on the internal bulkhead 40. Thus Hogan's radiuses only provide storage for the short length of fiber found within the cabinet, and do not provide storage for any excess fiber, and certainly not for a longer length of fiber that could be paid out to solve the problem identified above.

⁷ See, e.g., Petitioner's rendering of Hogan's FIG. 4 on p. 43 of the petition.



EX1002, FIGs 2 and 4.

Other prior art references that were considered by the Examiner and that teach enclosures used in multi-subscriber premises fail to teach or suggest the use of a rotating spool to pay out fiber. For example, Napiorkowski (Ex-2001) further teaches that the network interface device (NID) has a second base 62 that contains an inner compartment 70 for storing drop cable slack. Ex-2001 ¶[0039], FIG. 2. The base contains retaining members 72 retaining the drop cable slack in a desired configuration, for example a plurality of stacked coils of the drop cable slack.

Retaining members 72 may be removable to facilitate coiling or otherwise positioning the drop cable slack within the inner compartment. *Id.*

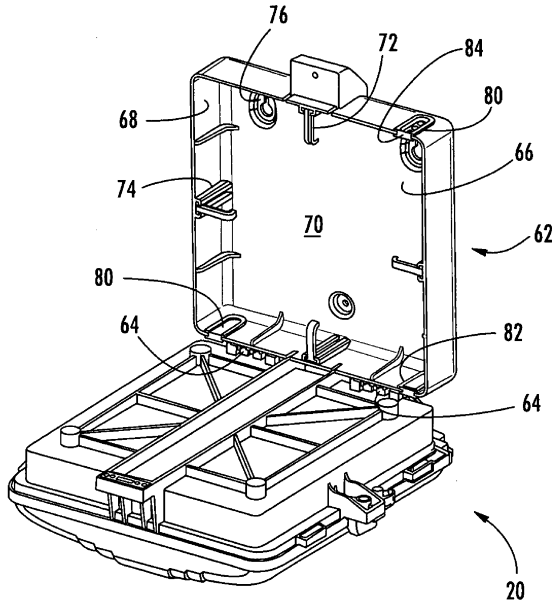
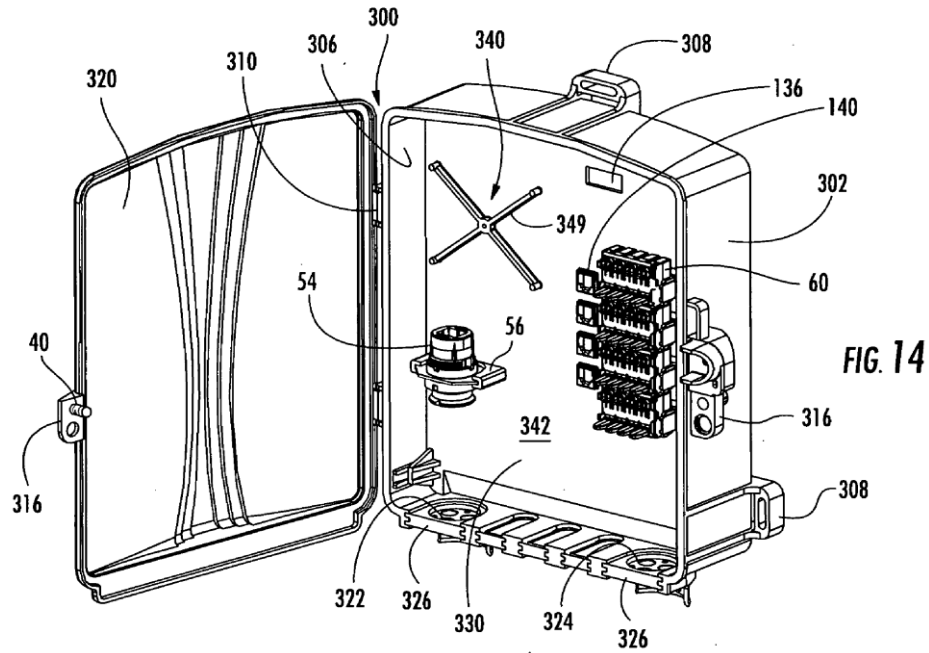


FIG. 2

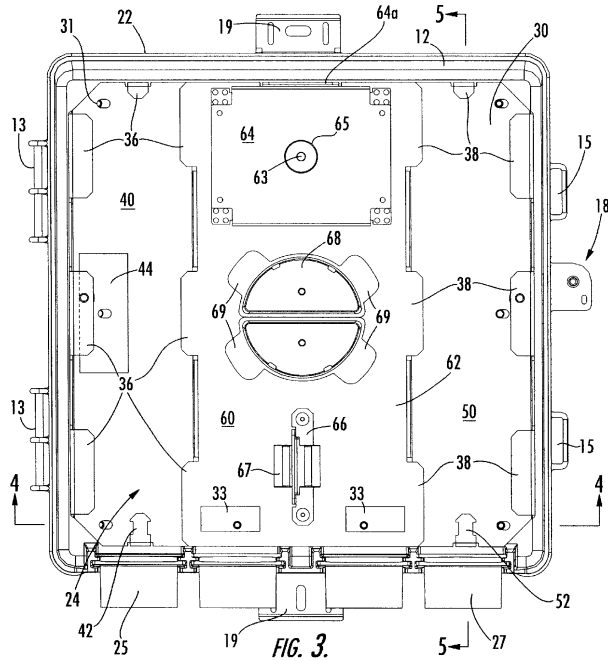
EX-2001, FIG. 2

Napiorkowski also teaches the use of a slack storage hub 349 in the NID for storing excess length of fiber optic pigtail. *Id.* ¶[0073], FIG. 14



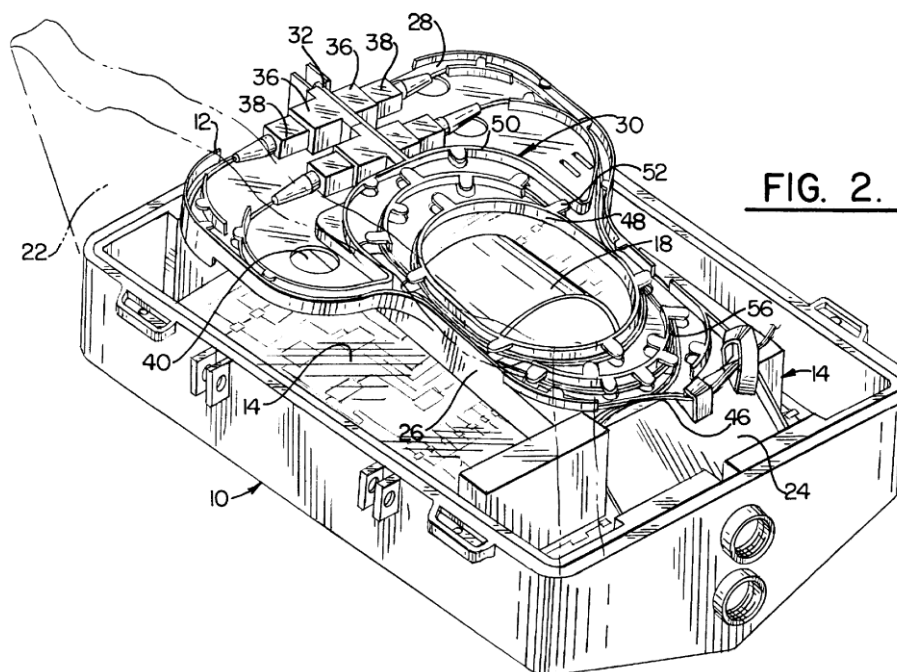
EX-2001, FIG. 14

Blankenship (Ex-2003) shows two sets of retaining flanges 36 and 38 for retaining slack lengths of feeder cable and distribution cable respectively. Ex-2003 4:26-39, 4:58-5:2, FIG. 3.



EX-2003, FIG. 3

Hoke (Ex-2002) states that fiber management capabilities are provided by permitting various slack lengths of optical fiber to be readily stored using multiple raceways. Ex-2002, 3:56-59. Hoke's raceways are defined between various walls 48, 50, 56 within the fiber organizer 12 of the node 10. Ex-2002, 7:64-8:8, FIGs. 1-3.



EX-2002, FIG. 2

Kowalczyk (Ex-2004) describes the storage module 13 as providing an interior region 51 that serves as a storage area for excess lengths of the feeder and subscriber cables 19, 41, where they can be coiled or looped and retained using clips 52. Ex-2004, 4:17-38, FIG. 3.

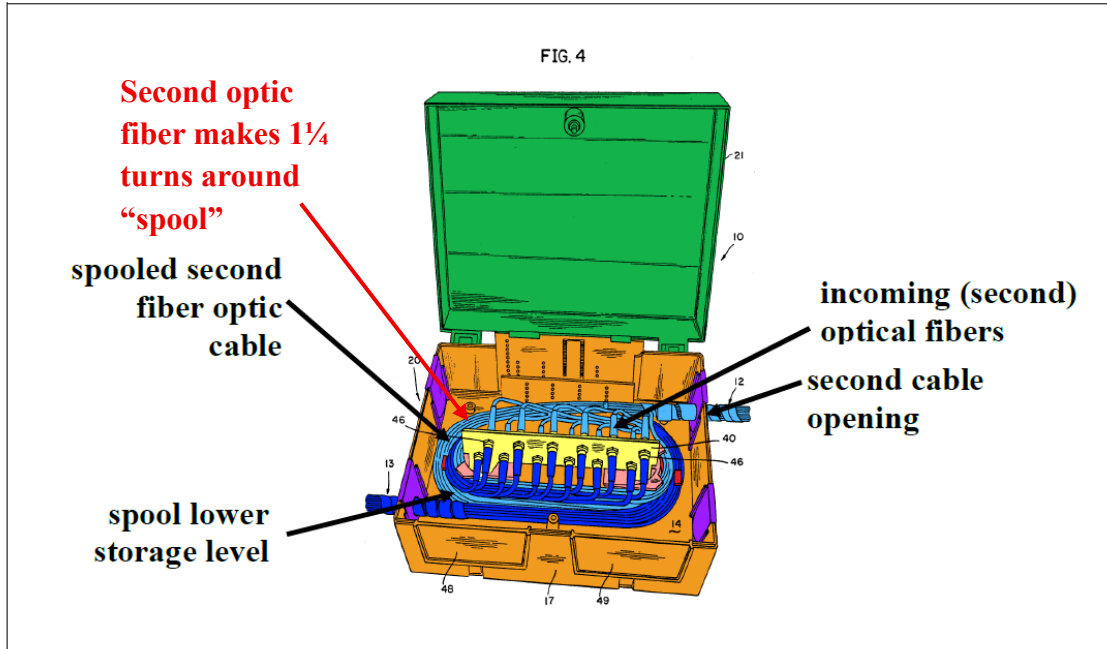
provide an adjustable length of fiber. Instead, Petitioner, relying on Dr. Eldering's declaration, jumps directly to patentee's solution of using a rotating spool.

Petitioner is impermissibly using hindsight to arrive at the combination of Hogan and Walters.

The Petition and Dr. Eldering discuss motivation to combine the teachings of Walters with Hogan in the discussion of Element 1[H1]. "As will be explained with respect to Element 1[H1] (Section VI.B.9), which requires that the spool rotate, a POSITA would have found it obvious based on the teachings of the rotatable reel 11 in *Walters* to modify *Hogan's* fixedly mounted spool (radiuses 28 and 30) to include a rotatable spool as shown below. Eldering, ¶¶114, 131-145." Petition at 41.

The Petition, following Dr. Eldering's declaration verbatim, wrongly and misleadingly states that the optical fibers can be paid out from Hogan's cabinet: "*Hogan* discloses that the second fiber optic cable (incoming optical fibers 12 (light blue)) is ***payable from the spool*** (formed by the lower storage level 34 of radiuses 28 (left) and 30 (right) (red)) through the second cable opening (opening 61 in grommet 57 (purple)) when the spool (radiuses 28, 30) is mounted in the interconnect cabinet 10. Petition at 51, EX1021 ¶132. (emphasis added). The Petition's, and Dr. Eldering's, statement is wrong. Hogan never discloses that cable is paid out or is payable from Hogan's cabinet. None of the Petitioner's

citations to Hogan identifies the need to pay out cable from the cabinet. On the contrary, Hogan describes his cabinet as being prepared “for receiving” the fibers, not for paying out fiber. EX1002, 3:40-44. Similarly, Hogan says that the fibers are “admitted into” the cabinet, never withdrawn or paid out from the cabinet. *Id.*, 4:4-5. Further, Hogan’s alleged “spool” is fixed, as is admitted in the Petition’s next paragraph: “Because the radiuses 28 and 30 are fastened to the base using threaded fasteners 38 and 39, *Hogan’s* spool does not rotate.” Petition at 51, EX1021 ¶133. Thus, the “spool” cannot rotate to pay out fiber. Nor does Hogan ever suggest that the fiber can be paid out, i.e. that the length of fiber extending from the cabinet can be altered, for example by using excess fiber stored in the cabinet. In fact, Hogan does not even teach that the “spool” can store excess optical fiber. As shown in FIG. 4, Hogan’s cabinet does not store excess fiber. Instead, as Petitioner conveniently illustrated in Petitioner’s annotated reproduction of Hogan’s FIG. 4 at p. 51 of the Petition (reproduced below), the incoming optical fibers 12 (light blue) make about 1¼ turns around the “spool” between entering the cabinet and terminating at a connector, with the outgoing optical fibers 13 (dark blue) likewise making about 1¼ turns around the “spool” between the fiber terminal connectors and the sidewall of the cabinet.



Petition at 43

Hogan’s “spool” allows for the incoming and outgoing optical fibers 12, 13 to be safely anchored within the cabinet without making bends in the fiber having such a small radius of curvature that losses are introduced. However, Hogan never makes any suggestion that excess fiber can be stored in the cabinet by making multiple turns of the fiber around the “spool” for paying out later. Rather, Hogan’s “spool” appears to be filled just with the 1¼ turns of the incoming and outgoing fibers, and there is no additional space on the “spool” to store excess fiber.

Petitioner’s logic for combining Walters with Hogan fails. Petitioner’s argument is as follows: i) the fiber cable is paid out of Hogan’s cabinet, ii) Hogan’s “spool” does not rotate, iii) but Walters teaches a rotating reel that allows a fiber to be paid out and iv) it would have been obvious to replace Hogan’s “spool” with

Walters' rotating reel. Petition at 51-52, EX1021 ¶¶132-134, 136. However, as has been explained above, Hogan *does not pay out fiber* and so Petitioner's chain of logic is broken.

The Petition, relying heavily on Dr. Eldering, fails to provide any reason articulated in Hogan or Walters why a POSITA would be motivated to replace Hogan's fixed "spool" with combine Walters' rotating reel. In paragraph 136 of his Declaration, Dr. Eldering merely concludes that "a POSITA would have found it obvious based on the teachings of the rotatable reel 11 in *Walters* to replace *Hogan's* fixedly mounted spool (radiuses 28 and 30) with a rotatable spool as shown below." EX1021, ¶136, also Petition at 52. And in paragraphs 137-138, Dr. Eldering describes what Hogan's cabinet modified to use a rotating reel would look like, with the aid of illustrations. There is no discussion of any advantage expressed in either Hogan or Walters that would be gained by making the combination.

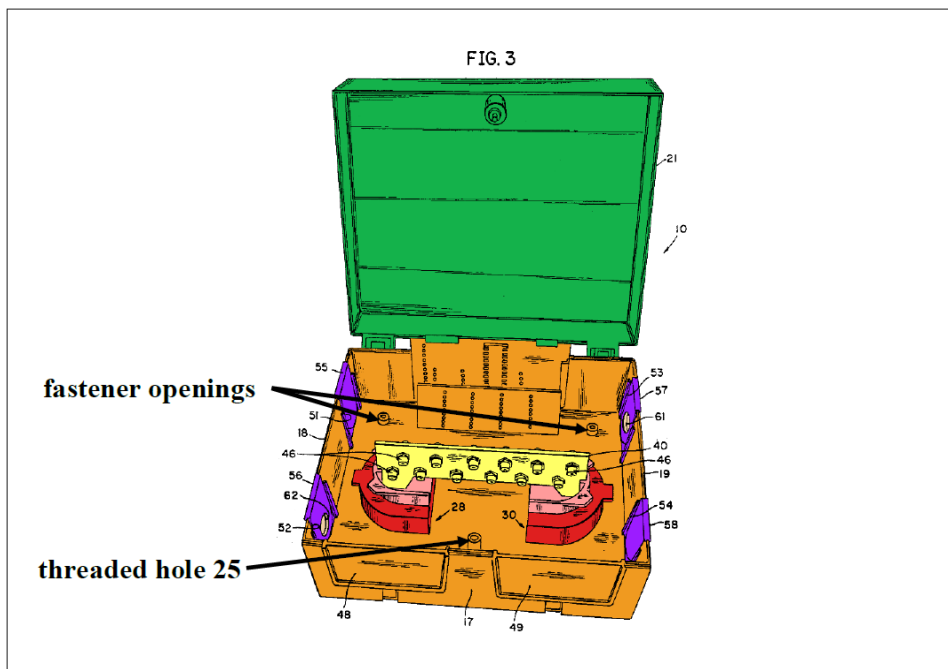
Thus, the Petition offers an inadequate motivation for combining Hogan and Walters, relying impermissibly on hindsight.

B. The Ground 1 References (Hogan and Walters) Fail To Disclose An Enclosure That Is Wall-Mounted

Claims 1 and 22 of the '417 Patent each require "a *wall mountable enclosure* arrangement including a base, sidewalls that project forwardly from the

base, and a cover, front portions of the sidewalls defining a front access opening.”
EX1001, 8:17-20 (cl. 1), 10:42-45, (emphasis added).

The Petition fails to show that the proposed combination of Hogan and Walters includes a wall mountable enclosure. As noted above, Walters teaches a rack-mounted enclosure, not a wall mounted one. The Petition states that Hogan’s cabinet is a wall mountable enclosure arrangement that can be secured to an installation surface (wall) using fasteners extending through the plurality of fastener openings in the base 14 of the housing shown in FIGs. 3 and 4. Petition at 29-30. The Petition presents the following annotated copy of Hogan’s FIG. 3, allegedly showing fastener openings.



Petition, 31

Significantly, Hogan itself is silent as to the function of the features of FIG.

3 alleged by the Petitioner to be “fastener openings,” completely failing to mention them in the specification and not even providing them with an element number in FIG. 3.

Consequently, Petitioner has to rely on its expert, Dr. Eldering, to speculate as to the function of these features. He states “[w]hile the fastener openings for mounting *Hogan’s* cabinet 10 do not have element numbers, they are depicted the same as the threaded hole 25 used for securing the rotatable, threaded fastener 24 of the cover. *Hogan*, 2:64-3:1, FIGS. 2-4. A POSITA would understand that *Hogan’s* interconnect cabinet was wall mountable using these fastener openings.” EX1021, ¶ 94. Dr. Eldering’s interpretation of *Hogan’s* FIG. 3 is flawed.

First, if, as Dr. Eldering claims, the undescribed features shown in the Figure 3 are depicted “the same” as the threaded hole 25 which is used for securing the cover fastener to the top side of the base, then the natural conclusion would be that these features *also* are for securing additional structures (e.g. other cable management devices such as cable ties, clips or retainers to hold the fiber cables in place inside the box) to the *top* side of the base *inside* the cabinet, not for attachment to structures to the bottom of the base *outside* the cabinet (e.g., a wall). Hole 25 is used to secure the cover to the top/internal side of the base. But a wall would need to mount to the bottom/external side of the base. Dr. Eldering cannot have it both ways. If we are to believe Dr. Eldering that these must be mounting

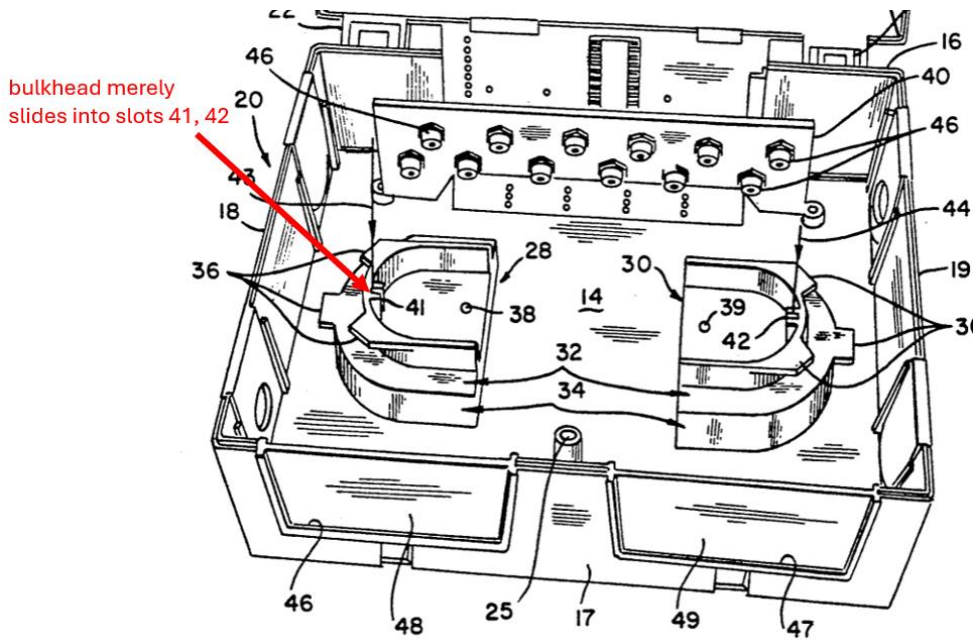
holes because he concludes they are “the same” as hole 25, then we must also conclude that they are for securing an element to the same side of the base as hole 25 (the top side, not the opposite bottom side). Dr. Eldering’s testimony is inconsistent. He wants to conclude that these features are mounting holes based on their likeness to hole 25, but at the same time he wants to say these features are different from hole 25 and serve a very different purpose by securing structures to an opposite side of the base compared to hole 25.

Second, the language used in Hogan to describe the relationship between the base and the sidewalls does not reflect any intention to mount the cabinet to a wall. In the ’417 Patent, the relationship between the enclosure sidewalls and the base of the embodiment shown in FIGs. 8-18 is described thus: “sidewalls that *project forwardly* from the base.” ’417 Patent, 8:18; 10:43 (emphasis added); see also 6:41-45 (sidewalls “*extend outwardly* from the base wall...”). Using the term “project forwardly” clearly conveys the intention that the base is set against a wall and that the enclosure sidewalls of the claimed invention extend forwards out from the base, in a direction away from the wall. This comports with the interior of the enclosure being described in the claims as a “front access opening.” Id. 8:19-20 (cl. 1), 10:44-45 (cl. 22).

On the other hand, in describing FIG. 2, Hogan states that “The side walls 16 and 17 and end walls 18 and 19 collectively comprise a wall indicated by general

numerical designation 20 which circumscribes the base 14 and *extends upwardly* therefrom.” EX1002, 2:59-64 (emphasis added). Hogan’s use of the phrase “extends upwardly” fails to provide any idea to a POSITA that the sidewalls 16 and 17 are extending forwardly or outwardly away from a wall. Instead, it suggests that Hogan’s cabinet is sitting on its base with the wall extending upwardly from the base, in an orientation like that shown in FIG. 5. In such a case, Hogan’s “access opening” would more correctly be termed a “top access opening,” rather than a “front access opening,” as required by the ’417 Patent claims.

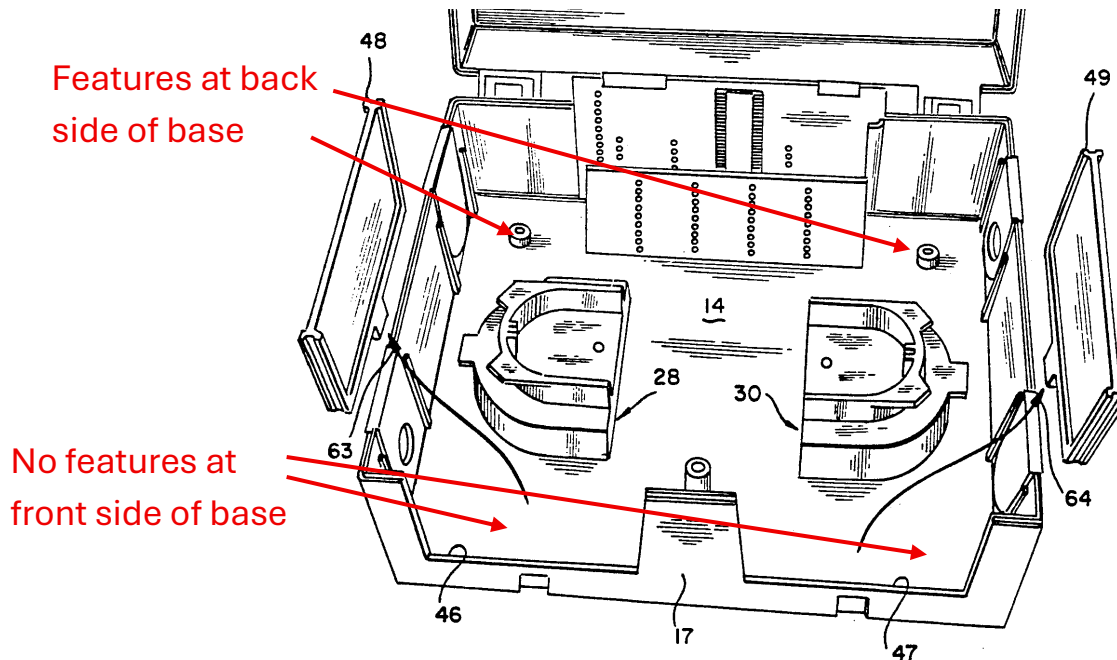
Third, Petitioner and its expert fail to explain why its interpretation is consistent with other features that are shown Hogan’s FIG. 5. As a first example, the internal bulkhead 40 is not fixedly mounted within the enclosure, but merely fits within opposed “slots” 41 and 42.



EX1002, FIG. 5

This makes sense in the orientation shown (resting on its base and *not* mounted to a wall) because gravity will keep the bulkhead in place. Petitioner tries to reinterpret Hogan as teaching a different orientation (turning the enclosure on its side) in order to mount the enclosure to a wall using the undescribed features on the enclosure's base. But this makes no sense because, if reoriented as suggested in the Petition and made to rotate on a reel, there is nothing taught in Hogan to keep the bulkhead from dislodging from its position. Dr. Eldering provides no explanation. As a second example, the number and positioning of the small, undescribed features shown on the base of Hogan's cabinet contradicts Petitioner's interpretation of Hogan. As can be seen in Hogan's FIG. 5, there are only two such features, along the back side of the cabinet base (14) farther away from the viewer in the figure,

with no such features shown on the front side of the cabinet base, closer to the viewer.



EX1002, FIG. 5

Dr. Eldering does not explain why a POSITA would use such a one-sided, unbalanced arrangement to secure an enclosure to wall, especially where his combination will require the user to be pulling on the free end of the cable to allegedly pay out cable from the enclosure.⁸ The more natural interpretation, which Dr. Eldering fails to address, is that these features are for positing other cable management structures inside the cabinet which do not need to evenly and securely affix the entire enclosure to a wall.

⁸ In contrast to Hogan, the '417 patent shows the use of a rectangular pattern of mounting holes on the base of the enclosure shown in, for example, FIG. 14. Furthermore, FIG. 17 expressly shows the enclosure mounted to a wall.

As a third example, Dr. Eldering does not explain how a *threaded* hole would work to secure the enclosure to a wall. Recall that Dr. Eldering assumes the two features he identifies are “the same” as the threaded hole 25. But holes for mounting an enclosure to a wall would be blank holes, not threaded holes, to allow a fastener to pass from inside the enclosure into the wall so that the fastener can pull the enclosure flush to the wall. Having concluded that these features “are depicted the same as the threaded hole 25 used for securing the rotatable, threaded fastener 24 of the cover,” Dr. Eldering fails to explain how a threaded hole would work to pull the enclosure flush to a flat surface (a wall). Dr. Eldering has made the mistake of using hindsight to interpret the teachings of Hogan.

For these reasons, the Petition fails to adequately support its assertion that Hogan’s cabinet is wall mounted.

C. The Ground 1 References (Hogan and Walters) Do Not Disclose Any Elements In The Prior Art Not Already Considered By The Examiner

The Petition does not raise any challenges that are truly new. During prosecution of the ’417 Patent, the Examiner considered both Walters and references that are redundant of Hogan. Although Petitioner has dressed up the Petition to make Hogan the primary reference and Walters a secondary reference, there is nothing new in Hogan that had not been considered in the art before the examiner. Hogan is merely another example of an enclosure with a cover for

housing optical fiber connections. Such references had already been considered. And, just like the references considered during prosecution, nothing in Hogan teaches a rotating spool to pay out fiber from the enclosure.

As has been described in Section II.B, *supra*, Walters was extensively considered during the original prosecution. It was the primary reference in the original obviousness rejection of claims 1-12. EX1005, 167-170. The basis of that rejection was that Walters disclosed all of the elements of then pending claim 1, except for disclosing that the cover is movable in order to selectively cover and uncover the opening in the housing. *Id.* at 169. The Examiner used Fuller (EX1011) as a secondary reference to teach this feature. In order to overcome this rejection, patentee amended claim 1 to include certain additional features of the enclosure, as shown in the following extract of the amendment to claim 1:⁹

⁹ Claim 1 was also amended to include the limitation that the fiber optic adapter is “spaced inwardly from the sidewalls” of the enclosure. *Id.*

1. (Currently Amended) A fiber optic enclosure comprising:
- a housing-wall mountable enclosure arrangement including a base, sidewalls that project forwardly from the base, and a cover-at a front of the housing, the sidewalls defining an access opening and defining a cable opening separate from the access opening, the cover being movable pivotal relative to the base about a pivot axis between an open position providing access to the access opening and a closed position covering the access opening, the cover contacting the sidewalls when disposed in the closed position;
 - the housing defining a cable opening for routing a first cable into the housing;
 - a spool mountable to the housing and positionable within the housing;
 - a second fiber optic cable spooled about a spooling portion of the spool, the second fiber optic cable including at least one optical fiber;
 - a fiber optic connector coupled to the at least one optical fiber of the second fiber optic cable;

...

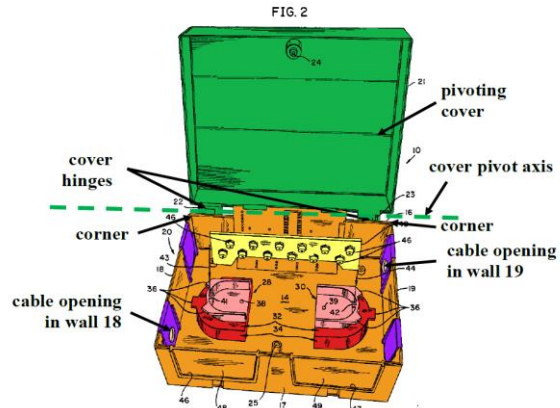
Id. at 91 (underlining in the original). Claim 1 was allowed following this amendment. *Id.* at 55.

The Examiner did consider several references showing the features that the Petitioner is now trying to introduce via Hogan, including a fiber optic cable enclosure that is “wall mountable” and that has sidewalls defining an access opening and a cable opening separate from the access opening, and a cover that is pivotable relative to the base about a pivot axis and provides access to the access opening when open and covering the access opening when closed.

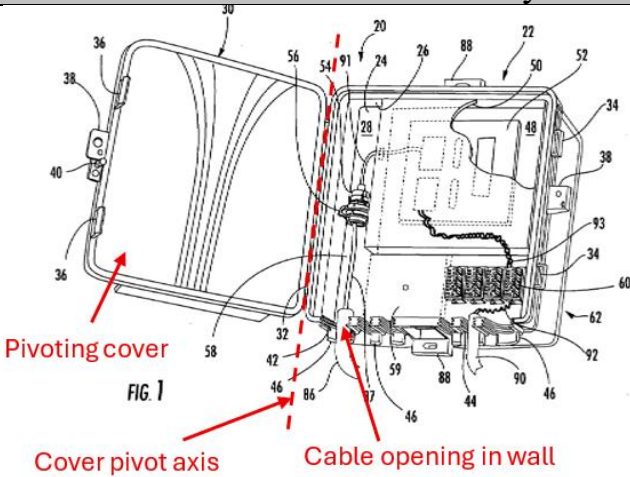
The Examiner acknowledged that Napiorkowski (Ex-2001), Hoke (Ex-2002), Blankenship (Ex-2003), and Kowalczyk (Ex-2004) had been considered during prosecution of the '417 Patent. *See* EX1005 at 182, 246. The enclosures

taught by Napiorskowski, Hoke, Blankenship, and Kowalczyk are compared with that of Hogan below, showing that the pivoting cover, the cover pivot axis, the hinges, adapters, non-rotating cable guides, and the cable openings are all present in references considered during prosecution. See Petition at 33, Napiorskowski FIG. 1, Hoke FIG. 2, Blankenship FIG. 2 and Kowalczyk FIG. 4.

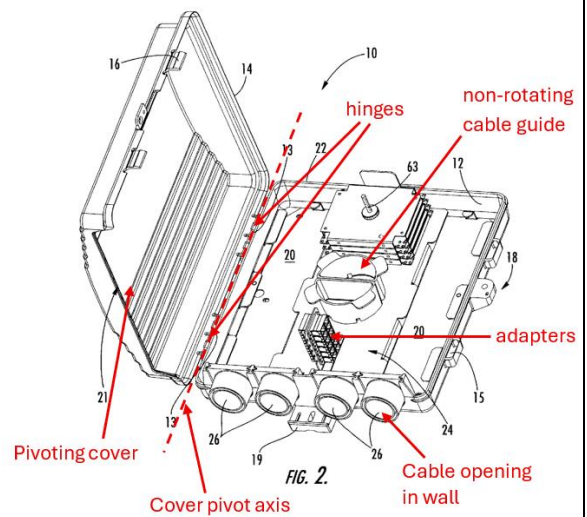
Hogan
Petition's Primary Reference (see Petition at 33)



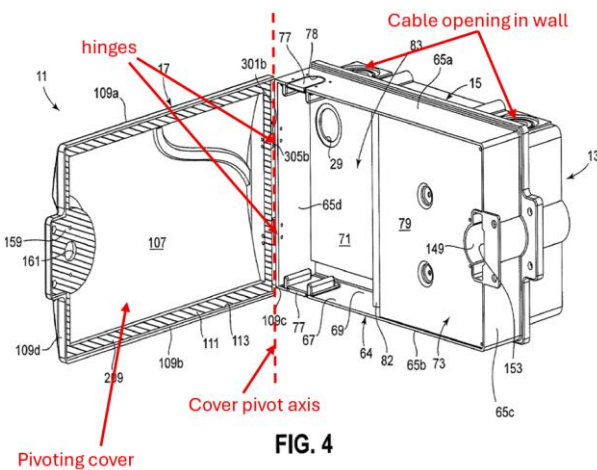
References Already Considered by the Examiner



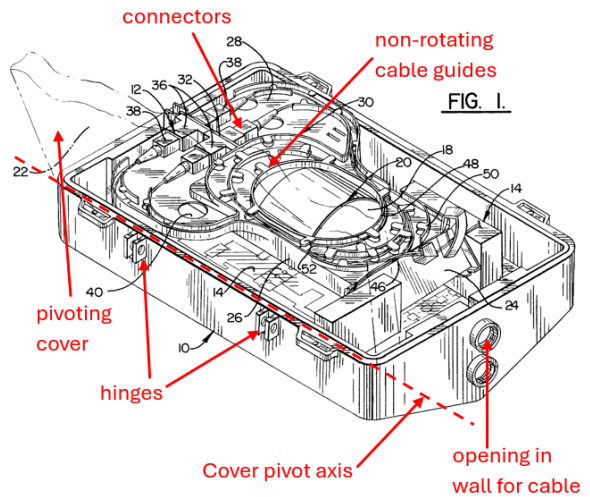
Napiorskowski FIG. 1



Blankenship Fig. 2



Kowalczyk Fig. 4



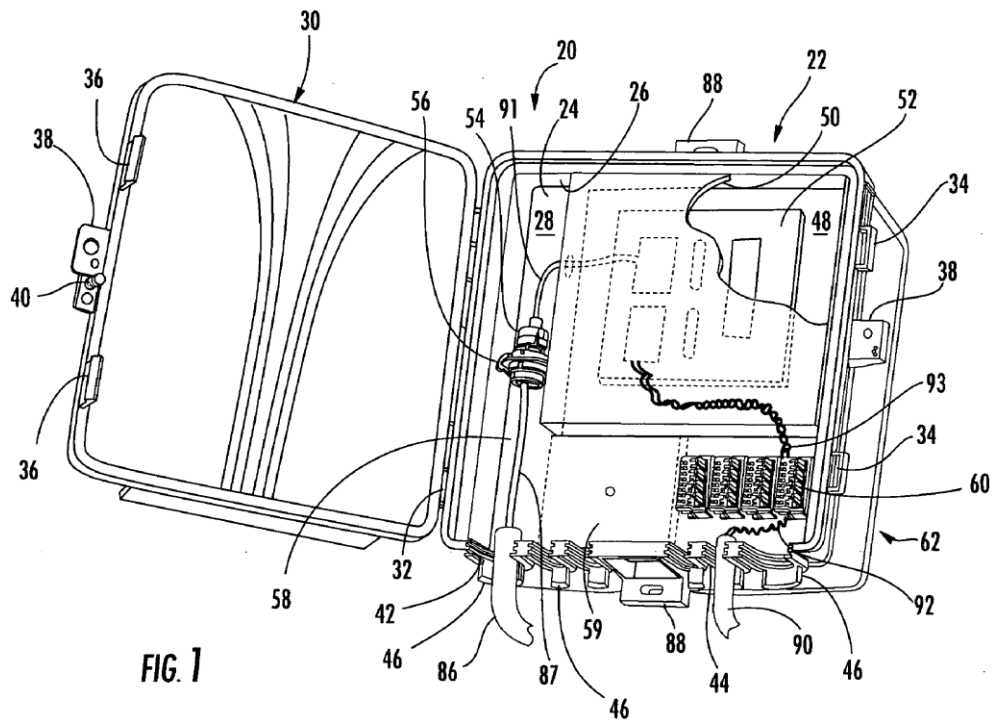
Hoke FIG. 2

Accordingly, the features Petitioner now attempts to introduce via Hogan as having not been previously considered were, in fact, considered by the Examiner. The Examiner considered prior art showing wall mountable enclosures for housing fiber optic cable connections that included hinged covers that selectively closed an access opening, including enclosures that housed connection locations and non-rotating cable guides for routing fiber cables in the enclosures. The Petitioner has not identified anything new in the Hogan reference that was not considered by the Examiner in these previously considered references. But these references, like Hogan, lack a rotating spool for paying out fiber cable from the enclosure. The Petitioner tries to solve that problem by combining Hogan with Walters, but the Examiner was also well aware of Walters' teachings regarding a rotating spool and based multiple rejections based on Walters, which were all eventually overcome during original prosecution. Therefore, the Petitioner's proposed combination of references is merely cumulative to the prior art considered during prosecution.

Relevant portions of the disclosures of each example of cumulative art is pointed out below.

First example: The Examiner considered U.S. Publication No. 2006/0153516 ("Napiorkowski," Ex-2001) during prosecution. Napiorkowski describes a network interface device (NID) for housing optical connections having an integral slack storage compartment. Ex-2001, Abstract. The NID 20 has a first base 22

comprised of a first floor 24 and a continuous sidewall 26 that extends out from the floor to form an outer compartment 28. *Id.* ¶[0028], FIG. 1. The NID 20 has a first base 22 comprised of a first floor 24 and a continuous sidewall 26 that extends out from the floor to form an outer compartment 28. *Id.* ¶[0028], FIG. 1. The NID is provided with a cover 30 attached to the first base by one or more hinges 32 that allow the cover to pivot between an open position, granting access to the first base, and a closed position, denying access to the first base. *Id.* ¶[0029], FIG. 1. A network drop cable 86 from a fiber optic communications network passes through the drop cable entry port 42 provided through the sidewall 26. *Id.* ¶[0031], FIG. 1. One or more fibers from the drop cable are connected to one or more fiber optic pigtailed 91 at a fiber optic connection 54 mounted to the floor via a bracket 56. *Id.* ¶[0035], FIG. 1. Thus, access to the fiber optic connection in the outer compartment is denied when the cover is in the closed position.



EX-2001, FIG. 1

Napiorkowski teaches that the NID is wall-mountable. Napiorkowski teaches that the floor 66 of the inner compartment 70 preferably includes slotted openings 76 for mounting the NID to the wall of a structure. *Id.*, ¶[0039], FIG. 2.

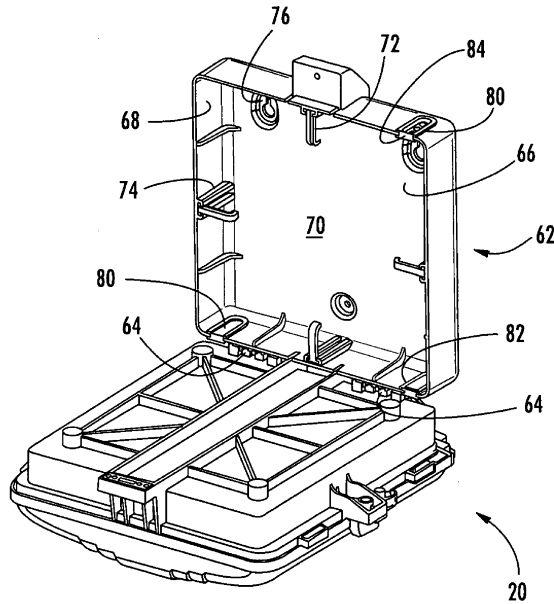


FIG. 2

EX-2001, FIG. 2

Second Example: The Examiner considered U.S. Patent No. 6,721,484 (“Blankenship”, Ex-2003) during prosecution. Blankenship discloses a fiber optic network interface device (NID) 10 having a base 12, defining an interior cavity, and a protective cover 14 movably attached to the base. *See* Ex-2003, Abstract, 2:32-36, FIG. 2. The cover is movable between a closed position and an opened position. *Id.* 2:39-41. The cover is preferably attached to the base by a series of hinges 13 located along one side of the base. *Id.* 2:41-44. The base comprises one or more feet 19 for mounting the NID to a wall or other building structure at the subscriber premises. *Id.* 2:57-60. The NID includes a floor 20 and sidewall 22 that depends up from the floor to define an interior cavity 24 and includes adapters 67

and a circular cable guide 68 for guiding cables and slack storage inside the interior. The sidewall includes a plurality of entry ports 26, each entry port being in communication with the interior cavity to permit fiber cables to be routed into the NID.

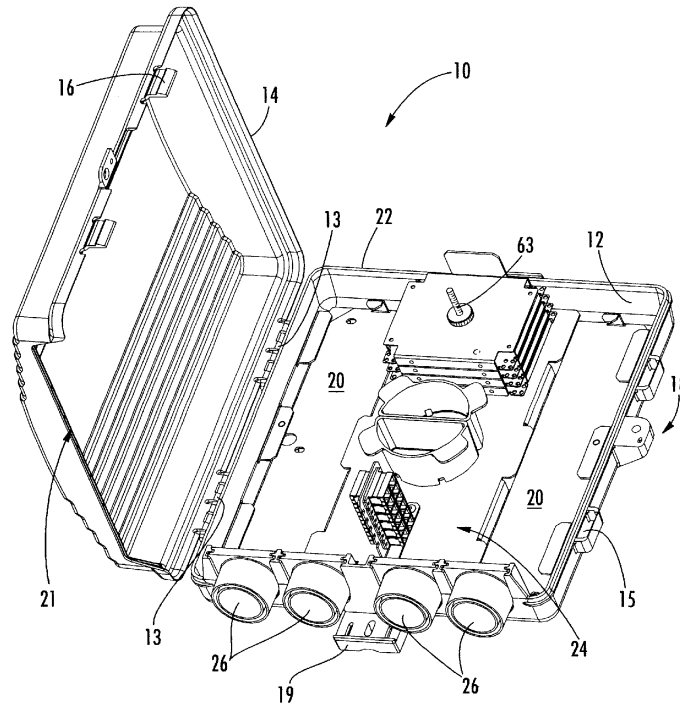
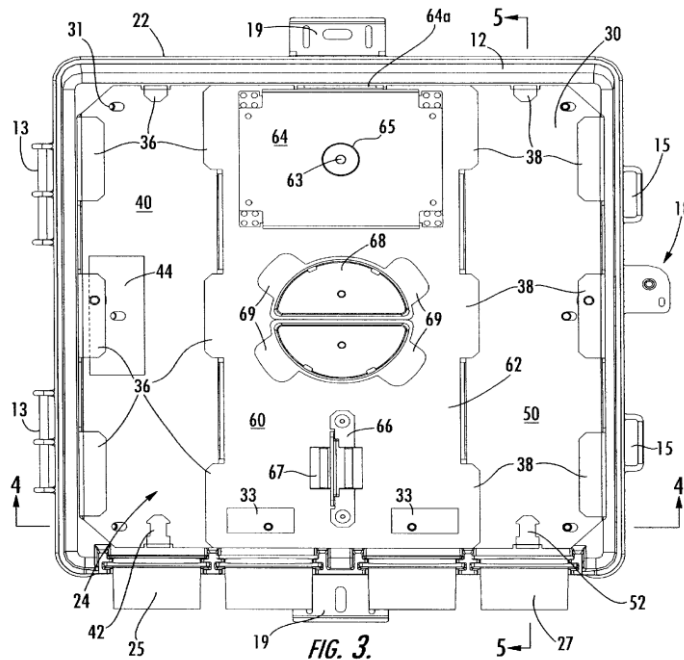


FIG. 2.

EX-2003, FIG. 2

The optical fiber of the feeder cable is connected to the optical fiber of the distribution cable in the fiber connecting area 60. In particular, the optical fiber of the feeder cable is optically joined to a first connector, and the first connector is then routed to an adapter. Similarly, the optical fiber of the distribution cable is first optically joined to a second connector, and the second connector is then routed to the adapter in optical alignment with the first connector. The first and second

connectors are optically joined through the adapter to connect the optical fiber of the feeder cable and the optical fiber of the distribution cable. *Id.* 5:16-26, FIG. 3. An adapter bracket 66 receives the first connector and the second connector. *Id.* 5:64-66, FIG. 3. The adapter bracket includes a number of adapters 67 for receiving the first and second connectors in optical alignment. *Id.* 6:1-5.

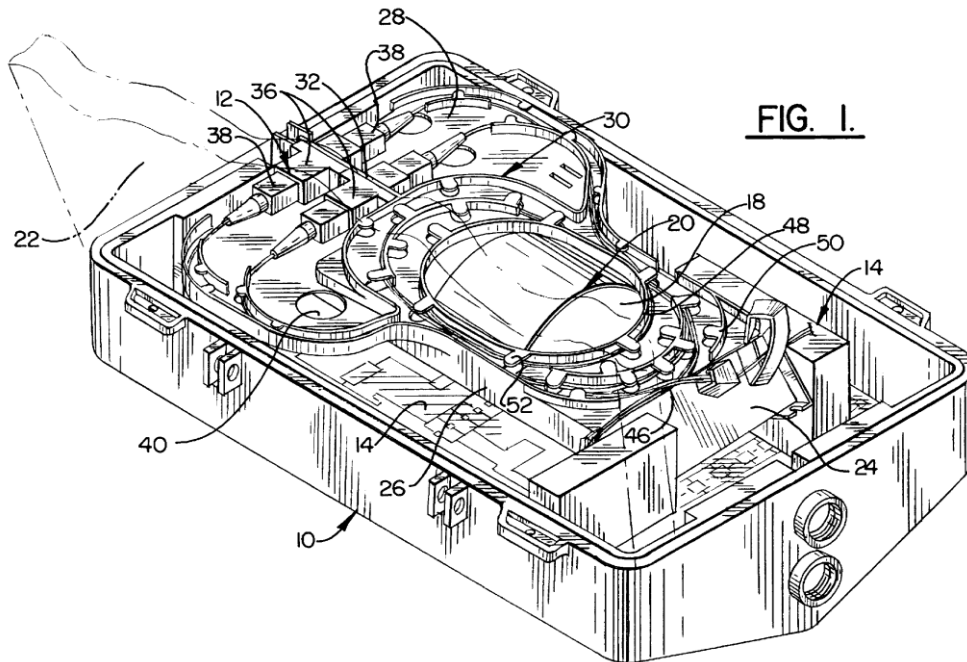


EX-2003, FIG. 3

Third Example: The Examiner considered U.S. Patent No. 5,987,207 (“Hoke”, Ex-2002) during prosecution. Hoke discloses an optical node having a fiber organizer for supporting at least one optical fiber within a housing. *See* Ex-2002, Abstract. The node 10 includes a housing (un-numbered). A first optical fiber enters the node from the exterior. *Id.* 5:8-9, FIG. 1. The connector portion 28 of the node includes connector sleeves 36 and a pair of connectors 38 can be mated

within the sleeves to connect the first fiber to a second fiber. *Id.* 5:19-26, FIG. 1.

The housing includes a lid 22 (shown in ghost lines in an open position) which can be hinged to a closed position. *Id.* 4:64-65, FIG. 1.



EX-2002, FIG. 1

Fourth Example: The Examiner considered U.S. Patent No. 7,493,003 (“Kowalczyk,” Ex-2004) during prosecution. Kowalczyk discloses a fiber optic enclosure that includes a base housing module with a plurality of sides wherein the base and sides define an interior region. *See* Ex-2004, Abstract, FIG. 3.

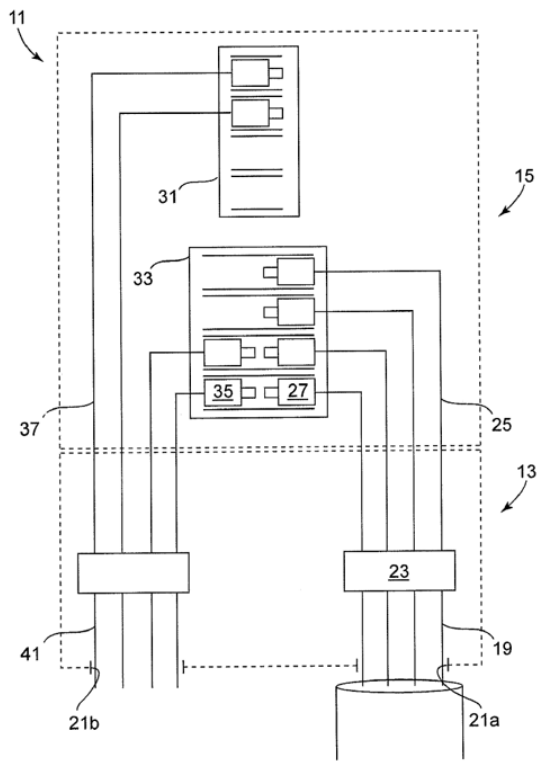


FIG. 2

EX-2004, FIG. 2

cables are fed through the cable ports 21a, 21b, respectively, so as to provide a point of entry for the feeder and subscriber cables into the base housing module. *Id.* 4:10-16. The base housing module also provides storage for excess lengths of the feeder and subscriber cables. *Id.* 4:17-19. The base housing module also includes a plurality of wall mounts 57 that can receive a plurality of retainers (not shown), such as nails, bolts, or screws, for fastening the enclosure to a wall. *Id.* 45:8-5:2.

A hinge is formed by at least one hinge component 305b, attached to the outer surface of the cover 17 and at least one hinge component 301b, attached to outer surface of sidewall 65d of the termination module 15. When the cover is engaged with the termination module 15, which is also engaged with the base housing module, the outer surfaces of the cover, the termination module, and the base housing module cooperate to form the exterior surfaces of the modular fiber optic enclosure. *Id.* 7:11-24. The enclosure can be secured to prevent unauthorized access using a latch as described at 7:24-32, and FIGs. 3, 4, 9, and 10.

that the Patent Office did not make the particular obviousness combination proposed by the Petitioner (Hogan + Walters) does not mean the Examiner made an error. The Examiner simply refused to make a 103 rejection combining Walters with the wall-mountable enclosures of the references in the file.

VI. CONCLUSION

For the foregoing reasons, the Petitioner has not shown a reasonable likelihood that the Petitioner would prevail with respect to at least one of the challenged claims, and Patent Owner respectfully requests that the Petition be denied.

front of the '417 Patent. Ex. 1001. The Examiner marked as “considered” the IDS listing of each of Blankenship, Napiorkowski, Hoke and Kowalczyk. *See* EX1005 at 262, 182, 246, and 181 respectively. Additionally, the Examiner’s search strategies featured the specific document numbers of each of Blankenship, Napiorkowski and Kowalczyk. *Id.* at 72, 73, and 72 respectively.

Dated: October 1, 2025

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CERTIFICATION UNDER 37 CFR § 42.24(d)

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing *Patent Owner's Preliminary Response* totals 6887 words per Microsoft Word 365, which complies with the word limit set forth in 37 C.F.R. § 42.24.

Dated: October 1, 2025

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CERTIFICATION OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e) and the agreement of the parties, the undersigned certifies that on October 1, 2025, a true and correct copy of the foregoing *Patent Owner's Preliminary Response* was served via electronic mail upon the following:

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