UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	07/14/2020	10712509	USCO-053-02	9525

152017 7590 06/24/2020

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Hiep V. Nguyen, Fort Mill, SC;
US Conec, Ltd., Hickory, NC;
Darrell R. Childers, Hickory, NC;
Michael E. Hughes, Hickory, NC;
Jillcha Fekadu Wakjira, Hickory, NC;
Joseph P. Howard, Hickory, NC;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

Change(s) applied
to document,
/Y.C.C./
5/5/2020

IN THE SPECIFICATION:

Please replace paragraph [0035] with the revised new paragraph:

The position of the ferrule holders **300** on the first side **106** of the adapter relative to the ferrule holders **300** on the second side **108** is what allows the optical ferrules to be aligned with one another. There is no need, as discussed above, to worry about the stacking of tolerances as in the prior art. The positioning of the projections **320,322** on the ferrule holders **300** relative to the plurality of grooves **140**, **142** is important. With reference to Figs. 7A and 7B, the projections **320,322** are used to control the x and y locations of the ferrule holders **300**. The ~~surfaces **350**~~ surfaces **340** of the projections **320,322** (Fig. 7A) align with the surfaces **150** in the adapter (Fig. 7B) to control the x direction of the ferrule holder **300** relative to the adapter **100**. The surfaces **352** of the ferrule holder **300** align with the surfaces ~~**352** of~~ **152** of the raised bottom portion **132** and the dropped top portion **134** of the center portion **110** to control the y direction of the ferrule holder **300** relative to the adapter **100**. The surfaces of the projections **320,322** could also align in the y direction, given that they are parallel to the surfaces **352**.

Document Description: Issue Fee Payment (PTO-85B)

Issue Fee Transmittal Form

Application Number	Filing Date	First Named Inventor	Atty. Docket No.	Confirmation No.
15855788	27-Dec-2017	Hiep Nguyen	USCO-053-02	9525

TITLE OF INVENTION :

Alignment Adapter and Alignment Design for a Connector Therefor

Entity Status	Application Type	Art Unit	Class - Subclass	EXAMINER
Regular Undiscounted	Utility under 35 USC 111(a)	2883	059000	OMAR ROJAS

Issue Fee Due	Publication Due	Total Fee(s) Due	Date Due	Prev. Paid Fee
$1000	$0	$1000	18-Jun-2020	$0

1.Change of Correspondence Address and/or Indication Of Fee Address (37 CFR 1.33 & 1.363)

Current Correspondence Address:	Current Indicated Fee Address :
152017 Us Conec Ltd. 1138 25th Street Southeast Hickory NC 28602 UNITED STATES 828-323-8883 eofficeaction@appcoll.com	
☐ Change of correspondence address requested, system generated AIA/122-EFS form attached	☐ Fee Address indication requested, system generated SB/47-EFS form attached

2.Entity Status

Change in Entity Status

○ Applicant certifying micro entity status; system generated Micro Entity certification form attached. See 37 CFR 1.29.
Note: Absent a valid certification of micro entity status, issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment. If this box is checked, you will be prompted to choose a micro entity status on the gross income basis (37 CFR 1.29(a)) or the institution of higher education basis (37 CFR 1.29(d)), and make the applicable certification online.

○ Applicant asserting small entity status. See 37 CFR 1.27.
Note: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

◉ Applicant changing to regular undiscounted fee status.
Note: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

Document Description: Issue Fee Payment (PTO-85B)

3.The Following Fee(s) Are Submitted:

☒ Issue Fee

☐ I authorize USPTO to apply my previously paid issue fee to the current fees due

☐ Publication Fee

☐ The Director is hereby authorized to apply my previously paid issue fee to the current fee due and to charge deficient fees to Deposit Account Number _____

☐ Advance Order - # of copies _____

☐ If **in addition to** the payment of the issue fee amount submitted with this form, there are any discrepancies in any amount(s) due, the Director is authorized to charge any deficiency, or credit any overpayment, to Deposit Account Number _____ . The **issue fee must be submitted** with this form. **If payment of the issue fee does not accompany this form, checking this box and providing a deposit account number will NOT be effective to satisfy full payment of the fee(s) due.**

4.Firm and/or Attorney Names To Be Printed

NOTE: If no name is listed, no name will be printed
For printing on the patent front page, list to be displayed as entered

1. Michael L. Leetzow, P.A.
2. Shubhrangshu Sengupta
3.

5.Assignee Name(s) and Residence Data To Be Printed

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

Name	City	State	Country	Category
US Conec, Ltd	Hickory	NORTH CAROLINA	united states	corporation

6.Signature

I certify, in accordance with 37 CFR 1.4(d)(4) that I am an attorney or agent registered to practice before the Patent and Trademark Office who has filed and has been granted power of attorney in this application. I also certify that this Fee(s) Transmittal form is being transmitted to the USPTO via EFS-WEB on the date indicated below.

Signature	/Michael L. Leetzow/	**Date**	06-08-2020
Name	MICHAEL LEETZOW	**Registration Number**	35932

Electronic Patent Application Fee Transmittal

Application Number:	15855788
Filing Date:	27-Dec-2017
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Filer:	MICHAEL LEETZOW
Attorney Docket Number:	USCO-053-02

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY APPL ISSUE FEE	1501	1	1000	1000
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**1000**

Electronic Acknowledgement Receipt

EFS ID:	39651636
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	08-JUN-2020
Filing Date:	27-DEC-2017
Time Stamp:	12:17:15
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1000
RAM confirmation Number	E202068C17115228
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	Web85b.pdf	45905 f09a92babf9ca90d3b83a4fe4e7d19f2492c7a7c	no	2
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31925 95108491fb5245474498a26d0c639ac14c422d37	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	77830		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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NOTICE OF ALLOWANCE AND FEE(S) DUE

152017 7590 03/18/2020

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER	
ROJAS, OMAR R	
ART UNIT	PAPER NUMBER
2883	

DATE MAILED: 03/18/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

TITLE OF INVENTION: Alignment Adapter and Alignment Design for a Connector Therefor

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1000	$0.00	$0.00	$1000	06/18/2020

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

152017 7590 03/18/2020

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

TITLE OF INVENTION: Alignment Adapter and Alignment Design for a Connector Therefor

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1000	$0.00	$0.00	$1000	06/18/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
ROJAS, OMAR R	2883	385-059000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

Senko Ex. 1014, Page 10
Senko Advanced Components V. US Conec Ltd.
IPR2024-00805

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 03/18/2020

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER	
ROJAS, OMAR R	
ART UNIT	PAPER NUMBER
2883	

DATE MAILED: 03/18/2020

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Senko Ex. 1014, Page 11
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or

Notice of Allowability	Application No. 15/855,788	Applicant(s) Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to the amendment and arguments filed 02/10/2020.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 12-13,22-25 and 27-37 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/Omar R Rojas/
Primary Examiner, Art Unit 2883

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	Art Unit
	Omar R Rojas	2883

CPC - Searched*		
Symbol	Date	Examiner
G02B6/3879,3881,3885,3893	03/11/2020	/ORR/

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

/OMAR R ROJAS/ Primary Examiner.Art Unit 2883	

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	Art Unit
	Omar R Rojas	2883

Search Notes		
Search Notes	**Date**	**Examiner**
Checked refs. for 14/214,931	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/05/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/14/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/27/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/28/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	06/25/2019	/ORR/
Updated previous EAST search - See Search History Printout.	10/31/2019	/ORR/
Updated previous EAST search - See Search History Printout.	03/10/2020	/ORR/

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
PGPUB - text search	See EAST printout.	03/11/2020	/ORR/

/OMAR R ROJAS/ Primary Examiner.Art Unit 2883	

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	**Art Unit**
	Omar R Rojas	2883

CPC							
Symbol						**Type**	**Version**
G02B	/	6	/	3879		F	2013-01-01
G02B	/	6	/	3817		I	2013-01-01
G02B	/	6	/	3825		I	2013-01-01
G02B	/	6	/	3881		I	2013-01-01
G02B	/	6	/	3885		I	2013-01-01

CPC Combination Sets								
Symbol						**Type**	**Set**	**Ranking**	**Version**
	/		/						

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	17	
/Omar R Rojas/ Primary Examiner, Art Unit 2883	11 March 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	32	5A

U.S. Patent and Trademark Office — Part of Paper No.: 20200311

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	**Art Unit**
	Omar R Rojas	2883

INTERNATIONAL CLASSIFICATION					
CLAIMED					
G02B6/38	/	6	/	38	

NON-CLAIMED					
	/		/		

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	17	
/Omar R Rojas/ Primary Examiner, Art Unit 2883	11 March 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	32	5A

U.S. Patent and Trademark Office — Part of Paper No.: 20200311

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	**Art Unit**
	Omar R Rojas	2883

☑ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	17	
/Omar R Rojas/ Primary Examiner, Art Unit 2883	11 March 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	32	5A

U.S. Patent and Trademark Office

Part of Paper No.: 20200311

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

EAST Search History

EAST Search History (Prior Art)

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S637	1057	G02B6/3831.cpc.	US-PGPUB; USPAT; DERWENT	OR	OFF	2020/03/10 18:26
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S639	4255	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/10 18:26
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S649	53869	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/10 18:26
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S655	610	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2020/03/10 18:26
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S676	161	S675 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/10 18:26
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S730	439	G02B6/3879.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S731	417	S730 not (S728 S729)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S732	866	S728 S729 S731	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S733	249	G02B6/3878.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S734	197	S733 not S732	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S735	21864	(protrusion projection protuberance raised) with (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S736	161	S735 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S737	99	S736 not (S732 S734)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S738	1800	385/59,71.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S739	180	G02B6/3879.cpc. and S738	US-PGPUB; USPAT; EPO; JPO;	OR	OFF	2020/03/11 09:43

			DERWENT; IBM_TDB			
S740	116	S739 not (S732 S734 S737)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S741	1756	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S742	3193	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S743	195	S741 and S742	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S744	56	S743 not (S732 S734 S737 S740)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S745	888	G02B6/3897.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S746	614	S745 not (S732 S734 S737 S740 S744)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S747	197	S746 and (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S748	351	G02B6/3897.cpc. and S742	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S749	204	S748 not (S732 S734 S737 S740 S744 S747)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S750	1011	G02B6/3825.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:43
S751	546	S750 not (S732 S734 S737 S740 S744 S747 S749)	US-PGPUB; USPAT; EPO; JPO;	OR	OFF	2020/03/11 09:43

			DERWENT; IBM_TDB			
S752	124	("4840451").URPN.	USPAT	OR	OFF	2020/03/11 09:43
S753	2381	S732 S734 S737 S740 S744 S747 S749 S751 S752	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S754	181	S703 S704 S706 S708 S711	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S755	2532	S753 S754	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/03/11 09:43
S756	813	S697 not S755	US-PGPUB; USPAT; DERWENT	OR	OFF	2020/03/11 09:43
S757	26	(US-20050135755-$ or US-20050281509-$ or US-20110091158-$ or US-20120027360-$ or US-20120057824-$ or US-20180284357-$).did. or (US-5121454-$ or US-5129024-$ or US-5199093-$ or US-5325455-$ or US-5883998-$ or US-6095695-$ or US-6331079-$ or US-6361218-$ or US-6364536-$ or US-6406192-$ or US-6422760-$ or US-7073953-$ or US-7182523-$ or US-7290941-$ or US-8920043-$ or US-9086546-$ or US-9857538-$).did. or (GB-2069175-$).did. or (GB-2069175-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2020/03/11 09:43
S758	1230	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 09:49
S759	686	S758 not (S755 S756)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 09:49
S760	694	G02B6/3885.cpc. and S738	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/03/11 09:50
S761	4066	G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 09:50
S764	2737	S761 not (S755 S756 S759)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 09:58
S765	2966	G02B6/3893.cpc.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 10:00

S766	1556	S765 not (S755 S756 S759 S764)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 10:00
S769	439	G02B6/3881.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2020/03/11 10:12
S770	250	S769 not (S755 S756 S759 S764)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2020/03/11 10:13
S771	4	"54701497".FMID.	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/03/11 11:22
S772	1540	S765 not (S755 S756 S759 S764 S770)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2020/03/11 11:56
S773	2	"16779158".FMID.	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/03/11 12:06

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S774	3	(body and ferrule and opening and projection and latch$3 and (shape width)).clm.	US-PGPUB	OR	OFF	2020/03/11 11:53

3/11/2020 7:17:00 PM
C:\Users\orojas1\Documents\EAST\Workspaces\15855788.wsp

Bibliographic Data

Application No: 15/855,788

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /Omar R Rojas/ (Examiner's Signature) | (Initials)

Title: Alignment Adapter and Alignment Design for a Connector Therefor

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/27/2017	385	2883	USCO-053-02
RULE			

APPLICANTS

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Joseph P. Howard Hickory, NC, UNITED STATES

CONTINUING DATA

This application is a CON of 14214931 03/15/2014 PAT 9857538

14214931 has PRO of 61789499 03/15/2013

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

01/09/2018

STATE OR COUNTRY

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Hickory, NC 28602

UNITED STATES

FILING FEE RECEIVED

$1,600

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $80 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $420 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	02/10/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 17	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/TERRANCE R LAWRENCE/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt

EFS ID:	38546068
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	10-FEB-2020
Filing Date:	27-DEC-2017
Time Stamp:	19:00:09
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	USCO05302February2020.pdf	76437 330b4bcc0f1efac9fd3cc1417ad110ecdffe3292	no	6

Warnings:

Information:	
Total Files Size (in bytes):	76437

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Mail Stop AF
Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

RESPONSE

Dear Sir:

In response to the Office Action mailed on November 18, 2019, and the Interview Summary mailed on January 31, 2020, Applicant responds as follows::

IN THE CLAIMS:

Claims 1-11. Canceled.

12. (Previously Presented) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body to engage corresponding grooves in an adapter, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different shape than the second projection, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces; and

a single cantilevered latch attached to one of the top surface and the bottom surface rearwardly of and unconnected to the first projection and the second projection.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14 -21. Canceled.

22. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

23. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends along a length of the ferrule holder.

24. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections has a chamfered front end.

25. (Previously Presented) The ferrule holder according to claim 12, wherein one of the projections has at least one dimension that is different than the other projection.

26. Canceled.

27. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a width of the projection.

28. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a height of the projection.

29. (Previously Presented) The ferrule holder according to claim 12, wherein the projections slidingly engage a corresponding groove in a plug.

30. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a vertical side surface to align the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

31. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a horizontal top surface to align the ferrule holder with a horizontal wall of

a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

32. (Previously Presented) A ferrule holder comprising:

a main body;

a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, the projections extending along a length of the main body at least partially in a front half of the main body, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces; and

a single cantilevered latch attached to one of the top surface and the bottom surface rearwardly of and unconnected to the first projection and the second projection.

33. (Previously Presented) The ferrule holder according to claim 32, wherein one of the projections is on a first outside surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second outside surface.

34. (Previously Presented) The ferrule holder according to claim 33, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

35. (Previously Presented) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

36. (Previously Presented) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces, the first projection having a different shape than the second projection and the projections having surfaces to the control movement of the main body relative to an adapter; and

a single cantilevered latch attached to one of the top surface and the bottom surface rearwardly of and unconnected to the first projection and the second projection.

37. (Previously Presented) The ferrule holder according to claim 12, wherein the first and second projections each have two side walls, at least one of the side walls from the first projection being offset in a lateral direction from each of the side walls of the second projection.

REMARKS

In the above-referenced Office Action, the Examiner indicated that the amendments to the claims and the specification from the Amendment filed on September 24, 2019, have been entered. Thus, the claims above reflect those amendments. Applicant also submits that the additional sentence in the specification has been entered and is not repeated here.

In that Office Action, the Examiner indicated that there were only two issues remaining in the case: 1) the specification had new matter; and 2) the claims were rejected under 35 U.S.C. § 112(a).

The Examiner indicated that the word "shape" was new matter in the specification and had to be removed. The claims were rejected because the word "shape" was not supported by the specification. Applicant called the Examiner to bring to his attention that different shapes found support in the provisional application, an application that was incorporated by reference and also from which the present application claims priority. See Interview Summary. Since support has been provided, the addition of the sentence in the last amendment is not new matter and the claims now find support in the specification. Thus, the claims are allowable.

Applicant agrees with the Examiner's statements in the summary.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

/Michael L. Leetzow/

Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct
Sanford, FL 32771
Telephone: 407/302-9970

Date: February 10, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 01/31/2020

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
01/31/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
michael@leetzow.com
ssengupta@usconec.com

Applicant-Initiated Interview Summary	**Application No.** 15/855,788	**Applicant(s)** Nguyen et al.	
	Examiner Omar R Rojas	**Art Unit** 2883	**AIA (FITF) Status** No

All participants (applicant, applicants representative, PTO personnel):

(1) Omar R. Rojas. (3) _____.

(2) Michael L. Leetzow. (4) _____.

Date of Interview: 28 January 2020.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☑112 ☐102 ☐103 ☑Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: None.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Mr. Leetzow argued that support for the "different shape" limitation recited by claim 1 could be found in parent provisional application no. 61/789,499. In particular, one of the specification documents filed 03/15/2013 in the provisional application states "[t]he shape of keys are rectangular but could be other shapes such as semi-circular". The examiner agreed that adequate support for all of the claimed subject matter was provided by applicant and that the previous claim rejection(s) under 35 USC 112 were obviated in view of Mr. Leetzow's argument. The examiner also agreed to withdraw the objection to specification. Mr. Leetzow indicated that he would still file a formal response that includes the argument(s) set forth in this interview..

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Omar R Rojas/ Primary Examiner, Art Unit 2883	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiners responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicants correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,-
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicants record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiners version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, Interview Record OK on the paper recording the substance of the interview along with the date and the examiners initials.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 11/18/2019

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
11/18/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
michael@leetzow.com
ssengupta@usconec.com

Office Action Summary	Application No. 15/855,788	Applicant(s) Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 09/24/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 12-13,22-25 and 27-37 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☑ Claim(s) 32-35 is/are allowed.

7) ☑ Claim(s) 12-13,22-25,27-31 and 36-37 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☑ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/24/2019 has been entered.

Response to Amendment

3. With regards to the amendment filed on 09/24/2019, all the requested changes to the claims and specification have been entered. Applicant's constructive efforts to advance prosecution are appreciated. Claim(s) 12, 13, 22-25, and 27-37 are pending.

Specification

4. The amendment filed 09/24/2019 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the projections 320 and 322 having different shapes. The added material is beyond the scope of the original disclosure. Different shapes could mean many different shapes such as v-shaped projections, circular projections, triangular-shaped projections, etc. For example, Patent No. 4,645,295 to Pronovost discloses v-shaped ridges (40) formed on the surfaces of an optical plug (16). The newly added material would now read on using both the originally disclosed projection shape and the v-shape of Pronovost's

ridges (40) because these could be considered different shapes.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. **Claims 12, 13, 22-25, 27-31, 36, and 37 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention. The original disclosure did not mention "the first projection having a different shape than the second projection" (see claims 12 and 36). Different shapes could mean many different shapes such as v-shaped projections, circular projections, triangular-shaped projections, etc. For example, Patent No. 4,645,295 to Pronovost discloses v-shaped ridges (40) formed on the surfaces of an optical plug (16). The newly added limitation would now read on using both the originally disclosed projection shape and the v-shape of Pronovost's ridges (40) because these could be considered different shapes. Thus, the original disclosure is not commensurate with the scope of protection sought by the claims.

Allowable Subject Matter

7. Claims 32-35 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar R. Rojas whose telephone number is (571)272-2357. The examiner can normally be reached on Monday-Friday, 10AM-6PM EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Hollweg can be reached on 571-270-1739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Omar R Rojas/
Primary Examiner
Art Unit 2883

or
November 12, 2019

Examiner-Initiated Interview Summary	**Application No.** 15/855,788	**Applicant(s)** Nguyen et al.	
	Examiner Omar R Rojas	**Art Unit** 2883	**AIA (FITF) Status** No

All participants (applicant, applicant's representative, PTO personnel):

(1) Omar R. Rojas. (3) _____.

(2) Michael L. Leetzow. (4) _____.

Date of Interview: 01 November 2019.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: _____.

Issues Discussed ☐ 101 ☑ 112 ☐ 102 ☐ 103 ☐ Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 12 and 36.

Identification of prior art discussed: None.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

See Continuation Sheet.

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Omar R Rojas/ Primary Examiner, Art Unit 2883	

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner Rojas contacted Mr. Leetzow to indicate that claims 12 and 36 presented a new matter issue due to the newly proposed "different shape" limitation. Examiner Rojas asked permission from Mr. Leetzow to change the "different shape" limitations in claims 12 and 36 to "different configuration" in order to obviate the new matter issue. Mr. Leetzow agreed to this change. However, the examiner was unable to get permission from Mr. Leetzow to also cancel the different shapes subject matter from the specification.

Notice of References Cited	Application/Control No. 15/855,788	Applicant(s)/Patent Under Reexamination Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-4645295-A	02-1987	Pronovost; Paul F.	G02B6/3831	385/55
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	Art Unit
	Omar R Rojas	2883

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Checked refs. for 14/214,931	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/05/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/14/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/27/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/28/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	06/25/2019	/ORR/
Updated previous EAST search - See Search History Printout.	10/31/2019	/ORR/

/OMAR R ROJAS/ Primary Examiner.Art Unit 2883	

Senko Ex. 1014, Page 53
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	Art Unit
	Omar R Rojas	2883

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/OMAR R ROJAS/ Primary Examiner.Art Unit 2883	

Senko Ex.1014, Page 54
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S518	434373	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S519	4127	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S520	6403	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S521	57	S518 and S520	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S522	60096	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S523	16	S522 and S519	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S524	41	S521 not S523	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S525	18	ferrule.ti,ab,clm. and S520	US-PGPUB;	OR	ON	2019/10/31

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			10:19
S526	2	S525 not (S523 S524)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S527	42	S520 and ferrule	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S528	23	S527 not (S523 S524 S526)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S529	52328	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S530	119	S522 and S529	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S531	94	S530 not (S523 S524 S526 S528)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:19
S532	88	("20050281509" | "20060063436" | "20100266245" | "4111522" | "5082346" | "5093881" | "5155784" | "5276755" | "5647043" | "5689598" | "5692079" | "5838856" | "6095695" | "6422760" | "7785018").PN. OR ("2005/0281509" | "6095695" | "9086546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 10:20
S533	148	((Hiep) near2 (Nguyen)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 10:20
S534	153	((Darrell) near2 (Childers)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 10:20

S535	589	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 10:20
S536	44	((Jillcha) near2 (Wakjira)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 10:20
S537	225	((Joseph) near2 (Howard)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 10:20
S538	1018	S533 S534 S535 S536 S537	US-PGPUB; USPAT	OR	OFF	2019/10/31 10:20
S539	177	S538 and g02b6/$.cpc.	US-PGPUB; USPAT	OR	ON	2019/10/31 10:20
S540	103	S538 and ((fiber optic$3) near3 connect$3).ti,ab,clm.	US-PGPUB; USPAT	OR	ON	2019/10/31 10:20
S541	2	S540 not S539	US-PGPUB; USPAT	OR	ON	2019/10/31 10:20
S542	3620	rojas.xa,xp.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S543	847	S542 and g02b6/$.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S544	20	S543 and wafer.ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S545	54	("20020006253" | "4820169" | "4881792" | "5121454" | "5125056" | "5134679" | "5245683" | "5506922" | "5778121" | "5883995" | "5909526" | "5915058" | "5930426" | "5956444" | "5960138" | "6076975" | "6079881" | "6135644" | "6154597" | "6240228" | "6276839" | "6331079" | "6361218" | "6364536" | "6406192" | "6412986" | "6419399" | "6422760" | "6425692" | "6461053" | "6832858").PN. OR ("7073953").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 10:20
S546	117	("4526430" | "4550362" | "4647130" | "4767179" | "5082344" | "5121454" | "5125056" | "5228865" | "5257947" | "5542015" | "5619604" | "5764834" | "5845027" | "5960138" | "6007256" | "6050845" | "6076975" | "6146023" | "6331079").PN. OR ("6331079" | "6361218" | "6364536" | "6406192" | "6422760").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 10:20
S547	102	S546 not (S539 S541 S544 S545)	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 10:20
S548	355	S539 S541 S544 S545 S547	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S549	84	S532 not S548	US-PGPUB;	OR	OFF	2019/10/31

			USPAT; USOCR			10:20
S550	419	G02B6/3879.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S551	397	S550 not (S548 S549)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S552	836	S548 S549 S551	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S553	245	G02B6/3878.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S554	195	S553 not S552	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S555	21297	(protrusion projection protuberance raised) with (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S556	148	S555 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S557	93	S556 not (S552 S554)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S558	1795	385/59,71.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S559	180	G02B6/3879.cpc. and S558	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S560	116	S559 not (S552 S554 S557)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S561	1667	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO;	OR	OFF	2019/10/31 10:20

			DERWENT; IBM_TDB			
S562	3085	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S563	185	S561 and S562	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S564	53	S563 not (S552 S554 S557 S560)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S565	841	G02B6/3897.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S566	576	S565 not (S552 S554 S557 S560 S564)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S567	190	S566 and (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20
S568	332	G02B6/3897.cpc. and S562	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S569	188	S568 not (S552 S554 S557 S560 S564 S567)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S570	959	G02B6/3825.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S571	516	S570 not (S552 S554 S557 S560 S564 S567 S569)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 10:20
S572	116	("4840451").URPN.	USPAT	OR	OFF	2019/10/31 10:20
S573	2285	S552 S554 S557 S560 S564 S567 S569 S571 S572	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:20

S574	176	S523 S524 S526 S528 S531	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:21
S575	2262	S573 not S574	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 10:21
S576	1543	G02B6/3879.cpc.	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/10/31 13:10
S577	993	G02B6/3831.cpc.	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/10/31 13:11
S578	434373	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S579	4127	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S580	6403	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S581	57	S578 and S580	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S582	60096	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S583	16	S582 and S579	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12

S584	41	S581 not S583	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S585	18	ferrule.ti,ab,clm. and S580	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S586	2	S585 not (S583 S584)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S587	42	S580 and ferrule	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S588	23	S587 not (S583 S584 S586)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S589	52328	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S590	119	S582 and S589	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S591	94	S590 not (S583 S584 S586 S588)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S592	88	("20050281509" | "20060063436" | "20100266245" | "4111522" | "5082346" | "5093881" | "5155784" | "5276755" | "5647043" | "5689598" | "5692079" | "5838856" | "6095695" |	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 13:12

		"6422760" | "7785018").PN. OR ("2005/0281509" | "6095695" | "9086546").URPN.				
S593	148	((Hiep) near2 (Nguyen)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 13:12
S594	153	((Darrell) near2 (Childers)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 13:12
S595	589	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 13:12
S596	44	((Jillcha) near2 (Wakjira)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 13:12
S597	225	((Joseph) near2 (Howard)).INV.	US-PGPUB; USPAT	OR	OFF	2019/10/31 13:12
S598	1018	S593 S594 S595 S596 S597	US-PGPUB; USPAT	OR	OFF	2019/10/31 13:12
S599	177	S598 and g02b6/$.cpc.	US-PGPUB; USPAT	OR	ON	2019/10/31 13:12
S600	103	S598 and ((fiber optic$3) near3 connect$3).ti,ab,clm.	US-PGPUB; USPAT	OR	ON	2019/10/31 13:12
S601	2	S600 not S599	US-PGPUB; USPAT	OR	ON	2019/10/31 13:12
S602	3620	rojas.xa,xp.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S603	847	S602 and g02b6/$.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S604	20	S603 and wafer.ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S605	54	("20020006253" | "4820169" | "4881792" | "5121454" | "5125056" | "5134679" | "5245683" | "5506922" | "5778121" | "5883995" | "5909526" | "5915058" | "5930426" | "5956444" | "5960138" | "6076975" | "6079881" | "6135644" | "6154597" | "6240228" | "6276839" | "6331079" | "6361218" | "6364536" | "6406192" | "6412986" | "6419399" | "6422760" | "6425692" | "6461053" | "6832858").PN. OR ("7073953").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 13:12
S606	117	("4526430" | "4550362" | "4647130" | "4767179" | "5082344" | "5121454" | "5125056" | "5228865" | "5257947" | "5542015" | "5619604" | "5764834" | "5845027" | "5960138" | "6007256" | "6050845" | "6076975" | "6146023" | "6331079").PN. OR ("6331079" | "6361218" | "6364536" | "6406192" | "6422760").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 13:12
S607	102	S606 not (S599 S601 S604 S605)	US-PGPUB;	OR	OFF	2019/10/31

			USPAT; USOCR			13:12
S608	355	S599 S601 S604 S605 S607	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S609	84	S592 not S608	US-PGPUB; USPAT; USOCR	OR	OFF	2019/10/31 13:12
S610	419	G02B6/3879.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S611	397	S610 not (S608 S609)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S612	836	S608 S609 S611	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S613	245	G02B6/3878.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S614	195	S613 not S612	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S615	21297	(protrusion projection protuberance raised) with (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S616	148	S615 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S617	93	S616 not (S612 S614)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S618	1795	385/59,71.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S619	180	G02B6/3879.cpc. and S618	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12

S620	116	S619 not (S612 S614 S617)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S621	1667	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S622	3085	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S623	185	S621 and S622	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S624	53	S623 not (S612 S614 S617 S620)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S625	841	G02B6/3897.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S626	576	S625 not (S612 S614 S617 S620 S624)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S627	190	S626 and (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S628	332	G02B6/3897.cpc. and S622	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S629	188	S628 not (S612 S614 S617 S620 S624 S627)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S630	959	G02B6/3825.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12
S631	516	S630 not (S612 S614 S617 S620 S624 S627 S629)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/10/31 13:12

S632	116	("4840451").URPN.	USPAT	OR	OFF	2019/10/31 13:12
S633	2285	S612 S614 S617 S620 S624 S627 S629 S631 S632	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S634	176	S583 S584 S586 S588 S591	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S635	2431	S633 S634	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/10/31 13:12
S636	767	S577 not S635	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/10/31 13:16

EAST Search History (Interference)

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EAST Search History

EAST Search History (Prior Art)

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S353	0	(10/871406).APP.	USPAT; USOCR	OR	ON	2019/06/19 11:14
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S355	0	(13/192098).APP.	USPAT; USOCR	OR	ON	2019/06/19 11:45
S356	3	("2012/0057824").URPN.	USPAT	OR	ON	2019/06/19 11:45
S357	1	("7182523").PN.	US-PGPUB; USPAT	OR	OFF	2019/06/19 12:05
S358	43	("20020126960" | "4596436" | "5729644").PN. OR ("7182523").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/06/19 12:12
S359	87	("20050281509" | "20060063436" | "20100266245" | "4111522" | "5082346" | "5093881" | "5155784" | "5276755" | "5647043" | "5689598" | "5692079" | "5838856" | "6095695" | "6422760" | "7785018").PN. OR ("2005/0281509" | "6095695" | "9086546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 17:49
S360	145	((Hiep) near2 (Nguyen)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 17:49
S361	149	((Darrell) near2 (Childers)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 17:49
S362	574	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 17:49
S363	42	((Jillcha) near2 (Wakjira)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 17:49
S364	221	((Joseph) near2 (Howard)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 17:49
S365	994	S360 S361 S362 S363 S364	US-PGPUB; USPAT	OR	OFF	2019/06/25 17:49
S366	173	S365 and g02b6/$.cpc.	US-PGPUB; USPAT	OR	ON	2019/06/25 17:49
S367	101	S365 and ((fiber optic$3) near3 connect$3).ti,ab,clm.	US-PGPUB; USPAT	OR	ON	2019/06/25 17:49
S368	1	S367 not S366	US-PGPUB; USPAT	OR	ON	2019/06/25 17:49
S369	3535	rojas.xa,xp.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S370	827	S369 and g02b6/$.cpc.	US-PGPUB; USPAT;	OR	ON	2019/06/25 17:49

			EPO; JPO; DERWENT; IBM_TDB			
S371	20	S370 and wafer.ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S372	50	("20020006253" | "4820169" | "4881792" | "5121454" | "5125056" | "5134679" | "5245683" | "5506922" | "5778121" | "5883995" | "5909526" | "5915058" | "5930426" | "5956444" | "5960138" | "6076975" | "6079881" | "6135644" | "6154597" | "6240228" | "6276839" | "6331079" | "6361218" | "6364536" | "6406192" | "6412986" | "6419399" | "6422760" | "6425692" | "6461053" | "6832858").PN. OR ("7073953").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 17:49
S373	115	("4526430" | "4550362" | "4647130" | "4767179" | "5082344" | "5121454" | "5125056" | "5228865" | "5257947" | "5542015" | "5619604" | "5764834" | "5845027" | "5960138" | "6007256" | "6050845" | "6076975" | "6146023" | "6331079").PN. OR ("6331079" | "6361218" | "6364536" | "6406192" | "6422760").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 17:49
S374	100	S373 not (S366 S368 S371 S372)	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 17:49
S375	344	S366 S368 S371 S372 S374	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S376	83	S359 not S375	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 17:49
S377	387	G02B6/3879.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S378	365	S377 not (S375 S376)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S379	792	S375 S376 S378	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S380	239	G02B6/3878.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49

S381	193	S380 not S379	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S382	20705	(protrusion projection protuberance raised) with (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S383	143	S382 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S384	91	S383 not (S379 S381)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S385	1782	385/59,71.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S386	177	G02B6/3879.cpc. and S385	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S387	113	S386 not (S379 S381 S384)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S388	1584	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S389	2986	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S390	175	S388 and S389	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S391	52	S390 not (S379 S381 S384 S387)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S392	805	G02B6/3897.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49

S393	551	S392 not (S379 S381 S384 S387 S391)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S394	176	S393 and (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S395	313	G02B6/3897.cpc. and S389	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S396	177	S395 not (S379 S381 S384 S387 S391 S394)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S397	897	G02B6/3825.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S398	481	S397 not (S379 S381 S384 S387 S391 S394 S396)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 17:49
S399	109	("4840451").URPN.	USPAT	OR	OFF	2019/06/25 17:49
S400	2169	S379 S381 S384 S387 S391 S394 S396 S398 S399	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S401	446700	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S402	4040	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S403	6267	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S404	57	S401 and S403	US-PGPUB; USPAT;	OR	ON	2019/06/25 17:49

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S405	61594	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S406	16	S405 and S402	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S407	41	S404 not S406	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S408	18	ferrule.ti,ab,clm. and S403	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S409	2	S408 not (S406 S407)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S410	41	S403 and ferrule	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S411	22	S410 not (S406 S407 S409)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S412	50857	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49

S413	119	S405 and S412	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S414	94	S413 not (S406 S407 S409 S411)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S415	175	S406 S407 S409 S411 S414	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S416	144918	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4 smaller larger bigger greater) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S417	1967	S401 and S416	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S418	224	ferrule.ti,ab,clm. and S417	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S419	149	S418 not S415	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:49
S420	40	("7182523").URPN.	USPAT	OR	ON	2019/06/25 17:49
S421	38	("2005/0281509").URPN.	USPAT	OR	ON	2019/06/25 17:49
S422	43	("20020126960" | "4596436" | "5729644").PN. OR ("7182523").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/06/25 17:49
S424	446700	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2019/06/25 17:50

			EPO; JPO; DERWENT; IBM_TDB			
S425	4040	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S426	6267	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S427	57	S424 and S426	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S428	61594	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S429	16	S428 and S425	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S430	41	S427 not S429	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S431	18	ferrule.ti,ab,clm. and S426	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S432	2	S431 not (S429 S430)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S433	41	S426 and ferrule	US-PGPUB; USPAT;	OR	ON	2019/06/25 17:50

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S434	22	S433 not (S429 S430 S432)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S435	50857	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S436	119	S428 and S435	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S437	94	S436 not (S429 S430 S432 S434)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 17:50
S438	87	("20050281509" | "20060063436" | "20100266245" | "4111522" | "5082346" | "5093881" | "5155784" | "5276755" | "5647043" | "5689598" | "5692079" | "5838856" | "6095695" | "6422760" | "7785018").PN. OR ("2005/0281509" | "6095695" | "9086546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 21:07
S439	145	((Hiep) near2 (Nguyen)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 21:07
S440	149	((Darrell) near2 (Childers)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 21:07
S441	574	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 21:07
S442	42	((Jillcha) near2 (Wakjira)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 21:07
S443	221	((Joseph) near2 (Howard)).INV.	US-PGPUB; USPAT	OR	OFF	2019/06/25 21:07
S444	994	S439 S440 S441 S442 S443	US-PGPUB; USPAT	OR	OFF	2019/06/25 21:07
S445	173	S444 and g02b6/$.cpc.	US-PGPUB; USPAT	OR	ON	2019/06/25 21:07
S446	101	S444 and ((fiber optic$3) near3 connect$3).ti,ab,clm.	US-PGPUB; USPAT	OR	ON	2019/06/25 21:07
S447	1	S446 not S445	US-PGPUB; USPAT	OR	ON	2019/06/25 21:07

S448	3535	rojas.xa,xp.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S449	827	S448 and g02b6/$.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S450	20	S449 and wafer.ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S451	50	("20020006253" | "4820169" | "4881792" | "5121454" | "5125056" | "5134679" | "5245683" | "5506922" | "5778121" | "5883995" | "5909526" | "5915058" | "5930426" | "5956444" | "5960138" | "6076975" | "6079881" | "6135644" | "6154597" | "6240228" | "6276839" | "6331079" | "6361218" | "6364536" | "6406192" | "6412986" | "6419399" | "6422760" | "6425692" | "6461053" | "6832858").PN. OR ("7073953").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 21:07
S452	115	("4526430" | "4550362" | "4647130" | "4767179" | "5082344" | "5121454" | "5125056" | "5228865" | "5257947" | "5542015" | "5619604" | "5764834" | "5845027" | "5960138" | "6007256" | "6050845" | "6076975" | "6146023" | "6331079").PN. OR ("6331079" | "6361218" | "6364536" | "6406192" | "6422760").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 21:07
S453	100	S452 not (S445 S447 S450 S451)	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 21:07
S454	344	S445 S447 S450 S451 S453	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S455	83	S438 not S454	US-PGPUB; USPAT; USOCR	OR	OFF	2019/06/25 21:07
S456	387	G02B6/3879.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S457	365	S456 not (S454 S455)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S458	792	S454 S455 S457	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2019/06/25 21:07

			DERWENT; IBM_TDB			
S459	239	G02B6/3878.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S460	193	S459 not S458	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S461	20705	(protrusion projection protuberance raised) with (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S462	143	S461 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S463	91	S462 not (S458 S460)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S464	1782	385/59,71.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S465	177	G02B6/3879.cpc. and S464	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S466	113	S465 not (S458 S460 S463)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S467	1584	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S468	2986	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S469	175	S467 and S468	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S470	52	S469 not (S458 S460 S463 S466)	US-PGPUB; USPAT; EPO; JPO;	OR	OFF	2019/06/25 21:07

			DERWENT; IBM_TDB			
S471	805	G02B6/3897.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S472	551	S471 not (S458 S460 S463 S466 S470)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S473	176	S472 and (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S474	313	G02B6/3897.cpc. and S468	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S475	177	S474 not (S458 S460 S463 S466 S470 S473)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S476	897	G02B6/3825.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S477	481	S476 not (S458 S460 S463 S466 S470 S473 S475)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/06/25 21:07
S478	109	("4840451").URPN.	USPAT	OR	OFF	2019/06/25 21:07
S479	2169	S458 S460 S463 S466 S470 S473 S475 S477 S478	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S480	446700	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S481	4040	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S482	6267	(projection protuberance protrusion key) near2 (differ$2 different) adj2	US-PGPUB; USPAT;	OR	ON	2019/06/25 21:07

		(width thickness size$3 length)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S483	57	S480 and S482	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S484	61594	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S485	16	S484 and S481	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S486	41	S483 not S485	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S487	18	ferrule.ti,ab,clm. and S482	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S488	2	S487 not (S485 S486)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S489	41	S482 and ferrule	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S490	22	S489 not (S485 S486 S488)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07

S491	50857	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S492	119	S484 and S491	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S493	94	S492 not (S485 S486 S488 S490)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S494	175	S485 S486 S488 S490 S493	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S495	144918	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4 smaller larger bigger greater) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S496	1967	S480 and S495	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S497	224	ferrule.ti,ab,clm. and S496	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S498	149	S497 not S494	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S499	40	("7182523").URPN.	USPAT	OR	ON	2019/06/25 21:07
S500	38	("2005/0281509").URPN.	USPAT	OR	ON	2019/06/25 21:07

S501	43	("20020126960" | "4596436" | "5729644").PN. OR ("7182523").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/06/25 21:07
S502	2488	S479 S485 S486 S488 S490 S493 S498 S499 S500 S501	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S503	446700	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S504	4040	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S505	6267	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S506	57	S503 and S505	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S507	61594	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S508	16	S507 and S504	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S509	41	S506 not S508	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S510	18	ferrule.ti,ab,clm. and S505	US-PGPUB; USPAT;	OR	ON	2019/06/25 21:07

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S511	2	S510 not (S508 S509)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S512	41	S505 and ferrule	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S513	22	S512 not (S508 S509 S511)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S514	50857	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S515	119	S507 and S514	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S516	94	S515 not (S508 S509 S511 S513)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07
S517	175	S508 S509 S511 S513 S516	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/25 21:07

EAST Search History (Interference)

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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $80 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $420 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	09/24/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 17	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/CHRISTINE MOLLISH/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/30EFS (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	15/855,788	Filing Date	2017-12-27	Docket Number (if applicable)	USCO-053-02	Art Unit	2883
First Named Inventor	Hiep V. Nguyen			Examiner Name	Omar R ROJAS		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☒ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☐ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No _____

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

PTO/SB/30EFS (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Michael L Leetzow/	Date (YYYY-MM-DD)	2019-09-24
Name	Michael Leetzow	Registration Number	35932

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	15855788
Filing Date:	27-Dec-2017
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Filer:	MICHAEL LEETZOW
Attorney Docket Number:	USCO-053-02

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $0 paid	1253	1	1400	1400
Miscellaneous:				
RCE- 1ST REQUEST	1801	1	1300	1300
		Total in USD ($)		**2700**

Electronic Acknowledgement Receipt

EFS ID:	37254717
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	24-SEP-2019
Filing Date:	27-DEC-2017
Time Stamp:	12:53:46
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$2700
RAM confirmation Number	E20199NC54286962
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Extension of Time	EOTSeptUSCO05302.pdf	53300 a91e8967109d039a1e0503e48ccd052113f7238c	no	1
Warnings:					
Information:					
2	Amendment Submitted/Entered with Filing of CPA/RCE	USCO05302September2019.pdf	88388 2979e8ba9777c35d1840c8a3c6f290239b8f340e	no	8
Warnings:					
Information:					
3	Request for Continued Examination (RCE)	USCO-053-02_USPTO_SB30_20190924_124139-2.pdf	1364390 6a3988751cfd0e5374afb9eb1b7d34a52715149c	no	3
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	32254 c0b2ce441541ad93e525c89ec0f66d0b235c4709	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1538332		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

PETITION FOR AN EXTENSION OF TIME

Applicant hereby petitions for a three-month extension of time to respond to an Office Action mailed on April 2, 2019, extending the time in which to respond to October 2, 2019.

A fee of $1400.00 for the three-month extension of time is submitted herewith.

Respectfully submitted,

/Michael L. Leetzow/
Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct.
Sanford, FL 32771
Telephone: 407/302-9970

Date: September 24, 2019

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Mail Stop AF
Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

AMENDMENT WITH RCE

Dear Sir:

Further to the Request for Consideration under the After Final Consideration Pilot Program 2.0 filed on June 14, 2019, the Advisory Action of July 1, 2019, and with the Petition for an Extension of Time and fee and the Request for Continued Examination filed concurrently herewith, Applicant amends the application and responds as follows:

IN THE SPECIFICATION:

Please replace paragraph [0026] with the following revised paragraph:

As illustrated in Figs. 5A-C, the ferrule holder **300** has a main body **302** with a central opening **304** that extends from a first end **306** to a second end **308** to house the fiber optic ferrules **12**. The first end **306** has an opening **310** therein to allow access to the ferrule **12**. The ferrule **12** may or may not exit the main body **302**. That is, the ferrule **12** may extend beyond the main body **302** as shown in the figures or it may be flush with the first end **306**. second end 308 allows for the optical fibers **14** (shown in Fig. 5A and 5B to have a boot and a covering) to exit the ferrule holder **300**. The ferrule holder **300** has a top surface **312** and a bottom surface **314**, with a cantilevered latch **316** to engage the plug **200**. The top surface **312** has a projection **320** and the bottom surface **314** has a projection **322**. The projections **320,322** are preferably elongated and have a chamfered front end. The projections **320,322** are used to engage grooves in the plug **200** and the adapter **100** to position the ferrule holders **300** with precision in the adapter **100**. The projection **320** has a width that is different that the width of projection **322** so as to act as a key in inserting the ferrule holder **300** in the plug 200. While the projection **320** is wider than projection **322**, it could be opposite in that projection **320** is more narrow than projection **322**. Thus, the projections **320** and **322** have different shapes or configurations. The projections **320,322** are preferably on the top and the bottom surfaces **312,314** of the ferrule holder **300** to allow, as illustrated below, more ferrule holders to be inserted into the adapter **100** and the plug **200**. The projections **320,322** are used to position the ferrules **12** in the adapter in the x and y directions, eliminating the need for side walls to position the ferrule holders **300** and the ferrules **12**.

IN THE CLAIMS:

Claims 1-11. Canceled.

12. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body to engage corresponding grooves in an adapter, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different ~~configuration~~ shape than the second projection, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces; and

a single cantilevered latch attached to one of the top surface and the bottom surface rearwardly of and unconnected to the first projection and the second projection.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14 -21. Canceled.

22. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

23. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends along a length of the ferrule holder.

24. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections has a chamfered front end.

25. (Previously Presented) The ferrule holder according to claim 12, wherein one of the projections has at least one dimension that is different than the other projection.

26. Canceled.

27. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a width of the projection.

28. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a height of the projection.

29. (Previously Presented) The ferrule holder according to claim 12, wherein the projections slidingly engage a corresponding groove in a plug.

30. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a vertical side surface to align the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

31. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a horizontal top surface to align the ferrule holder with a horizontal wall of

a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

32. (Currently Amended) A ferrule holder comprising:

a main body;

a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, ~~a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter,~~ the projections extending along a length of the main body at least partially in a front half of the main body, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces; and

a single cantilevered latch attached to one of the top surface and the bottom surface rearwardly of and unconnected to the first projection and the second projection.

33. (Previously Presented) The ferrule holder according to claim 32, wherein one of the projections is on a first outside surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second outside surface.

34. (Previously Presented) The ferrule holder according to claim 33, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

35. (Previously Presented) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

36. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, ~~the first and second outside surfaces being on opposite sides of the main body~~, wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces, the first projection having a different ~~configuration~~ shape than the second projection and the projections having surfaces to the control movement of the main body relative ~~to the~~ to an adapter; and

a single cantilevered latch attached to one of the top surface and the bottom surface rearwardly of and unconnected to the first projection and the second projection.

37. (New) The ferrule holder according to claim 12, wherein the first and second projections each have two side walls, at least one of the side walls from the first projection being offset in a lateral direction from each of the side walls of the second projection.

REMARKS

In the above-referenced Advisory Action, the Examiner indicated that the claim 12 amendment was new matter because the specification did not include the term "different shape;" that the combination of Cox and Katoh were relevant to at least claim 12; and that the combination of Jones and Katoh was relevant to at least claim 12.

In this amendment, Applicant has amended the specification to clarify the "different shape" language that is inserted in the claims; further defined the sides of the main body; and added that the cantilevered latch is attached to one of the top surface and bottom surface and unconnected to the projections.

Applicant has amended the specification to add "different shapes or configurations" in paragraph [0026]. This addition follows a description of the projections and providing a further description thereof. Applicant asserts that this additional language is not new matter since it flows from the prior sentences. As such, applicant asserts that the specification, and the figures, provide support for this claim term.

Applicant has also amended the claims to require that the cantilevered latch be attached to one of the top surface and bottom surface of the main body and rearwardly therefrom. The new amendments also require that the cantilevered latch be unconnected from the projections. This element is supported in FIGS. 2, 5A, and 5B. The Examiner has alleged that Jones teaches "a latch arm (85) with a projection (89) that could be formed on both short sides (86) and (88) of a main plug body (80). In the examiner's opinion, it would have been obvious to modify the projections (89) of Jones to have different shapes or widths in view of Katoh." July 1, 2019, Advisory Action. However, Jones indicates that element 89 (the projection) is a forward portion of the latch 85. Col. 4, lines 4-6. This fact would also be true even if there were multiple latches and multiple geometries as discussed in column 4. As such, the latch and the projections are one in the same. Since the claims require that the latch and the projection be unconnected or separate, the Jones reference, alone or in combination with Katoh, fails to disclose or suggest the claimed invention.

Applicant asserts that Katoh is not applicable to the present invention. The projections dislosed therein are on the long side and not the short side. It is not possible to move those to the short side given the environment they are used in, including the adapter in which the connectors are inserted. To move the projections, then the adapter would have to be altered and this would require the reconstruction of the adapter and/or a change in the principle of operation of the device and its associated pieces. Such a change is therefore not allowed.

Applicant asserts that since all of the independent claims have the elements discussed above, all of the pending claims are allowable and requests this application be passed to issue.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

/Michael L. Leetzow/

Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct
Sanford, FL 32771
Telephone: 407/302-9970

Date: September 24, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 07/01/2019

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
07/01/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
michael@leetzow.com
ssengupta@usconec.com

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 15/855,788	**Applicant(s)** Nguyen et al.	
	Examiner Omar R Rojas	**Art Unit** 2883	**AIA (FITF) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 June 2019 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☑ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☑ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection.The current period for reply expires ____ months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANTS FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37CFR 41.37(a).

AMENDMENTS

3. ☑ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☑ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☑ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: See attached Interview Summary (See 37CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicants reply has overcome the following rejection(s): _____
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☑ For purposes of appeal, the proposed amendment(s):(a) ☑ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☑ Other: PTO-2323, PTO-413B, PTO-892.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed:_____.
    Claim(s) objected to:_____.
    Claim(s) rejected:12-13,15-17 and 22-36.
    Claim(s) withdrawn from consideration:_____.

/Omar R Rojas/ Primary Examiner, Art Unit 2883	

Examiner-Initiated Interview Summary	**Application No.** 15/855,788	**Applicant(s)** Nguyen et al.	
	Examiner Omar R Rojas	**Art Unit** 2883	**AIA (FITF) Status** No

All participants (applicant, applicant's representative, PTO personnel):

(1) Omar R. Rojas. (3) _____.

(2) Michael L. Leetzow. (4) _____.

Date of Interview: 21 June 2019.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: _____.

Issues Discussed ☐ 101 ☑ 112 ☐ 102 ☑ 103 ☐ Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 12,32 and 36.

Identification of prior art discussed: Pub. No. US 2005/0281509 A1 ("Cox"); Pat. No. 9,086,546 ("Jones"); Pat. No. 6,406,192 ("Chen"); Pub. No. US 2012/0057824 A1 ("Katoh")..

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

See Continuation Sheet.

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Omar R Rojas/ Primary Examiner, Art Unit 2883	

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner Rojas discussed the Cox reference with Mr. Leetzow. Mr. Leetzow pointed out that Cox only showed one projection in his FIG. 5. Examiner Rojas indicated that it would have been obvious to provide a second projection to Cox to obtain the invention of claim 32. Mr. Leetzow also discussed the Chen reference cited in the previous Office action. Examiner Rojas indicated that Chen was no longer considered applicable to the after final claims as a primary reference. Katoh was also discussed and the possibility of combining Katoh with Cox in order to obtain the invention of claim 12. Mr. Leetzow argued that this would have been hindsight. Mr. Leetzow indicated he was willing to cancel independent claim 32 in order to overcome Cox. During a follow up telephone interview on June 26, Examiner Rojas notified Mr. Leetzow that claim 12 presented new matter because the specification as originally filed did not adequately support the "different shape" claim limitation. Examiner Rojas also indicated that a new reference to Jones was considered applicable to at least claim 12. This is because the Jones reference taught a latch arm (85) with a projection (89) that could be formed on both short sides (86) and (88) of a plug main body (80). In the examiner's opinion, it would have been obvious to modify the projections (89) of Jones to have different shapes or widths in view Katoh.

Notice of References Cited	Application/Control No. 15/855,788	Applicant(s)/Patent Under Reexamination Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20050281509-A1	12-2005	Cox, Larry R.	G02B6/3825	385/59
*	B	US-9086546-B2	07-2015	Jones; Ashley Wesley	G02B6/3825	1/1
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

AFCP 2.0 Decision

Application No.	Applicant(s)	
15/855,788	Nguyen et al.	
Examiner	**Art Unit**	**AIA (FITF) Status**
Omar R Rojas	2883	No

This is in response to the After Final Consideration Pilot request filed 14 June 2019.

1. **Improper Request** – The AFCP 2.0 request is improper for the following reason(s) and the after final amendment submitted with the request will be treated under pre-pilot procedure.

   ☐ An AFCP 2.0 request form PTO/SB/434 (or equivalent document) was not submitted.

   ☐ A non-broadening amendment to at least one independent claim was not submitted.

   ☐ A proper AFCP 2.0 request was submitted in response to the most recent final rejection.

   ☐ Other: _____

2. **Proper Request**

   A. After final amendment submitted with the request will not be treated under AFCP 2.0.
   The after final amendment cannot be reviewed and a search conducted within the guidelines of the pilot program.

   ☐ The after final amendment will be treated under pre-pilot procedure.

   B. Updated search and/or completed additional consideration.
   The examiner performed an updated search and/or completed additional consideration of the after final amendment within the time authorized for the pilot program. The result(s) of the updated search and/or completed additional consideration are:

   ☐ 1. All of the rejections in the most recent final Office action are overcome and a Notice of Allowance is issued herewith.

   ☐ 2. The after final amendment would not overcome all of the rejections in the most recent final Office action . See attached interview summary for further details.

   ☐ 3. The after final amendment was reviewed, and it raises a new issue(s). See attached interview summary for further details.

   ☑ 4. The after final amendment raises new issues, but would overcome all of the rejections in the most recent final Office action. A decision on determining allowability could not be made within the guidelines of the pilot. See attached interview summary for further details, including any newly discovered prior art.

   ☐ 5. Other: _____

   Examiner Note: Please attach an interview summary when necessary as described above.

Senko Ex. 1014, Page 105
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

06/11/2019

DO NOT ENTER: /ORR/

06/26/2019
DO NOT ENTER: /ORR/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	Group Art Unit:	2883
Serial No.:	15/855,788	Examiner:	Omar R ROJAS
Filing Date:	December 27, 2017		
Title:	Alignment Adapter and Alignment Design for a Connector Therefor		

Mail Stop AF
Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

AMENDMENT AFTER FINAL

Dear Sir:

In response to the final Office Action mailed on April 2, 2019, Applicant amends the application and responds as follows:

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $80 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $420 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	06/14/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 19	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/TRACEY T BELL/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 06/14/2019

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
06/14/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
michael@leetzow.com
ssengupta@usconec.com

Advisory Action Before the Filing of an Appeal Brief	Application No. 15/855,788	Applicant(s) Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	AIA (FITF) Status No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 June 2019 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☑ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires ____ months from the mailing date of the final rejection.
   b) ☑ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection.The current period for reply expires ____ months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANTS FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37CFR 41.37(a).

AMENDMENTS

3. ☑ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☑ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: See Continuation Sheet (See 37CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicants reply has overcome the following rejection(s): _____
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☑ For purposes of appeal, the proposed amendment(s):(a) ☑ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed:_____.
    Claim(s) objected to:_____.
    Claim(s) rejected:12-13,15-17 and 22-36.
    Claim(s) withdrawn from consideration:_____.

/Omar R Rojas/ Primary Examiner, Art Unit 2883	

Continuation of 3. NOTE: The proposed claim limitations "the first projection having a different shape than the second projection" and "the width of the top and bottom surfaces being smaller than the width of the two side surfaces" were not previously claimed and present new issues requiring further search and/or consideration. Applicant(s) is advised that the proposed claim amendments filed 06/01/2019 may still be eligible for consideration under the After Final Consideration Program 2.0. See https://www.uspto.gov/patent/initiatives/after-final-consideration-pilot-20 for further details.

06/11/2019

DO NOT ENTER: /ORR/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Mail Stop AF
Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

AMENDMENT AFTER FINAL

Dear Sir:

In response to the final Office Action mailed on April 2, 2019, Applicant amends the application and responds as follows:

Doc Code: A.NE.AFCP
Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0

Practitioner Docket No.:	Application No.:	Filing Date:
USCO-053-02	15/855,788	2017-12-27
First Named Inventor:	**Title:**	
Hiep V. Nguyen	Alignment Adapter and Alignment Design for a Connector Therefor	

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.

1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (*e.g.*, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).
2. The above-identified application contains an outstanding final rejection.
3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect.
4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection.
5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response.
6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web).
7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.]
8. By filing this certification and request, applicant acknowledges the following:
    - Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0.
    - The examiner will verify that the AFCP 2.0 submission is compliant, *i.e.*, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions:
        - The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, by mailing an advisory action.
        - If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview.
            - The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate.
            - If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.

Signature	Date
/Michael L. Leetzow/	2019-06-14
Name (Print/Typed) Michael Leetzow	**Practitioner Registration No.** 35932

***Note**: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

☑ * Total of 1 forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	36300162
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	14-JUN-2019
Filing Date:	27-DEC-2017
Time Stamp:	10:58:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	After Final Consideration Program Request	USCO-053-02_USPTO_SB434_20190614_104425.pdf	227222 6a9cd189cbf912f83277109d17ceccb8c4a2a790	no	2

Warnings:

Information:					
2	Response After Final Action	AfterFinalPILOTUSCO05302.pdf	101381 6fe55cc3686c70dfb7296c51db7b0b34ccb69195	no	11
Warnings:					
Information:					
			Total Files Size (in bytes):	328603	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

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Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

AMENDMENT AFTER FINAL

Dear Sir:

In response to the final Office Action mailed on April 2, 2019, and the Advisory Action of June 14, 2019, and along with a Certification and Request for Consideration under the After Final Consideration Pilot Program 2.0, Applicant amends the application and responds as follows:

IN THE CLAIMS:

Claims 1-11. Canceled.

12. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body to engage corresponding grooves in an adapter, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different ~~configuration~~ shape than the second projection, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14. Canceled.

15. (Previously Presented) The ferrule holder according to claim 12, further comprising a cantilevered latch attached to one of the outside surfaces of the main body between the second end and one of the projections and extending from a center portion of the main body towards the second end.

16. Canceled.

17. (Previously Presented) The ferrule holder according to claim 16, further comprising a cantilevered latch attached to the main body and wherein the cantilevered latch and the projections are attached to one of the top surface and the bottom surface.

Claims 18-21. Canceled.

22. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

23. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends along a length of the ferrule holder.

24. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections has a chamfered front end.

25. (Previously Presented) The ferrule holder according to claim 12, wherein one of the projections has at least one dimension that is different than the other projection.

26. Canceled.

27. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a width of the projection.

28. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a height of the projection.

29. (Previously Presented) The ferrule holder according to claim 12, wherein the projections slidingly engage a corresponding groove in a plug.

30. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a vertical side surface to align the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

31. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a horizontal top surface to align the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

32. (Currently Amended) A ferrule holder comprising:

a main body;

a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, ~~a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter,~~ the projections extending along a length of the main body at least partially in a front half of the main body, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces.

33. (Previously Presented) The ferrule holder according to claim 32, wherein one of the projections is on a first outside surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second outside surface.

34. (Previously Presented) The ferrule holder according to claim 33, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

35. (Previously Presented) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

36. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, ~~the first and second outside surfaces being on opposite sides of the main body~~, wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces, the first projection having a different ~~configuration~~ shape than the second projection and the projections having surfaces to the control movement of the main body relative ~~to the~~ to an adapter.

37. (New) The ferrule holder according to claim 12, wherein the first and second projections each have two side walls, at least one of the side walls from the first projection being offset in a lateral direction from each of the side walls of the second projection.

REMARKS

In the above-referenced Office Action, the Examiner rejected claim 36 under 35 U.S.C. § 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor or, for pre-AIA, the applicant regards as the invention; rejected claims 12, 13, 15-17, 22-31, and 36 under 35 U.S.C. § 102(a)(l) as being anticipated by Chen et al. (U.S. Patent No. 6,406,192); and rejected claims 12, 13, and 22-26 under 35 U.S.C. § 102(a)(l) as being anticipated by Katoh (U.S. Patent Publication No. 2012/0057824). In the June 14, 2019, Advisory Action, the Examiner indicated that the shape and width amendments raised new issues requiring additional search. Applicant asserts that the shape was present as configuration and the width of the projections were claimed at least in claim 27. However, to continue to push this application to final resolution, Applicant is submitting the present amendment under the pilot program. The remarks below are the same as those submitted with the June 1, 2019 response since that response was not entered into the file.

In this amendment, Applicant has amended independent claims 12, 32, and 36; and canceled claims 16 and 26.

Applicant notes that the Examiner has interpreted "configuration" as to mean "the arrangement of parts of something." Such an interpretation is not what was meant by in the amendment, but rather the shape of the projections. As discussed below, such an interpretation does not withstand scrutiny. However, Applicant has amended the claims to specify that the projections can have different shapes. As illustrated in FIGS. 5A and 5B, one of the projections is wider than the other. Thus, the shape of one is different from the shape of the other. In Chen et al., the projections seemingly are the same. Thus, the claims that include projections of a different shape (claims 12 and 36) are allowable over Chen et al.

The Examiner rejected claim 36 under 35 U.S.C. § 112(b) indicating that "adapter" didn't have an antecedent basis. Applicant has amended claim 36 so that there is no need for an antecedent basis.

The Examiner then rejected claims 12, 13, 15-17, 22-31, and 36 under 35 U.S.C. § 102(a)(l) as being anticipated by Chen et al. In rejecting the claims, the Examiner asserted that a definition of "configuration" covered the "arrangement of parts of something" and the claims covered an adapter under a broadest reasonable interpretation. Applicant disagrees on both counts, but has also amended the claims to further prosecution.

First, the Examiner has indicated that having one projection on a first side and a second projection on a second side means that the two projections have different configurations. Applicant asserts that this is incorrect for two reasons: 1) the definition used by the Examiner does not support the Examiner's assertion, and 2) application of that definition to the claimed elements does not make sense given that the two projections are recited as being on different sides.

Turning to 1), the definition recited by the Examiner is that configuration is the arrangement of parts of something. Applicant asserts that the "parts of something" means the parts of the projections themselves and not the location. Thus, the configuration concerns the parts of the projection and the arrangement of parts of the projection relative to other parts of the configuration - not where the projections are located. Using the Examiner's interpretation, there could not be two objects with the same configuration because no two objects can occupy the same space simultaneously. This is clearly not correct - many objects have the same configuration even though they are located in different locations.

Addressing 2), the claim requires that the two projections be on opposite sides of the main body and then additionally requires that the projections have different configurations. The Examiner's interpretation of "configuration" renders at least a portion of the claim superfluous, which is not permitted. The dependent claims also further limit the configuration of the projections and those further limitations do not involve the location on the opposing sides. Thus, the Examiner's interpretation of "configuration" is unreasonable.

Second, the interpretation of the claims under a broadest reasonable interpretation scheme is the broadest interpretation *in light of* the specification. See In re Smith Int'l, Inc., 871 F.3d 1375 (Fed. Cir. 2017) where the Federal Circuit indicated that the Patent Office was

not to unreasonably construct the claims. The specification clearly indicates that the ferrule holder holds a fiber optic ferrule and not another object that also contains a ferrule. The Examiner admitted that the reference specifies that the ferrule holders are elements 38/70 as asserted by the Applicant in prior responses. The Examiner then broadened, unreasonably, the definition of ferrule holder to include an adapter. Applicant admitted in the prior response that multiple ferrules could be located within the opening - but the reference clearly shows that the ferrules would have to be within other structures to be held there. Applicant did not admit that only ferrules could be located within the opening. Using the Examiner's logic, the adapter 36 does not "hold" ferrules without the additional struture because they would fall out as there is no structure in the adapter "to retain the fiber optic ferrule therein" as required by the claim.

Applicant asserts that Chen et al. fails to disclose or suggest the claimed invention as noted above. However, Applicant has amended the claims the further distinguish the claims. First, Applicant has amended claims 12 and 36 to indicate that the shape of projections are different. Thus, these claims are allowable over Chen et al. since it seems from the reference that they are same.

Applicant has also amended claims 12, 32 and 36 to clarify the location of the projections. The projections are located on surfaces of the ferrule holder that are smaller in width. The ferrule holder in these claims has four surfaces: a top surface, a bottom surface and two side surfaces. The top and bottom surfaces have a smaller width than the side surfaces. See FIG. 5C. Applicant is aware that the labels of top and bottom may altered in any applied reference, but the projections are located on the narrower of the sides. For example, in Katoh the projections may be labeled as being on the top and bottom, but they are not the narrower surfaces but the wider surfaces. See FIG. 9.

Applicant has canceled claim 16 as those limitations have been added to claim 12 as noted above.

With regard to claim 15, the Examiner alleged that the cantilevered latch extends from the center portion toward the second end. Clearly latch 122 extends toward the first end 46a. For this additional reason, claim 15 is allowable.

The Examiner alleged that with respect to claims 25, 27, and 28 the projections 48 may have differences that correspond to the elements in these claims. Applicant submits that the Examiner does not have sufficient information from the reference to make such allegations. Only one of the projections 48 is illustrated in the figures and the specification does not discuss the structure of the projection 48. As such, the Examiner must withdraw this rejection.

Lastly for Chen et al. and with regard to claims 30 and 31, element 48 is identified as an alignment rib and the alignment ribs specifically allow for misalignment in two different directions. See col. 5, lines 42-67. Thus, they cannot align the ferrule to control the horizontal and vertical directions of the ferrule holder to the adapter. For this additional reason, these claims are allowable.

Finally, the Examiner rejected claims 12, 13, and 22-26 under 35 U.S.C. § 102(a)(l) as being anticipated by Katoh. As noted above, the independent claims all require that the projections are on the sides with the smaller width. That is the opposite from the projections in Katoh. The purpose behind the projections being on different sides is due to a number of factors. First, the claimed invention has a smaller footprint and allows for a higher density of fiber optic ferrules in a given space. This also means that there needs to be as little space between the fiber optic ferrules as possible, which is not provided for in Katoh.

Applicant also asserts that one of skill in the art would not move the projections to the other sides as that is where the latch is in the adapter in Katoh. Thus, one would have to re-engineer the connector and the adapter to move the projections. Such a reconstruction of the device is not allowed. Thus, the rejected claims are allowable over this reference as well.

Applicant has added new claim 37 to further define the relative locations of the projections relative to one another. The claim is allowable at least by way of its dependence on claim 12. Support for the claim can be found in FIG. 5C, among others.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

/Michael L. Leetzow/
Michael L. Leetzow
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Sanford, FL 32771
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Date: June 14, 2019

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	14 minus 20 =	* 0		x $80 =	0
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	* 0		x $420 =	0
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	0

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	06/01/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 18	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/GERALDINE L STANLEY/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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EFS ID:	36175779
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	01-JUN-2019
Filing Date:	27-DEC-2017
Time Stamp:	16:38:00
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response After Final Action	AfterFinalUSCO05302.pdf	99745 dc2cf23a079b7a53780f0904783b9a6f3edada16	no	10

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

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AMENDMENT AFTER FINAL

Dear Sir:

In response to the final Office Action mailed on April 2, 2019, Applicant amends the application and responds as follows:

IN THE CLAIMS:

Claims 1-11. Canceled.

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a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body to engage corresponding grooves in an adapter, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different ~~configuration~~ shape than the second projection, and wherein the first outside surface is a top surface, the second outside surface is a bottom surface and the main body also has two side surfaces, each of the surfaces having a width, the width of the top and bottom surfaces being smaller than the width of the two side surfaces.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14. Canceled.

15. (Previously Presented) The ferrule holder according to claim 12, further comprising a cantilevered latch attached to one of the outside surfaces of the main body between the second end and one of the projections and extending from a center portion of the main body towards the second end.

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Claims 18-21. Canceled.

22. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

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34. (Previously Presented) The ferrule holder according to claim 33, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

35. (Previously Presented) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

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REMARKS

In the above-referenced Office Action, the Examiner rejected claim 36 under 35 U.S.C. § 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor or, for pre-AIA, the applicant regards as the invention; rejected claims 12, 13, 15-17, 22-31, and 36 under 35 U.S.C. § 102(a)(l) as being anticipated by Chen et al. (U.S. Patent No. 6,406,192); and rejected claims 12, 13, and 22-26 under 35 U.S.C. § 102(a)(l) as being anticipated by Katoh (U.S. Patent Publication No. 2012/0057824).

In this amendment, Applicant has amended independent claims 12, 32, and 36; and canceled claims 16 and 26.

Applicant notes that the Examiner has interpreted "configuration" as to mean "the arrangement of parts of something." Such an interpretation is not what was meant by in the amendment, but rather the shape of the projections. As discussed below, such an interpretation does not withstand scrutiny. However, Applicant has amended the claims to specify that the projections can have different shapes. As illustrated in FIGS. 5A and 5B, one of the projections is wider than the other. Thus, the shape of one is different from the shape of the other. In Chen et al., the projections seemingly are the same. Thus, the claims that include projections of a different shape (claims 12 and 36) are allowable over Chen et al.

The Examiner rejected claim 36 under 35 U.S.C. § 112(b) indicating that "adapter" didn't have an antecedent basis. Applicant has amended claim 36 so that there is no need for an antecedent basis.

The Examiner then rejected claims 12, 13, 15-17, 22-31, and 36 under 35 U.S.C. § 102(a)(l) as being anticipated by Chen et al. In rejecting the claims, the Examiner asserted that a definition of "configuration" covered the "arrangement of parts of something" and the claims covered an adapter under a broadest reasonable interpretation. Applicant disagrees on both counts, but has also amended the claims to further prosecution.

First, the Examiner has indicated that having one projection on a first side and a second projection on a second side means that the two projections have different

configurations. Applicant asserts that this is incorrect for two reasons: 1) the definition used by the Examiner does not support the Examiner's assertion, and 2) application of that definition to the claimed elements does not make sense given that the two projections are recited as being on different sides.

Turning to 1), the definition recited by the Examiner is that configuration is the arrangement of parts of something. Applicant asserts that the "parts of something" means the parts of the projections themselves and not the location. Thus, the configuration concerns the parts of the projection and their arrangement relative to other parts of the configuration - not where the projections are located. Using the Examiner's interpretation, there could not be two objects with the same configuration because no two objects can occupy the same space simultaneously. This is clearly not correct - many objects have the same configuration even though they are located in different locations.

Addressing 2), the claim requires that the two projections be on opposite sides of the main body and then additionally requires that the projections have different configurations. The Examiner's interpretation of "configuration" renders at least a portion of the claim superfluous, which is not permitted. The dependent claims also further limit the configuration of the projections and those further limitations do not involve the location on the opposing sides. Thus, the Examiner's interpretation of "configuration" is unreasonable.

Second, the interpretation of the claims under a broadest reasonable interpretation scheme is the broadest interpretation *in light of* the specification. See In re Smith Int'l, Inc., 871 F.3d 1375 (Fed. Cir. 2017) where the Federal Circuit indicated that the Patent Office was not to unreasonably construct the claims. The specification clearly indicates that the ferrule holder holds a fiber optic ferrule and not another object that also contains a ferrule. The Examiner admitted that the reference specifies that the ferrule holders are elements 38/70 as asserted by the Applicant in prior responses. The Examiner then broadened, unreasonably, the definition of ferrule holder to include an adapter. Applicant admitted in the prior response that multiple ferrules could be located within the opening - but the reference clearly shows that the ferrules would have to be within other structures to be held there. Applicant

did not admit that only ferrules could be located within the opening. Using the Examiner's logic, the adapter 36 does not "hold" ferrules without the additional struture because they would fall out as there is no structure in the adapter "to retain the fiber optic ferrule therein" as required by the claim.

Applicant asserts that Chen et al. fails to disclose or suggest the claimed invention as noted above. However, Applicant has amended the claims the further distinguish the claims. First, Applicant has amended claims 12 and 36 to indicate that the shape of projections are different. Thus, these claims are allowable over Chen et al. since it seems from the reference that they are same.

Applicant has also amended claims 12, 32 and 36 to clarify the location of the projections. The projections are located on surfaces of the ferrule holder that are smaller in width. The ferrule holder in these claims has four surfaces: a top surface, a bottom surface and two side surfaces. The top and bottom surfaces have a smaller width than the side surfaces. See FIG. 5C. Applicant is aware that the labels of top and bottom may altered in any applied reference, but the projections are located on the narrower of the sides. For example, in Katoh the projections may be labeled as being on the top and bottom, but they are not the narrower surfaces but the wider surfaces. See FIG. 9.

Applicant has canceled claim 16 as those limitations have been added to claim 12 as noted above.

With regard to claim 15, the Examiner alleged that the cantilevered latch extends from the center portion toward the second end. Clearly latch 122 extends toward the first end 46a. For this additional reason, claim 15 is allowable.

The Examiner alleged that with respect to claims 25, 27, and 28 the projections 48 may have differences that correspond to the elements in these claims. Applicant submits that the Examiner does not have sufficient information from the reference to make such allegations. Only one of the projections 48 is illustrated in the figures and the specification does not discuss the structure of the projection 48. As such, the Examiner must withdraw this rejection.

Lastly for Chen et al. and with regard to claims 30 and 31, element 48 is identified as an alignment rib and the alignment ribs specifically allow for misalignment in two different directions. See col. 5, lines 42-67. Thus, they cannot align the ferrule to control the horizontal and vertical directions of the ferrule holder to the adapter. For this additional reason, these claims are allowable.

Finally, the Examiner rejected claims 12, 13, and 22-26 under 35 U.S.C. § 102(a)(l) as being anticipated by Katoh. As noted above, the independent claims all require that the projections are on the sides with the smaller width. That is the opposite from the projections in Katoh. The purpose behind the projections being on different sides is due to a number of factors. First, the claimed invention has a smaller footprint and allows for a higher density of fiber optic ferrules in a given space. This also means that there needs to be as little space between the fiber optic ferrules as possible, which is not provided for in Katoh.

Applicant also asserts that one of skill in the art would not move the projections to the other sides as that is where the latch is in the adapter in Katoh. Thus, one would have to re-engineer the connector and the adapter to move the projections. Such a reconstruction of the device is not allowed. Thus, the rejected claims are allowable over this reference as well.

Applicant has added new claim 37 to further define the relative locations of the projections relative to one another. The claim is allowable at least by way of its dependence on claim 12. Support for the claim can be found in FIG. 5C, among others.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

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Date: June 1, 2019

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 04/02/2019

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
04/02/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
michael@leetzow.com
ssengupta@usconec.com

Office Action Summary	Application No. 15/855,788	Applicant(s) Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 02/15/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b) ☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 12-13,15-17 and 22-36 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 12-13,15-17 and 22-36 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Response to Amendment

2. With regards to the amendment filed on 02/15/2019, all the requested changes to the claims have been entered. Applicant's constructive efforts to advance prosecution are appreciated. Claim(s) 12, 13, 15-17, and 22-36 are pending.

Response to Arguments

3. Applicant's arguments, see pages 8-9 filed 02/15/2019, with respect to the Chen patent have been fully considered but they are not fully persuasive. First, Applicant argues that "[t]he ferrule holders in Grois et al. are elements (38/70)". The Examiners agrees with this assertion but submits that the adapter (36) in Chen could also be considered a ferrule holder using a broadest reasonable interpretation. This is because the main body (46) of the adapter (36) receives ferrules as admitted by Applicant(s) on page 9 of the response filed 02/15/2019. Second, Applicant argues that the projections in Chen "do not have differing configurations". The word "configuration", however, simply means "the arrangement of the parts of something"[1]. The projections (48) of Chen are arranged on different sides of the main body (46) and, thus, have different configurations. Therefore, Applicant's arguments with respect to claims 12 and 36 are not persuasive.

4. Applicant's arguments with respect to claims 12, 13, and 22-36 have been considered but are moot because the arguments do not apply to any of the references being used in the current

[1] configuration. (n.d.) *Collins English Dictionary – Complete and Unabridged, 12th Edition 2014.* (1991, 1994, 1998, 2000, 2003, 2006, 2007, 2009, 2011, 2014). Retrieved March 28 2019 from https://www.thefreedictionary.com/configuration

rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of 35 U.S.C. 112(b):

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 36 is rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

7. Claim 36 recites the limitation "the adapter" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale or otherwise available to the public before the effective filing date of the claimed invention.

9. Claim(s) 12, 13, 15-17, 22-31, and 36 is/are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Patent No. 6,406,192 to Chen et al. (hereinafter "Chen"). The Chen patent was applied in a prior Office action.

In re claim 12, Chen discloses a ferrule holder/adapter (36), see Figures 1-4, comprising:

a main body (46);

a central opening in the main body (46) and extending from a first end (46a) to a second end (46b) to retain a fiber optic ferrule (Fig. 8, 68) therein, the first end (46a) having an opening therein in communication with the central opening, the second end (46b) disposed opposite the first end (46a) and configured to receive optical fibers (40) therethrough; and

a first projection (48) on a first outside surface of the main body (46) and a second projection (48) on a second outside surface of the main body (46), the first and second outside surfaces being on opposite sides of the main body (46), the first projection (48) arranged on a different side than the second projection (48) and, therefore, having a different configuration than the second projection (52). *See* columns 3-5 of Chen for further details.

In re claim 13, the projections (48) engage a groove (88b) located in a plug (72).

In re claim 15, Chen further discloses a cantilevered latch (122) attached to one of the outside surfaces of the main body (46) between the second end (46b) and one of the projections (48) and extending from a center portion of the main body (46) towards the second end (46b).

In re claim 16, as seen in Fig. 4, the first outside surface may be consider a top surface and the second outside surface may be considered a bottom surface and the main body (46) also has two side surfaces corresponding to the surfaces of main body (46) that are perpendicular to the surfaces on which the projections (48) are located, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

In re claim 17, Chen further discloses a cantilevered latch (122) attached to the main body (46)

and wherein the cantilevered latch (122) and the projections (48) are attached to one of the top surface and the bottom surface.

In re claim 22, at least one of the projections (48) extends from the first end (46a) rearwardly toward the second end (46b).

In re claim 23, at least one of the projections (48) extends along a partial length of the ferrule holder.

In re claim 24, as seen in Fig. 2, at least one of the projections (48) appears to have a chamfered front end.

In re claim 25, one of the projections (48) has at least one dimension, i.e., a thickness or width, that is different than another dimension, i.e., a height or length, of the other projection (48).

In re claim 26, the first outside surface is a top surface of the main body (46) and the opposite second outside surface is a bottom surface of the main body (46), or vice versa.

In re claim 27, the at least one dimension could be a width of the projection (48).

In re claim 28, the at least one dimension could be a height of the projection (48).

In re claim 29, the projections (48) slidingly engage a corresponding groove (88b) in a plug (72).

In re claim 30, the projections (48) have a vertical side surface capable of aligning the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

In re claim 31, the projections (48) have a horizontal top surface capable of aligning the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

In re claim 36, Chen discloses, see Figures 1-4, a ferrule holder comprising:

a main body (46);

a central opening in the main body (46) and extending from a first end (46a) to a second end (46b) to retain a fiber optic ferrule (96) therein, the first end (46a) having an opening therein in communication with the central opening, the second end (46b) disposed opposite the first end (46a) and configured to receive optical fibers (40) therethrough; and

a first projection (48) on a first outside surface of the main body (46) and a second projection (48) on a second outside surface of the main body (46), the first and second outside surfaces being on opposite sides of the main body (46), the first projection (48) arranged on a different side than the second projection (48) and, therefore, having a different configuration than the second projection (52), the projections (48) having surfaces capable of controlling movement of the main body (46) relative to an adapter.

10. Claim(s) 12, 13, and 22-36 is/are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Patent Pub. No. US 2012/0057824 A1 to KATOH (hereinafter "Katoh").

In re claim 12, Katoh discloses, see Figures 1-3 and 9, a ferrule holder (1) comprising:

a main body/housing (2);

a central opening in the main body (2) and extending from a first/front end to a second/rear end to retain a fiber optic ferrule (12) therein, the front end having an opening therein in communication with the central opening, the rear end disposed opposite the front end and configured to receive optical fibers (11) therethrough; and

a first projection/key (51) on a first outside surface (21) of the main body (2) and a second projection/key (52) on a second outside surface of the main body (2), the first and second outside surfaces being on opposite sides of the main body (2), the first projection (51) having a different configuration than the second projection (52). *See* paragraphs [0040]-[0049] and [0077] of Katoh for further details.

In re claim 13, the projections (51/52) engage grooves in an adapter (7).

In re claim 22, as seen in FIG. 1, at least one of the projections (51) extends from the front end rearwardly towards the rear end.

In re claim 23, as seen in FIG. 1, at least one of the projections (51) extends along a partial length of the ferrule holder (1).

In re claim 24, as seen in FIG. 1, at least one of the projections (51) has a chamfered front end.

In re claims 25 and 27, as seen in FIG. 9, one of the projections (51) has a dimension, i.e., a width, that is different than of the other projection (52).

In re claim 26, the first outside surface (21) is a top surface of the main body (2) and the opposite second outside surface is a bottom surface of the main body (2), or vice versa.

In re claims 25 and 28, as seen in FIG. 9, one of the projections (51) has a height dimension that is different than a width dimension of the other projection (52).

In re claim 29, the projections (52/52) slidingly engage a corresponding groove in an adapter (7).

In re claim 30, the projections (51/52) have a vertical side surface capable of aligning the ferrule holder (1) with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder (1) relative to the adapter.

In re claim 31, the projections (51/52) have a horizontal top surface capable of aligning the ferrule holder (1) with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder (1) relative to the adapter.

In re claim 32, Katoh discloses, see Figures 1-3 and 9, a ferrule holder (1) comprising:

a main body (2);

a single central opening in the main body (2) and extending from a front end to a rear end to retain a single fiber optic ferrule (12) therein, the front end having an opening therein in communication with the central opening, the rear end disposed opposite the front end and configured to receive optical fibers (11) therethrough; and

a projection (51/52) on opposite outside surfaces of the main body (2) to engage a

corresponding groove in an adapter (7), the projections (51/52) extending along a partial length of the main body (2) at least partially in a front half of the main body (2). *See* paragraphs [0040]-[0049] and [0077] of Katoh for further details.

In re claim 33, one of the projections (51) is on a first outside surface (21) of the main body (2) of the ferrule holder (1) and has at least one dimension, i.e., a width, that is different than the other projection (52) on an opposite second outside surface.

In re claim 34, the first outside surface (21) is a top surface of the main body (2) and the opposite second outside surface is a bottom surface of the main body (2), or vice versa.

In re claim 35, the projections (51/52) have surfaces to control movement of the main body (2) relative to the adapter (7).

In re claim 36, Katoh discloses, see Figures 1-3 and 9 a ferrule holder (1) comprising:

a main body (2);

a central opening in the main body (2) and extending from a front end to a rear end to retain a fiber optic ferrule (12) therein, the front end having an opening therein in communication with the central opening, the rear end disposed opposite the front end and configured to receive optical fibers (11) therethrough; and

a first projection/key (51) on a first outside surface (21) of the main body (2) and a second projection/key (52) on a second outside surface of the main body (2), the first and second outside surfaces being on opposite sides of the main body (2), the first projection (51) having a

different configuration than the second projection (52) and the projections (51/52) having surfaces capable of controlling movement of the main body (2) relative to an adapter (7). *See* paragraphs [0040]-[0049] and [0077] of Katoh for further details

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar R Rojas whose telephone number is (571)272-2357. The examiner can normally be reached on Monday-Friday, 10AM-6PM EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Hollweg can be reached on 571-270-1739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Omar R Rojas/
Primary Examiner
Art Unit 2883

or
March 28, 2019

Notice of References Cited	Application/Control No. 15/855,788	Applicant(s)/Patent Under Reexamination Nguyen et al.	
	Examiner Omar R Rojas	Art Unit 2883	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20120057824-A1	03-2012	KATOH; Seiji	G02B6/3831	385/71
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	Art Unit
	Omar R Rojas	2883

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Checked refs. for 14/214,931	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/05/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/14/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/27/2019	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	03/28/2019	/O.R./

/OMAR R ROJAS/ Primary Examiner.Art Unit 2883	

Senko Ex. 1014, Page 153
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/855,788	Nguyen et al.
	Examiner	Art Unit
	Omar R Rojas	2883

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/OMAR R ROJAS/ Primary Examiner.Art Unit 2883	

Senko Ex. 1014, Page 154
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S268	60316	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/14 21:55
S270	16	S268 and S269	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/14 21:57
S269	3942	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/14 21:57
S271	436858	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:30
S277	36	S274 not S276	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:31
S276	16	S275 and S272	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:31
S275	60386	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:31
S274	52	S271 and S273	US-PGPUB;	OR	ON	2019/03/27

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			20:31
S273	6141	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:31
S323	679	S322 not S321	US-PGPUB; USPAT; EPO; JPO	OR	ON	2019/03/27 20:35
S322	1092	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2019/03/27 20:35
S321	2077	S300 S302 S305 S308 S312 S315 S317 S319 S320	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S320	105	("4840451").URPN.	USPAT	OR	OFF	2019/03/27 20:35
S319	461	S318 not (S300 S302 S305 S308 S312 S315 S317)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S318	851	G02B6/3825.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S317	168	S316 not (S300 S302 S305 S308 S312 S315)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S316	297	G02B6/3897.cpc. and S310	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S315	170	S314 and (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S314	528	S313 not (S300 S302 S305 S308 S312)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S313	765	G02B6/3897.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT;	OR	OFF	2019/03/27 20:35

			IBM_TDB			
S312	48	S311 not (S300 S302 S305 S308)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S311	159	S309 and S310	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S310	2902	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S309	1517	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S308	111	S307 not (S300 S302 S305)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S307	174	G02B6/3879.cpc. and S306	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S306	1746	385/59,71.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S305	85	S304 not (S300 S302)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S304	132	S303 and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S303	20274	(protrusion projection protuberance raised) with (adaptor adapter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S302	185	S301 not S300	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S301	230	G02B6/3878.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT;	OR	OFF	2019/03/27 20:35

			IBM_TDB			
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S299	341	S298 not (S296 S297)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S298	362	G02B6/3879.cpc. and G02B6/3885.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S297	81	S280 not S296	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/27 20:35
S296	336	S287 S289 S292 S293 S295	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/27 20:35
S295	100	S294 not (S287 S289 S292 S293)	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/27 20:35
S294	115	("4526430" | "4550362" | "4647130" | "4767179" | "5082344" | "5121454" | "5125056" | "5228865" | "5257947" | "5542015" | "5619604" | "5764834" | "5845027" | "5960138" | "6007256" | "6050845" | "6076975" | "6146023" | "6331079").PN. OR ("6331079" | "6361218" | "6364536" | "6406192" | "6422760").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/27 20:35
S293	47	("20020006253" | "4820169" | "4881792" | "5121454" | "5125056" | "5134679" | "5245683" | "5506922" | "5778121" | "5883995" | "5909526" | "5915058" | "5930426" | "5956444" | "5960138" | "6076975" | "6079881" | "6135644" | "6154597" | "6240228" | "6276839" | "6331079" | "6361218" | "6364536" | "6406192" | "6412986" | "6419399" | "6422760" | "6425692" | "6461053" | "6832858").PN. OR ("7073953").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/27 20:35
S292	20	S291 and wafer.ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S291	813	S290 and g02b6/$.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:35
S290	3446	rojas.xa,xp.	US-PGPUB; USPAT;	OR	ON	2019/03/27 20:35

			EPO; JPO; DERWENT; IBM_TDB			
S289	1	S288 not S287	US-PGPUB; USPAT	OR	ON	2019/03/27 20:35
S288	98	S286 and ((fiber optic$3) near3 connect$3).ti,ab,clm.	US-PGPUB; USPAT	OR	ON	2019/03/27 20:35
S287	168	S286 and g02b6/$.cpc.	US-PGPUB; USPAT	OR	ON	2019/03/27 20:35
S286	978	S281 S282 S283 S284 S285	US-PGPUB; USPAT	OR	OFF	2019/03/27 20:35
S285	216	((Joseph) near2 (Howard)).INV.	US-PGPUB; USPAT	OR	OFF	2019/03/27 20:35
S284	39	((Jillcha) near2 (Wakjira)).INV.	US-PGPUB; USPAT	OR	OFF	2019/03/27 20:35
S283	565	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2019/03/27 20:35
S282	145	((Darrell) near2 (Childers)).INV.	US-PGPUB; USPAT	OR	OFF	2019/03/27 20:35
S281	142	((Hiep) near2 (Nguyen)).INV.	US-PGPUB; USPAT	OR	OFF	2019/03/27 20:35
S280	85	("20050281509" | "20060063436" | "20100266245" | "4111522" | "5082346" | "5093881" | "5155784" | "5276755" | "5647043" | "5689598" | "5692079" | "5838856" | "6095695" | "6422760" | "7785018").PN. OR ("2005/0281509" | "6095695" | "9086546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/27 20:35
S279	38	("2005/0281509").URPN.	USPAT	OR	ON	2019/03/27 20:35
S278	0	(10/871406).APP.	USPAT; USOCR	OR	ON	2019/03/27 20:35
S325	2	S324 not (S276 S277)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:38
S324	16	ferrule.ti,ab,clm. and S273	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:38
S327	22	S326 not (S276 S277 S325)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:40
S326	38	S273 and ferrule	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2019/03/27 20:40

			EPO; JPO; DERWENT; IBM_TDB			
S330	91	S329 not (S276 S277 S325 S327)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:43
S329	113	S275 and S328	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:43
S328	49875	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/27 20:43
S345	167	S336 S337 S339 S341 S344	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S344	91	S343 not (S336 S337 S339 S341)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S343	113	S335 and S342	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S342	49905	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S341	22	S340 not (S336 S337 S339)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S340	38	S333 and ferrule	US-PGPUB; USPAT;	OR	ON	2019/03/28 10:09

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S339	2	S338 not (S336 S337)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S338	16	ferrule.ti,ab,clm. and S333	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S337	36	S334 not S336	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S336	16	S335 and S332	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S335	60394	G02B6/38$3.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S334	52	S331 and S333	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S333	6145	(projection protuberance protrusion key) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S332	3957	(projection protuberance protrusion) near2 (differ$2 different) adj2 (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09

S331	436945	G02B6/$.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:09
S347	1914	S331 and S346	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:10
S346	142319	(projection protuberance protrusion key) with (differ$2 different unequal asymmetric$4 smaller larger bigger greater) with (width thickness size$3 length)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:10
S349	148	S348 not S345	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:11
S348	218	ferrule.ti,ab,clm. and S347	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/03/28 10:11
S351	1	("7182523").PN.	US-PGPUB; USPAT	OR	OFF	2019/03/28 10:32
S350	0	(13/192098).APP.	USPAT; USOCR	OR	ON	2019/03/28 10:32
S352	40	("7182523").URPN.	USPAT	OR	ON	2019/03/28 10:34

EAST Search History (Interference)

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3/ 28/ 2019 5:17:24 PM
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Electronic Acknowledgement Receipt

EFS ID:	35165158
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	15-FEB-2019
Filing Date:	27-DEC-2017
Time Stamp:	13:47:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Supplemental Response or Supplemental Amendment	ResponseNonCompliantUSCO05302.pdf	91840 167fe283086ebd9b32ea5a1a95932110f23b1c67	no	9

Warnings:

Information:	
Total Files Size (in bytes):	91840

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

RESPONSE TO NON-COMPLIANT AMENDMENT AND AMENDMENT

Dear Sir:

In response to the Notice of Non-Compliant Amendment and the Office Action mailed on August 9, 2018, Applicant amends the application and responds as follows:

IN THE CLAIMS:

Claims 1-11. Canceled.

12. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

~~a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter~~ a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different configuration than the second projection.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14. Canceled.

15. (Currently Amended) The ferrule holder according to claim 12, further comprising a cantilevered latch attached to one of the outside surfaces ~~an outside surface~~ of the main body between the second end and one of the projections and extending from a center portion of the main body towards the second end.

16. (Currently Amended) The ferrule holder according to claim 12, wherein the first outside surface is ~~main body has~~ a top surface, the second outside surface is a bottom surface

and the main body also has two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

17. (Currently Amended) The ferrule holder according to claim 16, further comprising a cantilevered latch attached to ~~an outside surface of~~ the main body and wherein the cantilevered latch and the projections are attached to one of the top surface and the bottom surface.

Claims 18-21. Canceled.

22. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

23. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends along a length of the ferrule holder.

24. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections has a chamfered front end.

25. (Currently Amended) The ferrule holder according to claim 12, wherein one of the projections ~~is on a first surface of the main body of the ferrule holder and~~ has at least one dimension that is different than the other projection ~~on an opposite second surface~~.

26. (Currently Amended) The ferrule holder according to claim 25, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

27. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a width of the projection.

28. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a height of the projection.

29. (Previously Presented) The ferrule holder according to claim 12, wherein the projections slidingly engage a corresponding groove in a plug.

30. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a vertical side surface to align the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

31. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a horizontal top surface to align the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

32. (Currently Amended) A ferrule holder comprising:

a main body;

a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter, the projections extending along a length of the main body at least partially in a front half of the main body.

33. (Currently Amended) The ferrule holder according to claim 32, wherein one of the projections is on a first outside surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second outside surface.

34. (Previously Presented) The ferrule holder according to claim 33, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

35. (Previously Presented) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

36. (Previously Presented) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

~~a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter~~ a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different configuration than the second projection and the projections having surfaces to the control movement of the main body relative to the adapter.

REMARKS

In a Notice of Non-Compliant Amendment dated February 15, 2019, it was noted that in the February 6, 2019 Amendment, the canceling of claims 14 and 18-21 were noted next to the canceling of claims 1-11. This grouping caused the claims to not be listed in ascending order. Applicant has fixed the first line of the claims by removing the listing of claims 14 and 18-21. All claims are now in ascending order. The remainder of this Amendment is the same as filed on February 6, 2019, to keep the claims and the arguments in the same filing.

In the above-referenced Office Action, the Examiner rejected claims 12, 16, 23-28, and 30-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Grois et al. (U.S. Patent No. 6,331,079); rejected claims 12, 13, 15-17, and 23-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Matasek et al. (U.S. Patent No. 6,361,218); and rejected claims 12, 13, 15-17, and 22-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Chen et al. (U.S. Patent No. 6,406,192).

In this amendment, Applicant has amended independent claims 12, 32, and 36. Applicant has also amended claims 15-17, 25-26, and 33 to be consistent with the amendments made to the independent claims.

Applicant brings to the Examiner's attention that the disclosures of the three cited references are almost identical. The three patents claim different inventions that are present in the disclosures, but the figures and the vast majority of the specifications are identical - except for the summary, claims and introductory paragraphs. As such, Applicant is confused as to why the three different references were needed. Given this situation, Applicant will address all of the claims with respect to all three of the cited references (herein referred to as GMC - Grois; Matasek; Chen) given the same disclosures.

In rejecting claims 12, 16, 23-28, and 30-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Grois et al., the Examiner used the embodiment illustrated in Figs. 8-10 of GMC and the latch block 70f.

Applicant has amended claim 12 to require, *inter alia*, a first projection having a different configuration than a second projection. GMC does not disclose or suggest two projections with a different configuration.

In fact, the figures in GMC do not show a latch block 70f on two sides (in fact none are shown in Fig. 10) of the main body. It appears from the specification that Fig. 10 must have inadvertently omitted that feature. However, the specification indicates that there are two latch blocks 70f, but there is no disclosure that they have a different configuration. Applicant asserts that they must have the same configuration because the same reference numeral is provided for both of the latch blocks. Additionally, if there were differences between the latch blocks, it would only stand to reason that those differences would be specified.

The Examiner must believe that they have different configurations based on the rejection of claim 25:

> *In re* claim 25, one of the projections (70f) is on a first surface of the main body (70) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another dimension, i.e., a height or length, of the other projection (70f) on an opposite second surface.

Office Action at p. 3.

However, the Examiner has provided no evidence of that fact other than this bare assertion. This lack of evidence is highlighted in the rejection of claim 27 where the Examiner alleged "the at least one dimension **could be** a width of the projection (70f)." Id. (emphasis added). In fact, with one of the latch blocks missing from the figures (and the Brief Description of the Drawings does not inform the reader which side is visible in the figures), the Examiner has failed to make a case of anticipation because he cannot show the claimed features.

As such, Applicant submits that claims 12-13, 15-17, 22-25, 29-31 are allowable for at least this reason.

The Examiner also used the embodiment in Figs. 8-10 of GMC to reject claims 32-34. Applicant has amended claim 32 to require, *inter alia*, that there be a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein. The claim also now requires that the projections extend along a length of the main body at least partially in a front half of the main body. The latch block 70f does not extend along a length of the main body at least partially in a front half of the main body - it is clearly in the rear portion of the main body.

Regarding claim 33, which requires that the two projections have at least one dimension that is different from the other, this feature is not shown in GMC as was discussed above. Thus, claim 32-35 are allowable for at least these reasons.

Claim 36, like claim 12, requires the first projection to have a different configuration than the second projection. This is not shown or described in the references and claim 36 is allowable for at least this reason.

Next the Examiner rejected claims 12, 13, 15-17, and 23-36 under 35 U.S.C. § 102(a)(l) as being anticipated by the device shown in the embodiment in Figs. 11-14 of GMC. The projection used by the Examiner in this embodiment is element 74b. However, as noted above, Applicant has amended claims 12, 32, and 36 and the amendments distinguish over the embodiment in Figs. 11-14. For claims 12 and 36, the first projection has a different configuration than the second projection. This is not the case in this embodiment of GMC either. For at least this reason, claims 12 and 36 and their dependent claims are allowable.

Claim 32 new requires that the main body have a single central opening to retain a single fiber optic ferrule therein. Clearly, the rear housing part 74 has multiple openings to retain multiple fiber optic ferrules therein. For at least these reasons, claims 32-35 are allowable.

Finally, the Examiner rejected claims 12, 13, 15-17, and 22-36 under 35 U.S.C. § 102(a)(l) as being anticipated by the embodiment in Figs. 1-4 of GMC. First, Applicant brings to the attention of the Examiner, as was done in the grandparent case, that the devices in Figs 1-4 are not the same type of device as that claimed. The ferrule holders in Grois et al.

are elements 38/70 as discussed above. Second, the projections in Grois et al. fail to meet the limitations of claims 12, 32, and 36. With regard to claims 12 and 36, the opposing projections do not have differing configurations. With regard to claim 32, main body 46 has multiple openings for multiple fiber optic ferrules. Thus, claims 12, 13, 15-17, and 22-36 are allowable for at least these reasons.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

/Michael L. Leetzow/
Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct
Sanford, FL 32771
Telephone: 407/302-9970

Date: February 15, 2019

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $80 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $420 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	02/15/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/JAMES W TUNSTALL/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 02/15/2019

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
02/15/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
michael@leetzow.com
ssengupta@usconec.com

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 15/855,788	Applicant(s) Nguyen et al.
	Art Unit OED2	AIA Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on 06 February 2019 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____ .
- ☐ 2. Abstract:
  - ☐ A.Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B.Other _____ .
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet", "New Sheet", or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____ .
- ☑ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☑ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☑ E. Other: See Continuation Sheet .
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4): For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance, or a drawing submission (only) If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **two months** from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action. If any of above boxes 1 to 4 are checked, the correction required is only the corrected section of the non-compliant amendment in compliance with 37 CFR 1.121.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable /AMANDA N FORD/ Telephone No: (571)272-1573

Continuation of 4. Amendments to the claims- E. Other: Canceled claims 14 and 18-21 should not be listed next to the canceled claims 1-11. It should not be listed on that same line together, because it's not in ascending order when listed in that format.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $80 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $420 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	02/06/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/AMANDA N FORD/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	15855788
Filing Date:	27-Dec-2017
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Filer:	MICHAEL LEETZOW
Attorney Docket Number:	USCO-053-02

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $0 paid	1253	1	1400	1400
Miscellaneous:				
		Total in USD ($)		**1400**

Electronic Acknowledgement Receipt

EFS ID:	35083500
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	07-FEB-2019
Filing Date:	27-DEC-2017
Time Stamp:	10:36:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1400
RAM confirmation Number	020719INTEFSW10384100
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	fee-info.pdf	30480 5edb1f43716c817967ec13f0d16b8e139f86dfeb	no	2

Warnings:

Information:

Total Files Size (in bytes):	30480

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	15/855,788	)	
		)	Examiner: Omar R ROJAS
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

PETITION FOR AN EXTENSION OF TIME

Applicant hereby petitions for a three-month extension of time to respond to an Office Action mailed on August 9, 2018, extending the time in which to respond to February 9, 2019. A fee of $1400.00 for the three-month extension of time is submitted herewith.

Respectfully submitted,

/Michael L. Leetzow/
Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct.
Sanford, FL 32771
Telephone: 407/302-9970

Date: February 6, 2019

Electronic Patent Application Fee Transmittal

Application Number:	15855788
Filing Date:	27-Dec-2017
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Filer:	MICHAEL LEETZOW
Attorney Docket Number:	USCO-053-02

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $0 paid	1253	1	1400	1400
Miscellaneous:				
		Total in USD ($)		**1400**

Electronic Acknowledgement Receipt

EFS ID:	35074554
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	06-FEB-2019
Filing Date:	27-DEC-2017
Time Stamp:	13:38:29
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	AmendmentUSCO05302.pdf	91083 f67b790e7fbbde11567ca1176284078a400a7ce3	no	9

Warnings:

Information:					
2	Extension of Time	EOTFEB2019USCO05302.pdf	53617 a191477a88abedee989399dfab7d739bb16f0798	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30480 7bec473bd8e1545255b35abe2f079056db4b648a	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	175180	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	Group Art Unit:	2883
Serial No.:	15/855,788	Examiner:	Omar R ROJAS
Filing Date:	December 27, 2017		
Title:	Alignment Adapter and Alignment Design for a Connector Therefor		

Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

AMENDMENT

Dear Sir:

In response to the Office Action mailed on August 9, 2018, the time in which to respond has been extended by three months with the Petition for and Extension of Time and fee filed concurrently herewith, Applicant amends the application and responds as follows:

IN THE CLAIMS:

Claims 1-11, 14, and 18-21. Canceled.

12. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

~~a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter~~ a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different configuration than the second projection.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14. Canceled.

15. (Currently Amended) The ferrule holder according to claim 12, further comprising a cantilevered latch attached to one of the outside surfaces ~~an outside surface~~ of the main body between the second end and one of the projections and extending from a center portion of the main body towards the second end.

16. (Currently Amended) The ferrule holder according to claim 12, wherein the first outside surface is ~~main body has~~ a top surface, the second outside surface is a bottom surface

and the main body also has two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

17. (Currently Amended) The ferrule holder according to claim 16, further comprising a cantilevered latch attached to ~~an outside surface of~~ the main body and wherein the cantilevered latch and the projections are attached to one of the top surface and the bottom surface.

Claims 18-21. Canceled.

22. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

23. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections extends along a length of the ferrule holder.

24. (Previously Presented) The ferrule holder according to claim 12, wherein at least one of the projections has a chamfered front end.

25. (Currently Amended) The ferrule holder according to claim 12, wherein one of the projections ~~is on a first surface of the main body of the ferrule holder and~~ has at least one dimension that is different than the other projection ~~on an opposite second surface~~.

26. (Currently Amended) The ferrule holder according to claim 25, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

27. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a width of the projection.

28. (Previously Presented) The ferrule holder according to claim 25, wherein the at least one dimension is a height of the projection.

29. (Previously Presented) The ferrule holder according to claim 12, wherein the projections slidingly engage a corresponding groove in a plug.

30. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a vertical side surface to align the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

31. (Previously Presented) The ferrule holder according to claim 12, wherein the projections have a horizontal top surface to align the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

32. (Currently Amended) A ferrule holder comprising:

a main body;

a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter, the projections extending along a length of the main body at least partially in a front half of the main body.

33. (Currently Amended) The ferrule holder according to claim 32, wherein one of the projections is on a first outside surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second outside surface.

34. (Previously Presented) The ferrule holder according to claim 33, wherein the first outside surface is a top surface of the main body and the opposite second outside surface is a bottom surface of the main body, or vice versa.

35. (Previously Presented) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

36. (Previously Presented) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

~~a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter~~ a first projection on a first outside surface of the main body and a second projection on a second outside surface of the main body, the first and second outside surfaces being on opposite sides of the main body, the first projection having a different configuration than the second projection and the projections having surfaces to the control movement of the main body relative to the adapter.

REMARKS

In the above-referenced Office Action, the Examiner rejected claims 12, 16, 23-28, and 30-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Grois et al. (U.S. Patent No. 6,331,079); rejected claims 12, 13, 15-17, and 23-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Matasek et al. (U.S. Patent No. 6,361,218); and rejected claims 12, 13, 15-17, and 22-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Chen et al. (U.S. Patent No. 6,406,192).

In this amendment, Applicant has amended independent claims 12, 32, and 36. Applicant has also amended claims 15-17, 25-26, and 33 to be consistent with the amendments made to the independent claims.

Applicant brings to the Examiner's attention that the disclosures of the three cited references are almost identical. The three patents claim different inventions that are present in the disclosures, but the figures and the vast majority of the specifications are identical - except for the summary, claims and introductory paragraphs. As such, Applicant is confused as to why the three different references were needed. Given this situation, Applicant will address all of the claims with respect to all three of the cited references (herein referred to as GMC - Grois; Matasek; Chen) given the same disclosures.

In rejecting claims 12, 16, 23-28, and 30-36 under 35 U.S.C. § 102(a)(l) as being anticipated by Grois et al., the Examiner used the embodiment illustrated in Figs. 8-10 of GMC and the latch block 70f.

Applicant has amended claim 12 to require, *inter alia*, a first projection having a different configuration than a second projection. GMC does not disclose or suggest two projections with a different configuration.

In fact, the figures in GMC do not show a latch block 70f on two sides (in fact none are shown in Fig. 10) of the main body. It appears from the specification that Fig. 10 must have inadvertently omitted that feature. However, the specification indicates that there are two latch blocks 70f, but there is no disclosure that they have a different configuration. Applicant asserts that they must have the same configuration because the same reference

numeral is provided for both of the latch blocks. Additionally, if there were differences between the latch blocks, it would only stand to reason that those differences would be specified.

The Examiner must believe that they have different configurations based on the rejection of claim 25:

> *In re* claim 25, one of the projections (70f) is on a first surface of the main body (70) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another dimension, i.e., a height or length, of the other projection (70f) on an opposite second surface.

Office Action at p. 3.

However, the Examiner has provided no evidence of that fact other than this bare assertion. This lack of evidence is highlighted in the rejection of claim 27 where the Examiner alleged "the at least one dimension **could be** a width of the projection (70f)." Id. (emphasis added). In fact, with one of the latch blocks missing from the figures (and the Brief Description of the Drawings does not inform the reader which side is visible in the figures), the Examiner has failed to make a case of anticipation because he cannot show the claimed features.

As such, Applicant submits that claims 12-13, 15-17, 22-25, 29-31 are allowable for at least this reason.

The Examiner also used the embodiment in Figs. 8-10 of GMC to reject claims 32-34. Applicant has amended claim 32 to require, *inter alia*, that there be a single central opening in the main body and extending from a first end to a second end to retain a single fiber optic ferrule therein. The claim also now requires that the projections extend along a length of the main body at least partially in a front half of the main body. The latch block 70f does not extend along a length of the main body at least partially in a front half of the main body - it is clearly in the rear portion of the main body.

Regarding claim 33, which requires that the two projections have at least one dimension that is different from the other, this feature is not shown in GMC as was discussed above. Thus, claim 32-35 are allowable for at least these reasons.

Claim 36, like claim 12, requires the first projection to have a different configuration than the second projection. This is not shown or described in the references and claim 36 is allowable for at least this reason.

Next the Examiner rejected claims 12, 13, 15-17, and 23-36 under 35 U.S.C. § 102(a)(l) as being anticipated by the device shown in the embodiment in Figs. 11-14 of GMC. The projection used by the Examiner in this embodiment is element 74b. However, as noted above, Applicant has amended claims 12, 32, and 36 and the amendments distinguish over the embodiment in Figs. 11-14. For claims 12 and 36, the first projection has a different configuration than the second projection. This is not the case in this embodiment of GMC either. For at least this reason, claims 12 and 36 and their dependent claims are allowable.

Claim 32 new requires that the main body have a single central opening to retain a single fiber optic ferrule therein. Clearly, the rear housing part 74 has multiple openings to retain multiple fiber optic ferrules therein. For at least these reasons, claims 32-35 are allowable.

Finally, the Examiner rejected claims 12, 13, 15-17, and 22-36 under 35 U.S.C. § 102(a)(l) as being anticipated by the embodiment in Figs. 1-4 of GMC. First, Applicant brings to the attention of the Examiner, as was done in the grandparent case, that the devices in Figs 1-4 are not the same type of device as that claimed. The ferrule holders in Grois et al. are elements 38/70 as discussed above. Second, the projections in Grois et al. fail to meet the limitations of claims 12, 32, and 36. With regard to claims 12 and 36, the opposing projections do not have differing configurations. With regard to claim 32, main body 46 has multiple openings for multiple fiber optic ferrules. Thus, claims 12, 13, 15-17, and 22-36 are allowable for at least these reasons.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

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Courtesy Reminder for
Application Serial No: 15/855,788

Attorney Docket No: USCO-053-02
Customer Number: 152017
Date of Electronic Notification: 08/09/2018

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 08/09/2018

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EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
08/09/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael@leetzow.com
eofficeaction@appcoll.com
ssengupta@usconec.com

Office Action Summary	Application No. 15/855,788	Applicant(s) NGUYEN ET AL.	
	Examiner Omar R. Rojas	Art Unit 2883	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06/14/2018*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *12,13,15-17 and 22-36* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *12,13,15-17 and 22-36* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *12/27/2017 and 06/14/2018* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Senko Ex. 1014, Page 1 of 2 IPR2024-00806
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

DETAILED ACTION

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Election/Restrictions

2. Applicant's election without traverse of Invention II (claims 12, 13, 15-17, and 22-36) in the reply filed on 06/14/2018 is acknowledged.

Information Disclosure Statement

3. The prior art documents submitted by applicant(s) in the Information Disclosure Statement(s) ("IDS") filed on 04/11/2018 have all been considered and made of record (note the attached copy of form(s) PTO/SB/08a).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale or otherwise available to the public before the effective filing date of the claimed invention.

5. Claim(s) 12, 16, 23-28, and 30-36 is/are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Patent No. 6,331,079 to Grois et al. (hereinafter "Grois"). The Grois patent was cited by Applicant in the IDS.

In re claim 12, Grois discloses, see Figures 8-10, a ferrule holder comprising:

a main body (70);

a central opening in the main body (70) and extending from a first end (70i) to a second end (70h) to retain a fiber optic ferrule (68) therein, the first end (70i) having an opening therein

in communication with the central opening, the second end (70h) disposed opposite the first end (70i) and configured to receive optical fibers (40) therethrough; and

a projection (70f) on opposite outside surfaces of the main body (70) to engage a corresponding groove in an adapter (36). *See* col. 4, lines 25-60 of Grois for further details.

In re claim 16, as seen in Figs. 8-9, the main body (70) has a top surface with one projection (70f), a bottom surface with another projection (70f) and two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

In re claim 23, at least one of the projections (70f) extends along a partial length of the ferrule holder.

In re claim 24, as seen in Fig. 8, at least one of the projections (70f) has a chamfered front end.

In re claim 25, one of the projections (70f) is on a first surface of the main body (70) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another dimension, i.e., a height or length, of the other projection (70f) on an opposite second surface.

In re claim 26, the first surface is a top surface of the main body (70) and the opposite second surface is a bottom surface of the main body (70), or vice versa.

In re claim 27, the at least one dimension could be a width of the projection (70f).

In re claim 28, the at least one dimension could be a height of the projection (70f).

In re claim 30, the projections (70f) have a vertical side surface capable of aligning the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

In re claim 31, the projections (70f) have a horizontal top surface capable of aligning the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

In re claim 32, Grois discloses, see Figures 8-10, a ferrule holder comprising:

a main body (70);

a central opening in the main body (70) and extending from a first end (70i) to a second end (70h) to retain a fiber optic ferrule (68) therein, the first end (70i) having an opening therein in communication with the central opening, the second end (70h) disposed opposite the first end (70i) and configured to receive optical fibers (40) therethrough; and

a projection (70f) on opposite outside surfaces of the main body (70) to engage a corresponding groove in an adapter, the projections (70f) extending along a partial length of the main body (70).

In re claim 33, of the projections (70f) is on a first surface of the main body (70) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another

dimension, i.e., a height or length, of the other projection (70f) on an opposite second surface.

In re claim 34, the first surface is a top surface of the main body (70) and the opposite second surface is a bottom surface of the main body (70), or vice versa.

In re claim 35, the projections (70f) have surfaces to control movement of the main body (70) relative to the adapter.

In re claim 36, Grois discloses, see Figures 8-10, a ferrule holder comprising:

a main body (70);

a central opening in the main body (70) and extending from a first end (70i) to a second end (70h) to retain a fiber optic ferrule (68) therein, the first end (70i) having an opening therein in communication with the central opening, the second end (70h) disposed opposite the first end (70i) and configured to receive optical fibers (40) therethrough; and

a projection (70f) on opposite outside surfaces of the main body (70) to engage a corresponding groove in an adapter, the projections (70f) having surfaces capable of controlling movement of the main body (70) relative to the adapter.

6. Claim(s) 12, 13, 15-17, and 23-36 is/are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Patent No. 6,361,218 to Matasek al. (hereinafter "Matasek").

In re claim 12, Matasek discloses, see Figures 11-14, a ferrule holder comprising:

a main body (74);

a central opening in the main body (74) and extending from a first end to a second end to retain a fiber optic ferrule (96) therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers (44) therethrough; and

a projection (74b) on opposite outside surfaces of the main body (74) capable of engaging a corresponding groove in an adapter (36). *See* col. 4, line 61 to col. 6, line 30 of Matasek for further details.

In re claim 13, the projections (74b) engage a groove defined by a shoulder (Fig. 13, 72a) located in a plug (72).

In re claim 15, Matasek further discloses a cantilevered latch (74a) attached to an outside surface of the main body (74) between the second end and one of the projections (74b) and extending from a center portion of the main body (74) towards the second end.

In re claim 16, as seen in Figs. 11-12, the main body (74) has a top surface with one projection (74b), a bottom surface with another projection (74b) and two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

In re claim 17, Matasek further discloses a cantilevered latch (74a) attached to an outside surface of the main body (74) and wherein the cantilevered latch (74a) and the projections (74b) are attached to one of the top surface and the bottom surface.

In re claim 23, at least one of the projections (74b) extends along a partial length of the ferrule holder.

In re claim 24, as seen in Fig. 12, at least one of the projections (74b) has a chamfered front end.

In re claim 25, one of the projections (74b) is on a first surface of the main body (74) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another dimension, i.e., a height or length, of the other projection (74b) on an opposite second surface.

In re claim 26, the first surface is a top surface of the main body (74) and the opposite second surface is a bottom surface of the main body (74), or vice versa.

In re claim 27, the at least one dimension could be a width of the projection (74b).

In re claim 28, the at least one dimension could be a height of the projection (74b).

In re claim 29, the projections (74b) slidingly engage a corresponding groove in a plug (72) defined by a shoulder (72a).

In re claim 30, the projections (74b) have a vertical side surface capable of aligning the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

In re claim 31, the projections (74b) have a horizontal top surface capable of aligning the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

In re claim 32, Matasek discloses, see Figures 11-14, a ferrule holder comprising:

a main body (74);

a central opening in the main body (74) and extending from a first end to a second end to retain a fiber optic ferrule (96) therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers (44) therethrough; and

a projection (74b) on opposite outside surfaces of the main body (74) to engage a corresponding groove in an adapter, the projections (74b) extending along a partial length of the main body (74).

In re claim 33, one of the projections (74b) is on a first surface of the main body (74) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another dimension, i.e., a height or length, of the other projection (74b) on an opposite second surface.

In re claim 34, the first surface is a top surface of the main body (74) and the opposite second surface is a bottom surface of the main body (74), or vice versa.

In re claim 35, the projections (74b) have surfaces to control movement of the main body (74)

relative to the adapter.

In re claim 36, Matasek discloses, see Figures 11-14, a ferrule holder comprising:

a main body (74);

a central opening in the main body (74) and extending from a first end to a second end to retain a fiber optic ferrule (96) therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers (44) therethrough; and

a projection (74b) on opposite outside surfaces of the main body (74) to engage a corresponding groove in an adapter, the projections (74b) having surfaces capable of controlling movement of the main body (74) relative to the adapter.

7. Claim(s) 12, 13, 15-17, and 22-36 is/are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Patent No. 6,406,192 to Chen et al. (hereinafter "Chen").

In re claim 12, Chen discloses, see Figures 1-4, a ferrule holder comprising:

a main body (46);

a central opening in the main body (46) and extending from a first end (46a) to a second end (46b) to retain a fiber optic ferrule (Fig. 8, 68) therein, the first end (46a) having an opening therein in communication with the central opening, the second end (46b) disposed opposite the first end (46a) and configured to receive optical fibers (40) therethrough; and

a projection (48) on opposite outside surfaces of the main body (46) to engage a corresponding groove (88b) in an adapter/plug (72). *See* columns 3-5 of Chen for further details.

In re claim 13, the projections (48) engage a groove (88b) located in a plug (72).

In re claim 15, Chen further discloses a cantilevered latch (122) attached to an outside surface of the main body (46) between the second end (46b) and one of the projections (48) and extending from a center portion of the main body (46) towards the second end (46b).

In re claim 16, as seen in Fig. 4, the main body (46) has a top surface with one projection (48), a bottom surface with another projection (48) and two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

In re claim 17, Chen further discloses a cantilevered latch (122) attached to an outside surface of the main body (46) and wherein the cantilevered latch (122) and the projections (48) are attached to one of the top surface and the bottom surface.

In re claim 22, at least one of the projections (48) extends from the first end (46a) rearwardly toward the second end (46b).

In re claim 23, at least one of the projections (48) extends along a partial length of the ferrule holder.

In re claim 24, as seen in Fig. 2, at least one of the projections (48) appears to have a chamfered front end.

In re claim 25, one of the projections (48) is on a first surface of the main body (46) of the ferrule holder and has at least one dimension, i.e., a thickness or width, that is different than another dimension, i.e., a height or length, of the other projection (48) on an opposite second surface.

In re claim 26, the first surface is a top surface of the main body (46) and the opposite second surface is a bottom surface of the main body (46), or vice versa.

In re claim 27, the at least one dimension could be a width of the projection (48).

In re claim 28, the at least one dimension could be a height of the projection (48).

In re claim 29, the projections (48) slidingly engage a corresponding groove (88b) in a plug (72).

In re claim 30, the projections (48) have a vertical side surface capable of aligning the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

In re claim 31, the projections (48) have a horizontal top surface capable of aligning the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

In re claim 32, Chen discloses, see Figures 1-4, a ferrule holder comprising:

a main body (46);

a central opening in the main body (46) and extending from a first end (46a) to a second end (46b) to retain a fiber optic ferrule (96) therein, the first end (46a) having an opening therein in communication with the central opening, the second end (46b) disposed opposite the first end (46a) and configured to receive optical fibers (40) therethrough; and

a projection (48) on opposite outside surfaces of the main body (46) to engage a corresponding groove in an adapter/plug (72), the projections (48) extending along a partial length of the main body (46).

In re claim 33, one of the projections (48) is on a first surface of the main body (46) of the ferrule holder and has at least one dimension, i.e., a width or height, that is different than another dimension, i.e., a height or length, of the other projection (48) on an opposite second surface.

In re claim 34, the first surface is a top surface of the main body (46) and the opposite second surface is a bottom surface of the main body (46), or vice versa.

In re claim 35, the projections (48) have surfaces to control movement of the main body (46) relative to the adapter.

In re claim 36, Chen discloses, see Figures 11-14, a ferrule holder comprising:

a main body (46);

a central opening in the main body (46) and extending from a first end (46a) to a second end (46b) to retain a fiber optic ferrule (96) therein, the first end (46a) having an opening therein in communication with the central opening, the second end (46b) disposed opposite the first end (46a) and configured to receive optical fibers (40) therethrough; and

a projection (48) on opposite outside surfaces of the main body (46) to engage a corresponding groove in an adapter, the projections (48) having surfaces capable of controlling movement of the main body (46) relative to the adapter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar R. Rojas whose telephone number is (571)272-2357. The examiner can normally be reached on Monday-Thursday (10:00AM-08:00PM).

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Hollweg can be reached on (571) 218-1739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Omar R. Rojas/
Primary Examiner
Art Unit 2883

or
August 6, 2018

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S214	1	(10/744050).APP.	USPAT; USOCR	OR	ON	2018/08/03 17:18
S215	89	("20030092313" | "20040141692" | "20050018973" | "20050135755" | "20050163429" | "20080037934" | "20080037938" | "20090274432" | "20100195958" | "4550362" | "4767179" | "5121454" | "5125056" | "5257947" | "5542015" | "5673346" | "5764834" | "5845027" | "5960138" | "6050845" | "6076975" | "6412986" | "6932514").PN. OR ("2011/0091158" | "6331079" | "6361218" | "6364536" | "8920043").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/08/03 17:54
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S258	996	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2018/08/03 20:44
S257	1841	S236 S238 S241 S244 S248 S251 S253 S255 S256	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/03 20:44
S256	98	("4840451").URPN.	USPAT	OR	OFF	2018/08/03 20:44
S255	395	S254 not (S236 S238 S241 S244 S248 S251 S253)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/03 20:44
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S253	149	S252 not (S236 S238 S241 S244 S248 S251)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/03 20:44
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S246	2708	(mt mpo multi) near2 ferrule	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/03 20:44
S245	1356	G02B6/3879.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/03 20:44
S244	97	S243 not (S236 S238 S241)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/03 20:44
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S227	768	S226 and g02b6/$.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/03 20:44
S226	3248	rojas.xa,xp.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/03 20:44
S225	1	S224 not S223	US-PGPUB; USPAT	OR	ON	2018/08/03 20:44
S224	85	S222 and ((fiber optic$3) near3 connect$3).ti,ab,clm.	US-PGPUB; USPAT	OR	ON	2018/08/03 20:44
S223	146	S222 and g02b6/$.cpc.	US-PGPUB; USPAT	OR	ON	2018/08/03 20:44
S222	916	S217 S218 S219 S220 S221	US-PGPUB; USPAT	OR	OFF	2018/08/03 20:44
S221	210	((Joseph) near2 (Howard)).INV.	US-PGPUB; USPAT	OR	OFF	2018/08/03 20:44
S220	32	((Jillcha) near2 (Wakjira)).INV.	US-PGPUB; USPAT	OR	OFF	2018/08/03 20:44
S219	528	((Michael) near2 (Hughes)).INV.	US-PGPUB; USPAT	OR	OFF	2018/08/03 20:44
S218	125	((Darrell) near2 (Childers)).INV.	US-PGPUB; USPAT	OR	OFF	2018/08/03 20:44
S217	132	((Hiep) near2 (Nguyen)).INV.	US-PGPUB; USPAT	OR	OFF	2018/08/03 20:44
S216	77	("20050281509" | "20060063436" | "20100266245" | "4111522" | "5082346" | "5093881" | "5155784" | "5276755" | "5647043" | "5689598" | "5692079" | "5838856" | "6095695" | "6422760" | "7785018").PN. OR ("2005/0281509" | "6095695" | "9086546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/08/03 20:44
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S263	1270	(US-20010026662-$ or US-20010036340-$ or US-20010041030-$ or US-20010043776-$ or US-20010046354-$ or US-20020006253-$ or US-20020025125-$ or US-20020025099-$ or US-20020031313-$ or US-20020076165-$ or US-20020076164-$ or US-20020106162-$ or US-20020114589-$ or US-20020114581-$ or US-20020141723-$ or US-20020150349-$ or US-20020150346-$ or US-20020159710-$ or US-20020168149-$ or US-20020176671-$ or US-20030002818-$ or US-20030012520-$ or US-20030017741-$ or US-20030031452-$ or US-20030031449-$ or US-20030031421-$).did. or (US-20030044127-$ or US-20030044125-$ or US-20030044122-$ or US-20030048996-$ or US-20030063867-$ or US-20030063866-$ or US-20030081910-$ or US-20030087505-$ or US-20030091313-$ or US-20030095754-$ or US-	US-PGPUB; USPAT; JPO; DERWENT	OR	ON	2018/08/05 09:57

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		US-20090238518-$ or US-20090279832-$ or US-20090290838-$ or US-20090317047-$ or US-20100074616-$ or US-20100081303-$ or US-20100092134-$ or US-20100135618-$ or US-20100158446-$ or US-20100202736-$ or US-20100202735-$ or US-20100215319-$ or US-20100226654-$ or US-20100226610-$ or US-20100266245-$ or US-20100278488-$ or US-20100303408-$ or US-20100322554-$ or US-20100329613-$ or US-20110019962-$).did. or (US-20110038590-$ or US-20110044599-$ or US-20110044589-$ or US-20110064361-$ or US-20110081798-$ or US-20110091159-$ or US-20110091158-$ or US-20110150396-$ or US-20110207344-$ or US-20110206324-$ or US-20110222821-$ or US-20110222818-$ or US-20110229678-$ or US-20110243504-$ or US-20110249942-$ or US-20110274437-$ or US-20110286691-$ or US-20110299266-$ or US-20120027355-$ or US-20120027359-$ or US-20120027357-$ or US-20120039571-$ or US-20120057826-$ or US-20120057824-$ or US-20120082416-$ or US-20120093462-$ or US-20120099822-$).did. or (US-20120099819-$ or US-20120128302-$ or US-20120141070-$ or US-20120163757-$ or US-20120213484-$ or US-20120251054-$ or US-20120251051-$ or US-20120263423-$ or US-20120263419-$ or US-20120308183-$ or US-20120305807-$ or US-20120321253-$ or US-20130064506-$ or US-20130077914-$ or US-20130121645-$ or US-20130129280-$ or US-20130156386-$ or US-20130156365-$ or US-20130172664-$ or US-20130170797-$ or US-20130170796-$ or US-20130177280-$ or US-20130183004-$ or US-20130185883-$ or US-20130195396-$ or US-20130209040-$ or US-20130209041-$).did. or (US-20130216189-$ or US-20130230283-$ or US-20130236142-$ or US-20130236140-$ or US-20130243385-$ or US-20130243368-$ or US-20130242506-$ or US-20130240124-$ or US-20130259429-$ or US-20130302004-$ or US-20130308908-$ or US-20130322834-$ or US-20130322825-$ or US-20140044396-$ or US-20140044395-$ or US-20140056560-$ or US-20140064665-$ or US-20140072265-$ or US-20140133807-$ or US-20140133803-$ or US-20140140660-$ or US-20140147081-$ or US-20140193120-$ or US-20140205241-$ or US-20140219615-$ or US-20140219624-$ or US-20140219621-$).did. or (US-20140241671-$ or US-20140241667-$ or US-20140294339-$ or US-20140301701-				

		$ or US-20140314385-$ or US-20140321813-$ or US-20140321814-$ or US-20140321810-$ or US-20150003787-$ or US-20150003785-$ or US-20150023637-$ or US-20150030289-$ or US-20150063815-$ or US-20150104132-$ or US-20150131946-$ or US-20150162982-$ or US-20150160420-$ or US-20150177463-$ or US-20150226922-$ or US-20150241644-$ or US-20150253514-$ or US-20150260927-$ or US-20150260936-$ or US-20150268434-$ or US-20150293310-$ or US-20150301286-$ or US-20150309266-$).did. or (US-20150309279-$ or US-20150326316-$ or US-20150331192-$ or US-20150331201-$ or US-20150338583-$ or US-20150346438-$ or US-20150355417-$ or US-20150355414-$ or US-20150362682-$ or US-20150370017-$ or US-20150378112-$ or US-20160004018-$ or US-20160004016-$ or US-20160025942-$ or US-20160041356-$ or US-20160041357-$ or US-20160062050-$ or US-20160062051-$ or US-20160062049-$ or US-20160077287-$ or US-20160077284-$ or US-20160085045-$ or US-20160091673-$ or US-20160091671-$ or US-20160091670-$ or US-20160103284-$ or US-20160109676-$).did. or (US-20160109661-$ or US-20160131854-$ or US-20160139348-$ or US-20160139342-$ or US-20160139339-$ or US-20160147026-$ or US-20160161688-$ or US-20160161680-$ or US-20160170148-$ or US-20160178857-$ or US-20160178860-$ or US-20160192044-$ or US-20160195681-$ or US-20160202429-$ or US-20160209599-$ or US-20160209610-$ or US-20160223763-$ or US-20160238796-$ or US-20160238789-$ or US-20160259135-$ or US-20160259137-$ or US-20160266339-$ or US-20160266340-$ or US-20160282566-$ or US-20160282565-$ or US-20160282562-$ or US-20160306125-$).did. or (US-20160313511-$ or US-20160320566-$ or US-20160341909-$ or US-20160349464-$ or US-20160349458-$ or US-20160370549-$ or US-20170003458-$ or US-20170010422-$ or US-20170045703-$ or US-20170045700-$ or US-20170059784-$ or US-20170082806-$ or US-20170090127-$ or US-20170097472-$ or US-20170102506-$ or US-20170102505-$ or US-20170102504-$ or US-20170108430-$ or US-20170139152-$ or US-20170146748-$ or US-20170153396-$ or US-20170160496-$ or US-20170160486-$ or US-20170168256-$ or US-20170168248-$ or US-20170176694-$ or US-20170176691-$).did. or (US-				

		20170184800-$ or US-20170184798-$ or US-20170192182-$ or US-20170192181-$ or US-20170199338-$ or US-20170199337-$ or US-20170205591-$ or US-20170205590-$ or US-20170205589-$ or US-20170205587-$ or US-20170212321-$ or US-20170212316-$ or US-20170227720-$ or US-20170227718-$ or US-20170254965-$ or US-20170254961-$ or US-20170269309-$ or US-20170276887-$ or US-20170276883-$ or US-20170293090-$ or US-20170293088-$ or US-20170351037-$ or US-20170357060-$ or US-20180024302-$ or US-20180024294-$ or US-20180031783-$ or US-20180045894-$).did. or (US-20180052287-$ or US-20180077472-$ or US-20180074277-$ or US-20180081129-$ or US-20180081127-$ or US-20180088288-$ or US-20180100976-$ or US-20180136416-$ or US-20180136414-$ or US-20180136413-$ or US-20180156988-$ or US-20180156985-$ or US-20180164513-$ or US-20180210155-$ or US-20180217339-$ or US-20180217337-$).did. or (US-4045121-$ or US-4056305-$ or US-4110000-$ or US-4111522-$ or US-4142776-$ or US-4186997-$ or US-4201444-$ or US-4218113-$ or US-4225214-$ or US-4240695-$ or US-4253730-$ or US-4320938-$ or US-4330172-$ or US-4432602-$ or US-4478485-$ or US-4526430-$ or US-4550362-$ or US-4575183-$ or US-4647130-$ or US-4687291-$ or US-4699454-$ or US-4725117-$ or US-4737009-$ or US-4765700-$ or US-4767179-$ or US-4772087-$).did. or (US-4779950-$ or US-4787701-$ or US-4801191-$ or US-4820185-$ or US-4820169-$ or US-4854664-$ or US-4881792-$ or US-4886335-$ or US-4948407-$ or US-4950048-$ or US-4964690-$ or US-5002357-$ or US-5064268-$ or US-5076656-$ or US-5082346-$ or US-5082344-$ or US-5091991-$ or US-5093881-$ or US-5101463-$ or US-5109453-$ or US-5121454-$ or US-5125056-$ or US-5129024-$ or US-5134679-$ or US-5134673-$ or US-5140663-$ or US-5155784-$).did. or (US-5157749-$ or US-5159654-$ or US-5166995-$ or US-5168537-$ or US-5194117-$ or US-5199093-$ or US-5212751-$ or US-5214730-$ or US-5216732-$ or US-5222168-$ or US-5228865-$ or US-5245683-$ or US-5257947-$ or US-5325455-$ or US-5386487-$ or US-5398295-$ or US-5428703-$ or US-5428702-$ or US-5461692-$ or US-5506922-$ or US-5511138-$ or US-5519799-$ or US-5528711-$ or US-				

		5537501-$ or US-5542015-$ or US-5548677-$ or US-5550943-$).did. or (US-5553180-$ or US-5555332-$ or US-5579425-$ or US-5600747-$ or US-5604830-$ or US-5611013-$ or US-5611010-$ or US-5613025-$ or US-5619604-$ or US-5631807-$ or US-5633969-$ or US-5647043-$ or US-5666456-$ or US-5675682-$ or US-5689598-$ or US-5692079-$ or US-5727097-$ or US-5727102-$ or US-5729644-$ or US-5748821-$ or US-5778122-$ or US-5778121-$ or US-5796896-$ or US-5799122-$ or US-5809191-$ or US-5838856-$ or US-5845027-$).did. or (US-5867621-$ or US-5870515-$ or US-5883995-$ or US-5883998-$ or US-5909526-$ or US-5915058-$ or US-5920670-$ or US-5920669-$ or US-5921796-$ or US-5930426-$ or US-5956444-$ or US-5960138-$ or US-5960137-$ or US-5960136-$ or US-5963698-$ or US-5980117-$ or US-5984533-$ or US-6004044-$ or US-6007256-$ or US-6012852-$ or US-6024498-$ or US-6045270-$ or US-6048102-$ or US-6050845-$ or US-6056448-$ or US-6059461-$ or US-6076975-$).did. or (US-6081647-$ or US-6079881-$ or US-6095695-$ or US-RE36820-$ or US-6109797-$ or US-6116790-$ or US-6116788-$ or US-6134370-$ or US-6132105-$ or US-6135644-$ or US-6146023-$ or US-6149313-$ or US-6154597-$ or US-6152607-$ or US-6155722-$ or US-6179627-$ or US-6196732-$ or US-6201704-$ or US-6203333-$ or US-6210045-$ or US-6213651-$ or US-6220878-$ or US-6220873-$ or US-6220762-$ or US-6224269-$ or US-6227719-$ or US-6240229-$).did. or (US-6240228-$ or US-6256448-$ or US-6259856-$ or US-6257769-$ or US-6261006-$ or US-6264374-$ or US-6267514-$ or US-6276839-$ or US-6290527-$ or US-6302591-$ or US-6305848-$ or US-6318902-$ or US-6331079-$ or US-6351590-$ or US-6352374-$ or US-6352372-$ or US-6357934-$ or US-6357928-$ or US-6361218-$ or US-6364539-$ or US-6364536-$ or US-6371659-$ or US-6377840-$ or US-6379052-$ or US-6384896-$ or US-6386767-$ or US-6390690-$).did. or (US-6398422-$ or US-6402393-$ or US-6402388-$ or US-6406192-$ or US-6409392-$ or US-6412986-$ or US-6415471-$ or US-6416236-$ or US-6419399-$ or US-6422761-$ or US-6422760-$ or US-6422759-$ or US-6425692-$ or US-6425693-$ or US-6434316-$ or US-6434315-$ or US-					

		6442318-$ or US-6445867-$ or US-6450698-$ or US-6450697-$ or US-6454464-$ or US-6461053-$ or US-6471417-$ or US-6471412-$ or US-6481900-$ or US-6481899-$ or US-6487343-$).did. or (US-6485192-$ or US-6491442-$ or US-6497516-$ or US-6504968-$ or US-6505975-$ or US-6513989-$ or US-6520687-$ or US-6526191-$ or US-6530696-$ or US-6533465-$ or US-6533463-$ or US-6554486-$ or US-6572272-$ or US-6572275-$ or US-D476626-$ or US-D476625-$ or US-D476624-$ or US-6585425-$ or US-6592266-$ or US-6597852-$ or US-6600611-$ or US-6601998-$ or US-6607308-$ or US-6619859-$ or US-6623173-$ or US-6623172-$ or US-6629781-$).did. or (US-6632030-$ or US-6632023-$ or US-6659655-$ or US-6667803-$ or US-6688782-$ or US-6688780-$ or US-6692159-$ or US-6701038-$ or US-6698937-$ or US-6702593-$ or US-6705767-$ or US-6712521-$ or US-6764222-$ or US-6769811-$ or US-6789953-$ or US-6789950-$ or US-6796715-$ or US-6798931-$ or US-6811321-$ or US-6839583-$ or US-6840680-$ or US-6851867-$ or US-6860643-$ or US-6863448-$ or US-6870987-$ or US-6873800-$ or US-6901221-$).did. or (US-6923578-$ or US-6926449-$ or US-6932514-$ or US-6942395-$ or US-6952532-$ or US-6976792-$ or US-6986607-$ or US-6994478-$ or US-7011454-$ or US-7013088-$ or US-7011456-$ or US-7052186-$ or US-7090509-$ or US-7108430-$ or US-7116912-$ or US-7118282-$ or US-7118281-$ or US-7130522-$ or US-7128474-$ or US-7149392-$ or US-7193492-$ or US-7200001-$ or US-7203387-$ or US-7204016-$ or US-7229308-$ or US-7234877-$ or US-7258493-$).did. or (US-7267568-$ or US-7274851-$ or US-7281858-$ or US-7297013-$ or US-7296935-$ or US-7316578-$ or US-7318751-$ or US-RE40150-$ or US-7364366-$ or US-7382954-$ or US-7399126-$ or US-7444049-$ or US-7476035-$ or US-7512297-$ or US-7534050-$ or US-7556436-$ or US-7585119-$ or US-7585116-$ or US-7588373-$ or US-7621676-$ or US-7625129-$ or US-7661886-$ or US-7676134-$ or US-7674046-$ or US-7712970-$ or US-7785142-$ or US-7785018-$).did. or (US-7835006-$ or US-7942588-$ or US-7997805-$ or US-8023794-$ or US-8070366-$ or US-8083416-$ or US-8152386-$ or US-8152385-$ or US-8210861-$ or US-						

		8270796-$ or US-8287306-$ or US-8388235-$ or US-8412052-$ or US-8408815-$ or US-8408810-$ or US-8430572-$ or US-8434948-$ or US-8452150-$ or US-8465317-$ or US-8517614-$ or US-8540435-$ or US-8573857-$ or US-8628252-$ or US-8636425-$ or US-8641292-$ or US-8678669-$ or US-8708574-$).did. or (US-8814445-$ or US-8821031-$ or US-8834038-$ or US-8886046-$ or US-8934752-$ or US-8974124-$ or US-9042736-$ or US-9081156-$ or US-9091822-$ or US-9122020-$ or US-9164249-$ or US-9176285-$ or US-9182555-$ or US-9188747-$ or US-9207454-$ or US-9268102-$ or US-9268103-$ or US-9274287-$ or US-9285552-$ or US-9291782-$ or US-9291781-$ or US-9297964-$ or US-9331424-$ or US-9354407-$ or US-9360649-$ or US-9372320-$ or US-9377591-$).did. or (US-9383539-$ or US-9401578-$ or US-9417406-$ or US-9477049-$ or US-9482825-$ or US-9482827-$ or US-9482820-$ or US-9494746-$ or US-9494745-$ or US-9513446-$ or US-9543698-$ or US-9541718-$ or US-9541712-$ or US-9599778-$ or US-9606303-$ or US-9612405-$ or US-9618703-$ or US-9618702-$ or US-9625663-$ or US-9632273-$ or US-9653861-$ or US-9651741-$ or US-9664864-$ or US-9664862-$ or US-9664861-$ or US-9671574-$ or US-9678283-$).did. or (US-9678286-$ or US-9685782-$ or US-9684139-$ or US-9699723-$ or US-9696504-$ or US-9696497-$ or US-9703062-$ or US-9703038-$ or US-9709752-$ or US-9720193-$ or US-9720188-$ or US-9720184-$ or US-9720183-$ or US-9720182-$ or US-9726830-$ or US-9729251-$ or US-9778425-$ or US-9785175-$ or US-9791635-$ or US-9798092-$ or US-9804340-$ or US-9823428-$ or US-9829658-$ or US-9835804-$ or US-9835803-$ or US-9857538-$ or US-9877413-$).did. or (US-9874702-$ or US-9880361-$ or US-9891387-$ or US-9912097-$ or US-9910228-$ or US-9933582-$ or US-9958623-$ or US-10001605-$ or US-10012808-$ or US-10018787-$ or US-10036859-$).did. or (JP-54160249-$ or JP-55076316-$ or JP-55101904-$ or JP-56060409-$ or JP-56066811-$ or JP-59157605-$ or JP-60135912-$ or JP-61285409-$ or JP-62070805-$ or JP-62111215-$ or JP-01177508-$ or JP-02280105-$ or JP-04214510-$ or JP-04220604-$ or JP-04229810-$ or JP-05107430-$ or JP-05313040-$ or JP-07191235-$ or JP-				

		07248434-$ or JP-08015541-$ or JP-08110439-$ or JP-09005575-$ or JP-09145959-$ or JP-09145957-$ or JP-09258063-$ or JP-10050400-$).did. or (JP-10073742-$ or JP-10082929-$ or JP-10104469-$ or JP-10111433-$ or JP-10311934-$ or JP-11064684-$ or JP-11072659-$ or JP-11258461-$ or JP-11258458-$ or JP-11281849-$ or JP-11326694-$ or JP-11337771-$ or JP-11337768-$ or JP-11344642-$ or JP-2000066059-$ or JP-2000131562-$ or JP-2000180666-$ or JP-2000284150-$ or JP-2000284146-$ or JP-2000292655-$ or JP-2000310724-$ or JP-2000338369-$ or JP-2001154062-$ or JP-2001201667-$ or JP-2001215361-$ or JP-2001242361-$ or JP-2001296449-$).did. or (JP-2002048946-$ or JP-2002098860-$ or JP-2002107577-$ or JP-2002139654-$ or JP-2002148481-$ or JP-2002148480-$ or JP-2002333551-$ or JP-2002333548-$ or JP-2003004980-$ or JP-2003029074-$ or JP-2003202460-$ or JP-2004045935-$ or JP-2004139138-$ or JP-2004145005-$ or JP-2004177417-$ or JP-2005077846-$ or JP-2005077838-$ or JP-2005077837-$ or JP-2005292643-$ or JP-2005345995-$ or JP-2008040264-$ or JP-2008064990-$ or JP-2008096703-$ or JP-2009037268-$ or JP-2009217062-$ or JP-2010276657-$ or JP-2011076003-$).did. or (JP-2011215364-$ or JP-2012053420-$ or JP-2012078513-$ or JP-2012120095-$ or JP-2013186473-$ or JP-2013235229-$ or JP-2014164100-$ or JP-2015022131-$ or JP-2015049260-$ or JP-2015200912-$ or JP-2015228025-$ or JP-2016009081-$ or JP-2016053711-$ or JP-2016057540-$ or JP-2016062089-$ or JP-2016085422-$ or JP-2016095432-$ or JP-2016095410-$ or JP-2016122100-$ or JP-2017138535-$ or JP-2017191330-$ or JP-2018010274-$).did. or (US-4045121-$ or US-4056305-$ or DE-2742084-$ or DE-2652713-$ or DE-2805949-$ or DE-2932986-$ or EP-8329-$ or US-4310218-$ or GB-2098354-$ or GB-2151040-$ or WO-8504493-$ or WO-8504492-$ or WO-8600147-$ or EP-182577-$ or GB-2176629-$ or EP-216470-$ or EP-249237-$ or EP-277390-$ or US-4820185-$ or EP-323920-$ or WO-9015350-$ or US-5064268-$ or WO-9117540-$ or EP-458608-$ or WO-9202836-$ or US-5101463-$).did. or (EP-490698-$ or US-5134673-$ or EP-505197-$ or EP-430107-$ or EP-514722-$ or WO-9323777-$ or US-5386487-$ or EP-696748-$ or EP-697608-$ or EP-712015-$ or US-5519799-$ or EP-723169-$ or EP-729048-$ or WO-9627811-$ or US-5579425-$ or DE-19539549-$ or EP-758099-$ or EP-				

		758098-$ or GB-2306696-$ or JP-09145959-$ or WO-9734176-$ or US-5689598-$ or WO-9746900-$ or DE-19626036-$ or EP-821253-$ or EP-848267-$ or WO-9853347-$).did. or (WO-9857208-$ or EP-916974-$ or US-5909526-$ or WO-9928773-$ or EP-927898-$ or EP-935147-$ or WO-9947958-$ or EP-949522-$ or WO-9964917-$ or EP-969299-$ or EP-969298-$ or WO-0008503-$ or GB-2341455-$ or EP-997753-$ or EP-1014126-$ or EP-1016886-$ or JP-2000199833-$ or EP-1054278-$ or WO-0070381-$ or WO-0075701-$ or EP-1092995-$ or EP-1092994-$ or WO-0140839-$ or EP-1116974-$ or EP-1124147-$ or CA-2339502-$ or WO-0179904-$).did. or (EP-1150149-$ or US-20010036340-$ or WO-0181965-$ or US-20010041030-$ or EP-1168020-$ or EP-1168017-$ or EP-1168018-$ or EP-1168016-$ or EP-1172673-$ or EP-1172672-$ or DE-20118858-$ or WO-0219002-$ or WO-02056060-$ or US-6422760-$ or WO-02061481-$ or EP-1257012-$ or US-20030031448-$ or US-20030031437-$ or US-20030044125-$ or US-20030123810-$ or WO-03094297-$ or WO-2004008214-$ or WO-2004008213-$ or US-20040062498-$ or EP-1413906-$ or US-20040105628-$ or US-20040223699-$).did. or (US-20040223701-$ or US-20040228589-$ or US-20050036744-$ or WO-2005022227-$ or US-20050053342-$ or US-20060029334-$ or US-20060233506-$ or US-20060257092-$ or EP-1752805-$ or US-20070077010-$ or US-20070098327-$ or US-20070127872-$ or US-20070160327-$ or WO-2007128118-$ or US-20070292096-$ or EP-1990665-$ or US-20090041411-$ or WO-2009023673-$ or US-20090060423-$ or WO-2009110421-$ or US-20090238518-$ or US-20090238519-$ or EP-2105773-$ or US-20090290838-$ or US-20090317047-$ or US-20100014824-$ or US-20100074616-$).did. or (EP-2189831-$ or WO-2010068896-$ or WO-2010090211-$ or US-20100215322-$ or WO-2010099141-$ or EP-2251724-$ or WO-2010137426-$ or WO-2010138446-$ or US-20100310213-$ or US-20100322554-$ or KR-2011002571-$ or WO-2011011510-$ or WO-2011019581-$ or WO-2011022728-$ or US-20110081798-$ or US-20110150396-$ or WO-2011116162-$ or US-20110243504-$ or US-20110249942-$ or US-20110274437-$ or KR-2012000895-$ or US-20120027355-$ or US-20120027359-$ or US-20120057824-$ or US-20120082416-$ or EP-2444827-$ or US-				

		20120099822-$).did. or (US-20120134629-$ or JP-2012120095-$ or WO-2012106510-$ or WO-2012106513-$ or WO-2012106518-$ or US-20120251051-$ or US-20120251054-$ or US-20120263419-$ or US-20120263423-$ or US-20120308183-$ or US-20120308190-$ or WO-2013019622-$ or WO-2013019189-$ or TW-201309089-$ or WO-2013028491-$ or US-20130089293-$ or US-20130121645-$ or WO-2013077969-$ or US-20130170796-$ or US-20130177280-$ or WO-2013115789-$ or WO-2013115791-$ or US-20130209041-$ or WO-2013122865-$ or WO-2013126429-$ or US-20130230283-$ or EP-2637049-$).did. or (US-20130259429-$ or US-20130302004-$ or US-20130322825-$ or US-20140044395-$ or US-20140044396-$ or EP-2700992-$ or US-20140056561-$ or JP-5433802-$ or US-20140072265-$ or CN-103645545-$ or WO-2014052446-$ or AU-2014100325-$ or US-20140147081-$ or US-20140153879-$ or WO-2014113753-$ or US-20140205241-$ or US-20140219615-$ or US-20140241667-$ or US-20140294339-$ or WO-2014165175-$ or US-20140314385-$ or US-20140321808-$ or WO-2014186436-$ or DE-202014103659-$ or US-20140363131-$ or EP-2818903-$ or AU-2014101479-$).did. or (US-20150023637-$ or WO-2015029585-$ or WO-2015047380-$ or US-20150110446-$ or US-20150131946-$ or US-20150162982-$ or US-20150177463-$ or WO-2015103783-$ or WO-2015116589-$ or US-20150219864-$ or WO-2015126905-$ or US-20150241644-$ or WO-2015144883-$ or WO-2015150149-$ or US-20150286012-$ or WO-2015158564-$ or DE-102015106225-$ or US-20150309279-$ or JP-5805344-$ or US-20150331201-$ or EP-2947485-$ or US-20150355417-$ or WO-2015191024-$ or US-20150370017-$ or US-20160004016-$ or US-20160004018-$ or WO-2016033577-$).did. or (WO-2016033578-$ or WO-2016033579-$ or WO-2016033580-$ or WO-2016039383-$ or US-20160077284-$ or US-20160082387-$ or WO-2016043922-$ or WO-2016044565-$ or US-20160085032-$ or US-20160085045-$ or US-20160091673-$ or WO-2016049208-$ or US-20160091670-$ or WO-2016053852-$ or WO-2016053853-$ or WO-2016053673-$ or JP-5905950-$ or US-20160109676-$ or WO-2016068966-$ or US-20160131854-$ or EP-3021144-$ or EP-3021146-$ or US-20160139345-$ or US-20160147021-$ or WO-2016082160-$ or WO-2016082100-$ or US-				

		20160161681-$).did. or (WO-2016086881-$ or US-20160161680-$ or US-20160178852-$ or US-9377591-$ or US-20160195682-$ or US-20160195688-$ or US-20160223763-$ or WO-2016123128-$ or US-20160223757-$ or US-20160238789-$ or WO-2016137934-$ or US-20160259135-$ or US-20160259137-$ or US-20160282566-$ or WO-2016161341-$ or EP-3078999-$ or US-20160306124-$ or US-20160306125-$ or US-9482825-$ or US-20160341911-$ or US-20160349464-$ or US-20160370549-$ or US-20160377819-$ or WO-2017003934-$ or US-20170003456-$ or US-20170031106-$ or US-20170045702-$).did. or (US-20170045695-$ or US-20170059784-$ or US-20170090127-$ or US-20170102504-$ or US-20170139156-$ or US-9678283-$ or US-20170192182-$ or US-20170205587-$ or US-20170205591-$ or US-20170212316-$ or JP-6173629-$ or US-9726830-$ or US-20170227718-$ or US-20170242199-$ or US-20170254967-$ or US-20170254966-$ or US-20170285277-$ or US-20170293088-$ or US-20170293089-$ or US-9823428-$ or US-20170343760-$ or US-20170357060-$ or US-20170371109-$ or US-20180011261-$ or US-20180052287-$ or US-20180081128-$ or US-9933582-$).did. or (US-20180100982-$ or US-20180106973-$ or US-20180106974-$ or US-20180120519-$ or US-20180128988-$ or US-20180156985-$ or US-10018787-$).did.				
S262	746	S260 and S261	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/05 09:57
S261	2695	G02B6/3873,3881.cpc.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/05 09:57
S260	9852	G02B6/3885.cpc.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/05 09:57
S265	669	S262 not (S263 S264)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/08/05 09:58

EAST Search History (Interference)

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8/ 6/ 2018 2:25:15 PM
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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15855788
Filing Date	2017-12-27
First Named Inventor	Hiep V. Nguyen
Art Unit	
Examiner Name	
Attorney Docket Number	USCO-053-02

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/ORR/	1	5129024		1992-07-01	Honma	
/ORR/	2	6331079		2001-12-01	Grois	

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/ORR/	1	20110091158		2011-04-01	Iwaya	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15855788
Filing Date	2017-12-27
First Named Inventor	Hiep V. Nguyen
Art Unit	
Examiner Name	
Attorney Docket Number	USCO-053-02

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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EXAMINER SIGNATURE

Examiner Signature	/Omar R Rojas/	Date Considered	08/03/2018

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15855788	NGUYEN ET AL.
	Examiner	Art Unit
	OMAR R ROJAS	2883

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
Checked refs. for 14/214,931	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/03/18	/O.R./
EAST (PGPUB,USPAT,FPRS,EPAB,JPAB,DWPI,IBMT) - See Search History Printout.	08/05/18	/O.R./

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/OMAR R ROJAS/ Primary Examiner.Art Unit 2883

Senko Ex. 1014, Page 235
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/855,788	Filing Date 12/27/2017	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)		
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

		(Column 1)		(Column 2)	(Column 3)		
AMENDMENT	06/14/2018	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $100 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)		
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SLIE
LATASHA SMITH

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Hiep V. Nguyen	Group Art Unit:	2883
Serial No.:	15/855,788	Examiner:	Omar R ROJAS
Filing Date:	December 27, 2017		
Title:	Alignment Adapter and Alignment Design for a Connector Therefor		

Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

RESPONSE TO ELECTION/RESTRICTION and AMENDMENT

Dear Sir:

In response to the Election/Restriction Requirement mailed on May 9, 2018,

Applicant amends the application and responds as follows:

IN THE SPECIFICATION:

Please replace paragraph [0036] with the revised new paragraph:

The position of the ferrule holders **300** on the first side **106** of the adapter relative to the ferrule holders **300** on the second side **108** is what allows the optical ferrules to be aligned with one another. There is no need, as discussed above, to worry about the stacking of tolerances as in the prior art. The positioning of the projections **320,322** on the ferrule holders **300** relative to the plurality of grooves **140**, **142** is important. With reference to Figs. 7A and 7B, the projections **320,322** are used to control the x and y locations of the ferrule holders **300**. The ~~surfaces **350**~~ surfaces **340** of the projections **320,322** (Fig. 7A) align with the surfaces **150** in the adapter (Fig. 7B) to control the x direction of the ferrule holder **300** relative to the adapter **100**. The surfaces **352** of the ferrule holder **300** align with the surfaces ~~**352** of~~ **152** of the raised bottom portion **132** and the dropped top portion **134** of the center portion **110** to control the y direction of the ferrule holder **300** relative to the adapter **100**. The surfaces of the projections **320,322** could also align in the y direction, given that they are parallel to the surfaces **352**.

IN THE DRAWINGS:

Please replace FIG. 8 with the attached new FIG. 8. Applicant noticed that in FIG. 8, element 132 did not have a lead line. A lead line has been added in the replacement figure. No new matter has been added.

IN THE CLAIMS:

Claims 1-11, 14, and 18-21. Canceled.

12. (Currently Amended) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter~~, the projection on opposite outside surfaces extend from the first end rearwardly toward the second end~~.

13. (Previously Presented) The ferrule holder according to claim 12, where the projections engage a groove in a plug.

14. Canceled.

15. (Previously Presented) The ferrule holder according to claim 12, further comprising a cantilevered latch attached to an outside surface of the main body between the second end and one of the projections and extending from a center portion of the main body towards the second end.

16. (Previously Presented) The ferrule holder according to claim 12, wherein the main body has a top surface, a bottom surface and two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

17. (Previously Presented) The ferrule holder according to claim 16, further comprising a cantilevered latch attached to an outside surface of the main body and wherein the cantilevered latch and the projections are attached to one of the top surface and the bottom surface.

Claims 18-21. Canceled.

22. (New) The ferrule holder according to claim 12, wherein at least one of the projections extends from the first end rearwardly toward the second end.

23. (New) The ferrule holder according to claim 12, wherein at least one of the projections extends along a length of the ferrule holder.

24. (New) The ferrule holder according to claim 12, wherein at least one of the projections has a chamfered front end.

25. (New) The ferrule holder according to claim 12, wherein one of the projections is on a first surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second surface.

26. (New) The ferrule holder according to claim 25, wherein the first surface is a top surface of the main body and the opposite second surface is a bottom surface of the main body, or vice versa.

27. (New) The ferrule holder according to claim 25, wherein the at least one dimension is a width of the projection.

28. (New) The ferrule holder according to claim 25, wherein the at least one dimension is a height of the projection.

29. (New) The ferrule holder according to claim 12, wherein the projections slidingly engage a corresponding groove in a plug.

30. (New) The ferrule holder according to claim 12, wherein the projections have a vertical side surface to align the ferrule holder with a vertical wall of a corresponding groove of a plug to control a horizontal direction of movement of the ferrule holder relative to the adapter.

31. (New) The ferrule holder according to claim 12, wherein the projections have a horizontal top surface to align the ferrule holder with a horizontal wall of a corresponding groove of a plug to control a vertical direction of movement of the ferrule holder relative to the adapter.

32. (New) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter, the projections extending along a length of the main body.

33. (New) The ferrule holder according to claim 32, wherein one of the projections is on a first surface of the main body of the ferrule holder and has at least one dimension that is different than the other projection on an opposite second surface.

34. (New) The ferrule holder according to claim 33, wherein the first surface is a top surface of the main body and the opposite second surface is a bottom surface of the main body, or vice versa.

35. (New) The ferrule holder according to claim 32, wherein the projections have surfaces to control movement of the main body relative to the adapter.

36. (New) A ferrule holder comprising:

a main body;

a central opening in the main body and extending from a first end to a second end to retain a fiber optic ferrule therein, the first end having an opening therein in communication with the central opening, the second end disposed opposite the first end and configured to receive optical fibers therethrough; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter, the projections having surfaces to the control movement of the main body relative to the adapter.

REMARKS

In the above-referenced Office Action, the Examiner required the restriction to one of two inventions under 35 U.S.C. § 121: Invention I corresponding to claims 8-11, 14, and 18-21 and Invention II corresponding to claims 12, 13, and 15-17. Applicant chooses the apparatus claims of Invention II, corresponding to claims 12, 13, and 15-17 and added new claims 22-36. The new claims correspond to the elected Invention and further define the invention.

Applicant has also corrected some typographical errors in the specification in [0036] and in some of the claims. Applicant has also provided a revised FIG. 8 to add a lead line. No new matter has been added.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

/Michael L. Leetzow/
Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct
Sanford, FL 32771
Telephone: 407/302-9970

Date: June 14, 2018

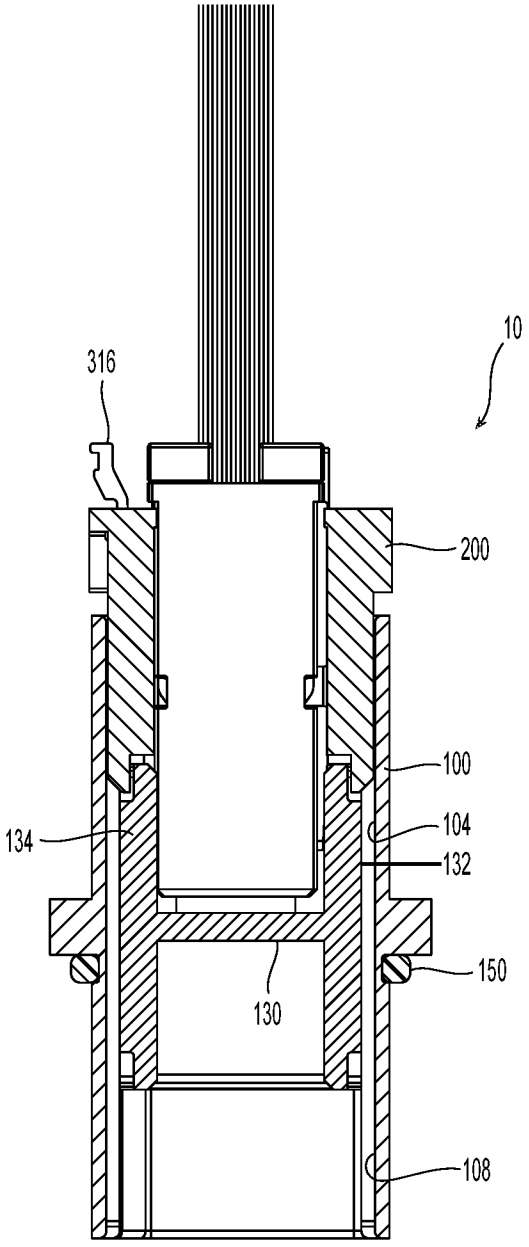


Fig. 8

Electronic Acknowledgement Receipt

EFS ID:	32902725
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	14-JUN-2018
Filing Date:	27-DEC-2017
Time Stamp:	16:53:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response to Election / Restriction Filed	ResponseRestrictionUSCO05302.pdf	81527 ff14ca11802d2647a4b92db43e30b8492de4a5a1	no	8

Warnings:

Information:					
2	Drawings-only black and white line drawings	Fig8RevisedUSCO05302.pdf	93153 13efbf77284df04f419fc6377f4603ffd575d837	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	174680	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02	9525

152017 7590 05/09/2018

Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

EXAMINER
ROJAS, OMAR R

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
05/09/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael@leetzow.com
eofficeaction@appcoll.com
ssengupta@usconec.com

Office Action Summary	Application No. 15/855,788	Applicant(s) NGUYEN ET AL.	
	Examiner Omar R. Rojas	Art Unit 2883	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *8-21* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☐ Claim(s) _____ is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☒ Claim(s) *8-21* are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Senko Ex. 1014, Page 2 of 2 20240426
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 8-11, 14, and 18-21 drawn to a plug to hold a plurality of ferrule holders, classified in G02B6/3879.

II. Claims 12, 13, and 15-17, drawn to a ferrule holder comprising a projection on opposite outside surfaces extend(ing) from the first end rearwardly toward the second end, classified in G02B6/3873.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require a projection on opposite outside surfaces extend(ing) from the first end rearwardly toward the second end. The subcombination has separate utility such as for connecting directly to a light source without using the plug and/or for holding different types of ferrules.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the

allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

4. Restriction for examination purposes as indicated is proper because all the inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and/or examination burden if restriction were not required because one or more of the following reasons apply:

--the inventions have acquired a separate status in the art in view of their different classification

--the inventions require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search strategies or search queries).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention**.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to

petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103 or pre-AIA 35 U.S.C. 103(a) of the other invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be corrected in compliance with 37 CFR 1.48(a) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. A request to correct inventorship under 37 CFR 1.48(a) must be accompanied by an application data sheet in accordance with 37 CFR 1.76 that identifies each inventor by his or her legal name and by the processing fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar R. Rojas whose telephone number is (571)272-2357. The examiner can normally be reached on Monday-Thursday (10:00AM-08:00PM).

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thomas Hollweg can be reached on (571) 270-1739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Omar R Rojas/
Primary Examiner
Art Unit 2883

or
April 26, 2018

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02

CONFIRMATION NO. 9525

152017
Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

PUBLICATION NOTICE

OC000000098910711

Title: Alignment Adapter and Alignment Design for a Connector Therefor

Publication No.US-2018-0106973-A1
Publication Date:04/19/2018

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15855788
Filing Date	2017-12-27
First Named Inventor	Hiep V. Nguyen
Art Unit	
Examiner Name	
Attorney Docket Number	USCO-053-02

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5129024		1992-07-01	Honma	
	2	6331079		2001-12-01	Grois	

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	1	20110091158		2011-04-01	Iwaya	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15855788
	Filing Date	2017-12-27
	First Named Inventor	Hiep V. Nguyen
	Art Unit	
	Examiner Name	
	Attorney Docket Number	USCO-053-02

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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	Application Number	15855788
	Filing Date	2017-12-27
	First Named Inventor	Hiep V. Nguyen
	Art Unit	
	Examiner Name	
	Attorney Docket Number	USCO-053-02

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Michael L. Leetzow/	Date (YYYY-MM-DD)	2018-04-11
Name/Print	Michael Leetzow	Registration Number	35932

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	32303431
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	11-APR-2018
Filing Date:	27-DEC-2017
Time Stamp:	08:41:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	20180411_USCO05302.pdf	1053156 f3914b1206b35c39cadc81bdf379c9b0316593b4	no	4

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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02

CONFIRMATION NO. 9525

POA ACCEPTANCE LETTER

152017
Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

OC000000096920051

Date Mailed: 01/26/2018

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/23/2018.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/dgela/

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
15/855,788	12/27/2017	2883	1600	USCO-053-02	14	3

CONFIRMATION NO. 9525

CORRECTED FILING RECEIPT

152017
Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

OC000000098825536

Date Mailed: 01/23/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Hiep V. Nguyen, Fort Mill, SC;
Darrell R. Childers, Hickory, NC;
Michael E. Hughes, Hickory, NC;
Jillcha Fekadu Wakjira, Hickory, NC;
Joseph P. Howard, Hickory, NC;

Applicant(s)

US Conec, Ltd., Hickory, NC;

Assignment For Published Patent Application

US Conec, Ltd, Hickory, NC

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 14/214,931 03/15/2014 PAT 9857538
which claims benefit of 61/789,499 03/15/2013

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 01/09/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/855,788**

Projected Publication Date: 04/19/2018

Non-Publication Request: No

Early Publication Request: No

Title

Alignment Adapter and Alignment Design for a Connector Therefor

Preliminary Class

385

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

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countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop

technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 01/31/2018. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	15/855,788
Filing Date	2017-12-27
First Named Inventor	Hiep V. Nguyen
Title	Alignment Adapter and Alignment Design for a Connector Therefor
Art Unit	
Examiner Name	
Attorney Docket Number	USCO-053-02

SIGNATURE of Applicant or Patent Practitioner

Signature		Date (Optional)	
Name	Michael L. Leetzow	Registration Number	35932
Title (if Applicant is a juristic entity)	Patent Practitioner		
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/80 (07-12)
Approved for use through 11/30/2014. OMB 0651-0035
U.S. Patent and Trademark Office; U.S DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

■ Practitioners associated with Customer Number: 152017

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

■ The address associated with Customer Number: 152017

OR

☐

Firm or Individual Name			
Address			
City		State	Zip
Country			
Telephone		Email	

Assignee Name and Address: US Conec, Ltd.
1138 25th Street SE
Hickory, NC 28603

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	
Name	Joseph L. Graham	Telephone	828 267 6323
Title	President		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: US Conec, Ltd

Application No./Patent No.: 15/855,788 Filed/Issue Date: 12/27/2017

Titled: Alignment Adapter and Alignment Design for a Connector Therefor

US Conec, Ltd, a limited liability company

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 044494, Frame 0006, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

   1. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

   2. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature	Date: 1/23/18
Michael L. Leetzow	35932
Printed or Typed Name	Title or Registration Number

Electronic Acknowledgement Receipt

EFS ID:	31574815
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	23-JAN-2018
Filing Date:	27-DEC-2017
Time Stamp:	09:17:49
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		POAFinal.pdf	849546 b2230600ddd21fccc47c4ab07463dad6e2d28f06	yes	4

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Power of Attorney	1	2
	Assignee showing of ownership per 37 CFR 3.73	3	4
Warnings:			
Information:			
	Total Files Size (in bytes):	849546	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02

CONFIRMATION NO. 9525

IMPROPER CPOA LETTER

152017
Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

OC000000096734917

Date Mailed: 01/18/2018

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 01/14/2018. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney has not been accepted because the party who is giving power has not been identified. Power of attorney may only be signed by the applicant for patent (37 CFR 1.42) or the patent owner. A party who is not the applicant must become the applicant in accordance with 37 CFR 1.46(c) and appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. For a reissue application, reexamination proceeding, or supplemental examination proceeding, a patent owner who was not the applicant under 37 CFR 1.46 must appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. See 37 CFR 1.32(b)(4).

/ngfissha/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/855,788	12/27/2017	Hiep V. Nguyen	USCO-053-02

CONFIRMATION NO. 9525

IMPROPER CFR REQUEST

152017
Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

OC000000096734939

Date Mailed: 01/18/2018

RESPONSE TO REQUEST FOR CORRECTED FILING RECEIPT

Power of Attorney, Claims, Fees, System Limitations, and Miscellaneous

In response to your request for a corrected Filing Receipt, the Office is unable to comply with your request because:

- Any request to correct or update the name of the applicant must include an application data sheet (ADS) in compliance with 37 CFR 1.76 specifying the correct or updated name of the applicant in the applicant information section. Any request to change the applicant after an original applicant has been specified under 37 CFR 1.46(b) must include a new ADS in compliance with 37 CFR 1.76 specifying the applicant in the applicant information section and comply with 37 CFR 3.71 and 3.73. See 37 CFR 1.46(c).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/ngfissha/

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Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Document Description: Application Data Sheet to update/correct info
Doc Code: ADS.CORR

CORRECTED ADS FORM

Application Number	15855788
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor

Inventor Information

****If no data is shown, no data has been corrected****

	Data of Record	Updated Data
Order Number		
Name		
Residence Information		
Residency		
City		
State		
Country of Residence		
Mailing Address of Inventor		
Address 1		
Address 2		
City,State/Province, Postal Code		
Country		

Document Description: Application Data Sheet to update/correct info
Doc Code: ADS.CORR

Application Information

	Data of Record	Updated Data
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	
Attorney Docket Number	USCO-053-02	
Entity Type	Regular Undiscounted	

Domestic Benefit/National Stage Information

****If no data is shown, no data has been corrected****

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121,365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S. C. 119(e) or 120, and 37 CFR 1.78(a).

		Data of Record	Updated Data
	Prior Application Status		
	Application Number		
	Continuity Type		
	Prior Application Number		
	Filing Date (YYYY-MM-DD)		
	Patent Number		
	Issue Date (YYYY-MM-DD)		

Foreign Priority Information

Document Description: Application Data Sheet to update/correct info
Doc Code: ADS.CORR

****If no data is shown, no data has been corrected****

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

		Data of Record	Updated Data
	Application Number		
	Country		
	Filing Date		
	Access Code		

Applicant Information

****If no data is shown, no data has been corrected****
Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

	Data of Record	Updated Data
Applicant Type		ASG
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is		
Name of the Deceased or Legally Incapacitated Inventor		
Applicant is an Organization		Yes
Name		
Organization Name		US Conec, Ltd.
Address 1		1138 25th Street Southeast
Address 2		

City,State/Province,Postal Code		Hickory NC 28602
Country		US
Phone Number		
Fax Number		
Email Address		

Assignee Information including Non-Applicant Assignee Information

****If no data is shown, no data has been corrected****
Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office

	Data of Record	Updated Data
Order		
Applicant is an Organization		
Name		
Organization Name		
Mailing Address		
Address 1		
Address 2		
City,State/Province,Postal Code		
Country		
Phone Number		
Fax Number		
Email Address		

Signature

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Michael L. Leetzow/	Registration Number	35932
First Name	Michael	Last Name	Leetzow

Electronic Acknowledgement Receipt

EFS ID:	31531994
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	18-JAN-2018
Filing Date:	27-DEC-2017
Time Stamp:	08:16:46
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet to update/ correct info	CorrectedADS.pdf	65265 d3f1620ff4ffc83f6b787c21039066acbc042903	no	5

Warnings:

Information:	
Total Files Size (in bytes):	65265

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 01/31/2018. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	15/855,788
Filing Date	2017-12-27
First Named Inventor	Hiep V. Nguyen
Title	Alignment Adapter and Alignment Design for a Connector Therefor
Art Unit	
Examiner Name	
Attorney Docket Number	USCO-053-02

SIGNATURE of Applicant or Patent Practitioner

Signature		Date (Optional)	2018-01-14
Name	Michael L. Leetzow	Registration Number	35932
Title (if Applicant is a juristic entity)	Patent Practitioner		
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/80 (07-12)
Approved for use through 11/30/2014. OMB 0651-0035
U.S. Patent and Trademark Office; U.S DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

■ Practitioners associated with Customer Number: 152017

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

■ The address associated with Customer Number: 152017

OR

☐

Firm or Individual Name			
Address			
City		State	Zip
Country			
Telephone		Email	

Assignee Name and Address: US Conec, Ltd.
1138 25th Street SE
Hickory, NC 28603

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	
Name	Joseph L. Graham	Telephone	828 267 6323
Title	President		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: US Conec, Ltd

Application No./Patent No.: 15/855,788 Filed/Issue Date: 12/27/2017

Titled: Alignment Adapter and Alignment Design for a Connector Therefor

US Conec, Ltd, a limited liability company

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 044494, Frame 0006, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

   1. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

   2. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature	January 14, 2018 Date
Michael L. Leetzow Printed or Typed Name	35932 Title or Registration Number

Electronic Acknowledgement Receipt

EFS ID:	31497657
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	14-JAN-2018
Filing Date:	27-DEC-2017
Time Stamp:	16:52:22
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		POAforFiling.pdf	845534 16cbcff22c021449470eca3ade4ce8b4fc91434f	yes	4

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Power of Attorney	1	2
	Assignee showing of ownership per 37 CFR 3.73	3	4
Warnings:			
Information:			
	Total Files Size (in bytes):	845534	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
15/855,788	12/27/2017		1600	USCO-053-02	14	3

CONFIRMATION NO. 9525

FILING RECEIPT

152017
Us Conec Ltd.
1138 25th Street Southeast
Hickory, NC 28602

OC000000098358019

Date Mailed: 01/11/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Hiep V. Nguyen, Fort Mill, SC;
Darrell R. Childers, Hickory, NC;
Michael E. Hughes, Hickory, NC;
Jillcha Fekadu Wakjira, Hickory, NC;
Joseph P. Howard, Hickory, NC;

Applicant(s)

Hiep V. Nguyen, Fort Mill, SC;
Darrell R. Childers, Hickory, NC;
Michael E. Hughes, Hickory, NC;
Jillcha Fekadu Wakjira, Hickory, NC;
Joseph P. Howard, Hickory, NC;

Assignment For Published Patent Application

US Conec, Ltd, Hickory, NC

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 14/214,931 03/15/2014 PAT 9857538
which claims benefit of 61/789,499 03/15/2013

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Senko Ex. 1014, Page 287
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 01/09/2018
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/855,788**
Projected Publication Date: 04/19/2018
Non-Publication Request: No
Early Publication Request: No
Title

Alignment Adapter and Alignment Design for a Connector Therefor

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative,

this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop

technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

Senko Ex. 1014, Page 290
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 15/855,788

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	280
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	600
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	720
TOTAL CLAIMS (37 CFR 1.16(i))	14 minus 20 =	*			OR	x 80 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*				x 420 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1600

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

DocCode – SCORE

SCORE Placeholder Sheet for IFW Content

Application Number: 15855788 Document Date: 12/27/2017

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

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- Drawing

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- External customers may access SCORE content via PAIR using the Supplemental Content tab.

Form Revision Date: August 26, 2013

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	USCO-053-02
First Named Inventor	Hiep Nguyen
Title	Alignment Adapter and Alignment Design for a Connector Therefor
Express Mail Label No.	EFS Web

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [✔] **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. [ ] **Applicant asserts small entity status.** See 37 CFR 1.27
3. [ ] **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. [✔] **Specification** [*Total Pages* 13] Both the claims and abstract must start on a new page. *(See MPEP § 608.01(a) for information on the preferred arrangement)*
5. [✔] **Drawing(s)** (35 U.S.C. 113) [*Total Sheets* 10]
6. **Inventor's Oath or Declaration** [*Total Pages* 5] *(including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))*
   a. [ ] Newly executed (original or copy)
   b. [✔] A copy from a prior application (37 CFR 1.63(d))
7. [✔] **Application Data Sheet** ** See note below.* See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   [ ] Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. [ ] Computer Readable Form (CRF)
   b. [ ] Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

ADDRESS TO:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ACCOMPANYING APPLICATION PAPERS

10. [ ] **Assignment Papers** (cover sheet & document(s))
    Name of Assignee _____
11. [ ] **37 CFR 3.73(c) Statement** (*when there is an assignee*) [ ] **Power of Attorney**
12. [ ] **English Translation Document** (*if applicable*)
13. [ ] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [ ] Copies of citations attached
14. [✔] **Preliminary Amendment**
15. [ ] **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. [ ] **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. [ ] **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. [ ] **Other:** _____

*__Note__: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

[✔] The address associated with Customer Number: 152017 **OR** [ ] Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature	/Michael L. Leetzow/	Date	2017-12-27
Name (Print/Type)	Michael L. Leetzow	Registration No. (Attorney/Agent)	35932

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Hiep	V.	Nguyen	

Residence Information (Select One) ● US Residency Non US Residency Active US Military Service

City	State/Province	Country of Residence
Fort Mill	SC	US

Mailing Address of Inventor:

Address 1	1102 Queen Anne's Cove
Address 2	
City	Fort Mill
State/Province	SC
Postal Code	29708
Country	US

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Darrell	R.	Childers	

Residence Information (Select One) ◉ US Residency Non US Residency Active US Military Service

City	State/Province	Country of Residence
Hickory	NC	US

Mailing Address of Inventor:

Address 1	611 5th Ave NE
Address 2	
City	Hickory
State/Province	NC
Postal Code	28601
Country	US

Inventor 3 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Michael	E.	Hughes	

Residence Information (Select One) ◉ US Residency Non US Residency Active US Military Service

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

City	Hickory	State/Province	NC	Country of Residence	US

Mailing Address of Inventor:

Address 1	350 16th Ave Ln. NW		
Address 2			
City	Hickory	State/Province	NC
Postal Code	28601	Country	US

Inventor 4 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Jillcha	Fekadu	Wakjira	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Hickory	State/Province	NC	Country of Residence	US

Mailing Address of Inventor:

Address 1	2032 19th Ave. Cir. NE		
Address 2			
City	Hickory	State/Province	NC
Postal Code	28601	Country	US

Inventor 5 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Joseph	P.	Howard	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Hickory	State/Province	NC	Country of Residence	US

Mailing Address of Inventor:

Address 1	1363 Homestead Dr.		
Address 2			
City	Hickory	State/Province	NC
Postal Code	28602	Country	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Senko Ex. 1014, Page 296
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

Customer Number	152017		
Email Address	michael@leetzow.com	Add Email	Remove Email
Email Address	ssengupta@usconec.com	Add Email	Remove Email

Application Information:

Title of the Invention	Alignment Adapter and Alignment Design for a Connector Therefor		
Attorney Docket Number	USCO-053-02	**Small Entity Status Claimed**	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	10	**Suggested Figure for Publication (if any)**	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	● Customer Number	US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	152017		

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	14214931	2014-03-15
Prior Application Status	Expired		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
14214931	Claims benefit of provisional	61789499	2013-03-15

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove

Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.	Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Applicant:

Address 1			
Address 2			
City		**State/Province**	
Country		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

PTO/AIA/14 (11-15)
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee or Non-Applicant Assignee is an Organization check here. ☒

Organization Name	US Conec, Ltd

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1	1138 25th Street SE		
Address 2			
City	Hickory	**State/Province**	NC
Country i	US	Postal Code	28603
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Michael L. Leetzow/			Date (YYYY-MM-DD)	2017-12-27
First Name	Michael	Last Name	Leetzow	Registration Number	

Additional Signature may be generated within this form by selecting the Add button. Add

PTO/AIA/14 (11-15)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	USCO-053-02
	Application Number	
Title of Invention	Alignment Adapter and Alignment Design for a Connector Therefor	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

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The information provided by you in this form will be subject to the following routine uses:

1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

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Application Number:	
Filing Date:	
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Filer:	MICHAEL LEETZOW
Attorney Docket Number:	USCO-053-02

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	280	280
UTILITY SEARCH FEE	1111	1	600	600
UTILITY EXAMINATION FEE	1311	1	720	720
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**1600**

Electronic Acknowledgement Receipt

EFS ID:	31347630
Application Number:	15855788
International Application Number:	
Confirmation Number:	9525
Title of Invention:	Alignment Adapter and Alignment Design for a Connector Therefor
First Named Inventor/Applicant Name:	Hiep V. Nguyen
Customer Number:	152017
Filer:	MICHAEL LEETZOW
Filer Authorized By:	
Attorney Docket Number:	USCO-053-02
Receipt Date:	27-DEC-2017
Filing Date:	
Time Stamp:	18:05:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
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	Multipart Description/PDF files in .zip description				
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	Specification		1	9	
	Claims		10	12	
	Abstract		13	13	
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5	Transmittal of New Application	aia001505302.pdf	276125 d26c0b94be56bf8ac2eb017a506d159d56854e7e	no	2
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6	Application Data Sheet	USCO-053-02_USPTO_AIA14_20171227_104941.pdf	1874501 38f954e33deb769c9c73ba6882479e0d245228de	no	9
Warnings:					
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7	Fee Worksheet (SB06)	fee-info.pdf	35170 b881b6437777b23ba7ec919f2106ef3bd0545f52	no	2
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ALIGNMENT ADAPTER AND ALIGNMENT DESIGN FOR A CONNECTOR THEREFOR

BACKGROUND OF THE INVENTION

REFERENCE TO RELATED CASE

[0001] This application claims priority under 35 U.S.C. § 119 (e) to provisional application no. 61/789,499 filed on March 15, 2013, the contents of which is hereby incorporated by reference in its entirety.

FIELD OF THE INVENTION

1.There is a need for fiber optic connectors with fiber optic ferrules that are ganged together with a tight pitch between those fiber optic ferrules. Such a design allows for many fiber optic ferrules to be connected simultaneously while occupying less space. In addition, it allows the fiber optic ferrules to be organized in a prearranged routing of the optical fibers so that the complexity of fiber optic connector routing is reduced for the user. Typically, these ganged fiber optic ferrules are mounted into a single housing and the housings are then mated to one another. The alignment between a pair of ferrules to be mated is complex and requires tight tolerances because there is a tolerance stack-up that includes the true position of the fiber optic ferrule relative to the housing. By requiring a tight tolerance of the housing relative to the fiber optic ferrule, the designs are expensive to design, maintain, and to scale to various fiber optic ferrule counts. It is also difficult to scale to very large arrays of fiber optic ferrules within one housing due to the true position tolerance required for every fiber optic ferrule to the housings and also the larger distances from the fiber optic ferrules to the housings.

2.An alternative way to align the ferrules to each other is to align the ferrule holders to one another through features in the adapter. Rather than using the sides of the ferrule holder to align the ferrule holder to the adapter, top and bottom keys on the ferrule holder align the ferrule holder relative to the adapter in the x-direction. The orientation of the ferrule holder is controlled by the width difference between the top and the bottom key. The height of the ferrule holder aligns the ferrule holder in the y direction. A plug is used to assemble a

plurality of the ferrule holders together. The ferrule holders protrude through the plug so the ferrule holder features can be aligned in the adapter after the plug engages the adapter and aligns the ferrule holders with their own structures. The alignment in the X and Y directions between the ferrule holder and the adapter are maintained within 100 microns, preferably within 50 microns. The ferrule holders are relatively loosely held within the plug so as to not over constrain the ferrule holders in the adapter (greater than 100 microns). The grooves within the adapter that aligns the ferrule holders is one continuous feature for both sides of the adapter and the mating ferrule holders. By making the groove one continuous feature for both sides, the alignment the mating ferrule holders is guaranteed. The size of the groove is critical but the true position of the alignment feature relative to the adapter-to-plug alignment feature is not critical. By using this alignment mechanism, large arrays of ferrule holders can be manufactured. Only the size of the alignment mechanism in the ferrule holder and the size of the alignment mechanism in the adapter must be maintained. The true position tolerances are significantly reduced.

3.Thus, an adapter and adapter assembly with novel alignment features is provided to engage with alignment features on a plug, which is turn assists in aligning the ferrule holders with alignment grooves in the adapter.

SUMMARY OF THE INVENTION

4. The present invention is directed to an adapter for aligning fiber optic ferrules inserted from opposing sides that includes a main body having an opening extending between a first side and a second side, the first side and the second side separated by a central portion, at least one groove in a top surface and a bottom surface of the first side and the second side, and a plurality of grooves disposed in a top surface and the bottom surface of the central portion, each of the plurality of grooves extending through the central portion from the first side to the second side.

5. According to another aspect of the present invention, adapter assembly for aligning one plurality of optical ferrules to another plurality of optical ferrules includes an adapter having an opening extending between a first side and a second side, the adapter having a plurality of

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grooves in the opening and extending in a direction from the first side to the second side, a plurality of ferrule holders, each of the plurality of ferrule holders having a central opening extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, each of the plurality of ferrule holders having an opening in first end and in communication with the central opening, the second end opposite the first end and through which optical fibers extend, each of the plurality of ferrule holders having a projection on opposite outside surfaces to engage a corresponding groove in the adapter, and a plug having an outside surface and an inside surface, the inside surface defining an opening through the plug to hold a plurality of ferrule holders therein adjacent one another, the plug having grooves in the inside surface to engage the projections from the plurality of ferrule holders to align and orient the ferrule holders in the plug.

6.In yet another aspect, a ferrule holder includes a main body having a central opening to resiliently retain a fiber optic ferrule therein, a central opening in the main body and extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, the first end having an opening therein and in communication with the central opening, the second end opposite the first end and through which optical fibers extend, and a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter.

7.The present invention is also directed to a fiber optic connector that includes a plurality of ferrule holders, each of the plurality of ferrule holders having a central opening extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, the ferrule holder having an opening in first end in communication with the central opening, the second end opposite the first end and through which optical fibers extend, each of the plurality of ferrule holders having a projection on opposite outside surfaces to engage a corresponding groove in the adapter, and a plug having an outside surface and an inside surface, the inside surface defining an opening through the plug to hold a plurality of ferrule holders therein adjacent one another, the plug having grooves in the inside surface to engage the projections from the plurality of ferrule holders to align and orient the ferrule holders in the plug

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8.Additional features and advantages of the invention will be set forth in the detailed description which follows, and in part will be readily apparent to those skilled in the art from that description or recognized by practicing the invention as described herein, including the detailed description which follows, the claims, as well as the appended drawings.

9. It is to be understood that both the foregoing general description and the following detailed description of the present embodiments of the invention, and are intended to provide an overview or framework for understanding the nature and character of the invention as it is claimed. The accompanying drawings are included to provide a further understanding of the invention, and are incorporated into and constitute a part of this specification. The drawings illustrate various embodiments of the invention and, together with the description, serve to explain the principles and operations of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

10. Fig. 1 is a perspective view of one embodiment of an adapter assembly according to the present invention;

11. Fig. 2 is an exploded view of the adapter assembly of Fig. 1;

12. Fig. 3 is a perspective view of a cut-away view of the adapter of Fig. 1;

13. Fig. 4 is a front elevational view of the adapter of Fig 1.;

14. Fig. 5A is a top perspective view of one embodiment of a ferrule holder and ferrule that can be used in the adapter assembly of Fig. 1;

15. Fig. 5B is a bottom perspective view of the ferrule holder and ferrule of Fig. 5a;

16. Fig. 5C is a front view of the ferrule holder and ferrule of Fig. 5a;

17. Fig. 6A is a top perspective view of a plug and ferrule holders according to the present invention;

18.Fig. 6B is a bottom perspective view of the plug and ferrule holders of Fig. 6A;

19.Fig. 6C is a front elevational view of the plug and ferrule holders of Fig. 6A;

20.Fig. 7A is a partial cross sectional view of a portion of a ferrule holder of Fig. 5;

21.Fig. 7B is a partial cross sectional view of a portion of the center portion of the adapter;

22.Fig. 8 is a cross sectional view of the adapter assembly in the center of the adapter assembly; and

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23.Fig. 9 is a cross sectional view of the adapter assembly through a ferrule holder and ferrule.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

24. Reference will now be made in detail to the present preferred embodiment(s) of the invention, examples of which are illustrated in the accompanying drawings. Whenever possible, the same reference numerals will be used throughout the drawings to refer to the same or like parts.

25. Referring to Figs. 1 and 2, one embodiment of an adapter assembly **10** is illustrated. The adapter assembly **10** includes an adapter **100**, a plug **200** and a ferrule holder **300**. The adapter assembly **10** is used to align ferrules **12** to other ferrules in a tightly controlled manner and in a tighter space than has been possible before. The ferrules **12** are typically multi-fiber ferrules, particularly MT type ferrules, but the present invention may include other types of ferrules. The ferrules **12** are disposed within the ferrule holder **300** and have optical fibers **14** secured therein, which may be loose optical fibers, ribbonized optical fibers, or optical fibers in any other configuration. The ferrules **12** are resiliently held in the ferrule holders **300** using a spring push **16** that engages a spring **18**. The spring **18** then presses on a pin keeper **20**, as is known in the art, to bias the ferrules **12** forward in the ferrule holder **300**. As is described in more detail below, the ferrules **12** are held somewhat loosely within the ferrule holder **300** so that they can move relative to the ferrule holder **300** to align with other ferrules **12** that are inserted in the adapter **100** from the other side. Similarly, the ferrule holders **300** are inserted into the plug **200** and they are also loosely held in the plug **200**. That is, there is typically more than **100** microns of movement in the x and y directions (See Fig. 4.) available to the ferrule holder **300** in the plug **200**, as explained in more detail below.

26.As illustrated in Figs. 5A-C, the ferrule holder **300** has a main body **302** with a central opening **304** that extends from a first end **306** to a second end **308** to house the fiber optic ferrules **12**. The first end **306** has an opening **310** therein to allow access to the ferrule **12**. The ferrule **12** may or may not exit the main body **302**. That is, the ferrule **12** may extend beyond the main body **302** as shown in the figures or it may be flush with the first end **306**.

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second end 308 allows for the optical fibers **14** (shown in Fig. 5A and 5B to have a boot and a covering) to exit the ferrule holder **300**. The ferrule holder **300** has a top surface **312** and a bottom surface **314**, with a cantilevered latch **316** to engage the plug **200**. The top surface **312** has a projection **320** and the bottom surface **314** has a projection **322**. The projections **320,322** are preferably elongated and have a chamfered front end. The projections **320,322** are used to engage grooves in the plug **200** and the adapter **100** to position the ferrule holders **300** with precision in the adapter **100**. The projection **320** has a width that is different that the width of projection **322** so as to act as a key in inserting the ferrule holder **300** in the plug 200. While the projection **320** is wider than projection **322**, it could be opposite in that projection **320** is more narrow than projection **322**. The projections **320,322** are preferably on the top and the bottom surfaces **312,314** of the ferrule holder **300** to allow, as illustrated below, more ferrule holders to be inserted into the adapter **100** and the plug **200**. The projections **320,322** are used to position the ferrules **12** in the adapter in the x and y directions, eliminating the need for side walls to position the ferrule holders **300** and the ferrules **12**.

27.The plug **200** will now be described relative to Figs. 6A-6C. The plug **200** has an outside surface **202** and an inside surface **204**. The inside surface **204** defines an opening **206** therethrough to allow the ferrule holders **300** to be inserted therein. The inside surface **204** has a plurality of grooves **208** on a top side **210** and a corresponding plurality of grooves **212** on the bottom side **214**. The grooves **208** and **212** are dimensioned to accept the projections **320,322** from the ferrule holders **300**. It should be noted that the ferrule holders **300** are adjacent to one another, that is side-by-side without any material from the plug **200** therebetween. Applicant means that by using the term adjacent herein, there is no structure that comes between the neighboring ferrule holders **300**.

28.The outside surface **202** also has a projection **220** on the top of the plug **200**, seen in Fig. 6A, and also a projection **222** on the bottom of the plug **200**, seen in Fig. 6B. Again, as with the projections **320,322**, projection **220** has a width that is different that the width of projection **222** so as to act as a key in inserting the plug **200** into the adapter **100**. While the

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projection **220** is narrower than projection **222**, it could be opposite in that projection **220** is wider than projection **222**.

29.The plug **200** also has two cantilevered latches **230** on the sides to engage corresponding structure on the adapter **100**. There are also latch receptacles **232** on the top side of the plug **200** to engage the latches **316** of the ferrule holders **300**.

30.As noted above, the grooves **208** and **212** in plug **200** are dimensioned to accept the projections **320,322** from the ferrule holders **300**. There is sufficient movement in the ferrule holders **300** relative to the plug **200** that when the plug **200** and ferrule holders **300** as assembled is inserted into the adapter **100**, that the ferrule holders **300** can move to allow the projections **320,322** from the ferrule holders **300** to engage corresponding grooves in the adapter **100** as described below in more detail.

31.Returning to Figs. 3 and 4, the adapter **100** is illustrated in more detail. The adapter **100** has a main body **102** with an opening **104** extending between a first side **106** and a second side **108**. The first side **106** and a second side **108** are separated by a central portion **110**. The first side **106** has a top surface **112** and a bottom surface **114**. The top surface **112** has a groove **116** and the bottom surface **114** has a groove **118**. The grooves **116,118** correspond to the projections **220,222** from the plug **200**. The location of the wider groove in the adapter **100** will correspond with the wider projection on the plug **200**.

32.The adapter has the center portion **110**. Center portion **110** preferably has a wall **130** that extends across the opening **104** in the adapter **100** and divides the center portion **110** in half. The center portion **110** also has a raised bottom portion **132** and a dropped top portion **134** that narrows the opening **104** in the center portion **110**. The wall **130** preferably extends from the raised bottom portion **132** and a dropped top portion **134** or it may be excluded completely if there is no EMI concerns with the adapter **100**. The wall **130** has a plurality of openings **136** that are sized to allow the ferrules **12** to pass therethrough to engage a corresponding ferrule **12**. As noted above, if the ferrules **12** only extend to the end of the ferrule holder **330**, then the openings **136** should be sized to allow the ferrule holders to also extend therethrough. The adapter **100** may also have an elastomeric gasket **150** that encircles an external surface of the adapter **100** to provide EMI shielding.

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33.The raised bottom portion **132** and a dropped top portion **134** also have a plurality of grooves **140**, **142**, respectively, that extend completely across the central portion **110**. The grooves **140**, **142** are like those in the plug **200**, in that they are to engage the projections **320,322** from the ferrule holders **300**. The grooves **140**,**142** preferably extend completely across the center portion **110** as they are formed with the same insert in the mold. Therefore, the grooves **140**,**142** are sure to align the ferrule holders **300** on each side of the adapter **100** as they are inserted into the adapter **100**.

34.As the plug **200** with the ferrule holders **300** positioned therein are inserted into the adapter **100**, the projections **220,222** from the plug **200** engage the grooves **116,118** on the top surface **112** and the bottom surface **114** to roughly align the ferrule holders **300** with the center portion **110** and the plurality of grooves **140** in particular. Then, as the plug **200** is inserted farther into the adapter **100**, the projections **320,322** from the ferrule holders **300** engage plurality of grooves **140**, **142** to align the ferrule holders **300** with the adapter and the openings **136** in the wall **130**. When a plug **200** is inserted on the second side, the ferrules in the ferrule holders on the other side will be in alignment with the first side.

35.The position of the ferrule holders **300** on the first side **106** of the adapter relative to the ferrule holders **300** on the second side **108** is what allows the optical ferrules to be aligned with one another. There is no need, as discussed above, to worry about the stacking of tolerances as in the prior art. The positioning of the projections **320,322** on the ferrule holders **300** relative to the plurality of grooves **140**, **142** is important. With reference to Figs. 7A and 7B, the projections **320,322** are used to control the x and y locations of the ferrule holders **300**. The surfaces **350** of the projections **320,322** (Fig. 7A) align with the surfaces **150** in the adapter (Fig. 7B) to control the x direction of the ferrule holder **300** relative to the adapter **100**. The surfaces **352** of the ferrule holder **300** align with the surfaces **352** of the raised bottom portion **132** and the dropped top portion **134** of the center portion **110** to control the y direction of the ferrule holder **300** relative to the adapter **100**. The surfaces of the projections **320,322** could also align in the y direction, given that they are parallel to the surfaces **352**.

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36.A cross section of the adapter assembly **10** is illustrated in Fig. 8 through the center of the adapter assembly. This illustrates the projections **220,200** in the openings **116,118** of the adapter **100**. Fig. 9 is a cross sectional view of the adapter assembly 10 through a ferrule holder and ferrule illustrating the engagement of the projections **320,322** in the openings **140**, **142**.

37.It will be apparent to those skilled in the art that various modifications and variations can be made to the present invention without departing from the spirit and scope of the invention. Thus it is intended that the present invention cover the modifications and variations of this invention provided they come within the scope of the appended claims and their equivalents.

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We claim:

1. An adapter for aligning fiber optic ferrules inserted from opposing sides comprising:

a main body having an opening extending between a first side and a second side, the first side and the second side separated by a central portion;

at least one groove in a top surface and a bottom surface of the first side and the second side; and

a plurality of grooves disposed in a top surface and the bottom surface of the central portion, each of the plurality of grooves extending through the central portion from the first side to the second side.

2. The adapter according to claim 1, further comprising a wall disposed within and across the central portion of the main body and between the first side and the second side, the wall having at least one passage therein to allow at least a portion of the fiber optic ferrules inserted from the first and second sides to pass therethrough.

3. The adapter according to claim 1, wherein the at least one passage comprises a plurality of passages, the plurality of passages corresponding to the number of fiber optic ferrules and providing EMI shielding.

4. The adapter according to claim 1, wherein the opening in the central portion of the main body is smaller than the opening in the first and second sides.

5. The adapter according to claim 1, further comprising an conductive elastomeric gasket encircling an external surface of the adapter to provide EMI shielding to the adapter.

6. The adapter according to claim 1, wherein the first and second sides are configured to receive a plurality of optical ferrules.

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7. The adapter according to claim 1, wherein the plurality of grooves in the top surface of the central portion have a first width and the plurality of grooves in the bottom surface of the central portion have a second width, and the first and second widths are different.

8. An adapter assembly for aligning one plurality of optical ferrules to another plurality of optical ferrules comprising:

an adapter having an opening extending between a first side and a second side, the adapter having a plurality of grooves in the opening and extending in a direction from the first side to the second side;

a plurality of ferrule holders, each of the plurality of ferrule holders having a central opening extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, each of the plurality of ferrule holders having an opening in first end and in communication with the central opening, the second end opposite the first end and through which optical fibers extend, each of the plurality of ferrule holders having a projection on opposite outside surfaces to engage a corresponding groove in the adapter; and

a plug having an outside surface and an inside surface, the inside surface defining an opening through the plug to hold a plurality of ferrule holders therein adjacent one another, the plug having grooves in the inside surface to engage the projections from the plurality of ferrule holders to align and orient the ferrule holders in the plug.

9. The adapter assembly according to claim 8, wherein the outside of the plug has at least one projection to engage a groove in the opening in the adapter to align the plug in the opening in the adapter.

10. The adapter assembly according to claim 9, wherein the projection on the outside of the plug engages the groove in the adapter before the projections on the plurality of ferrule holders engage the plurality of grooves in the adapter.

11. The adapter assembly according to claim 8, wherein the grooves act as a keyway.

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12. A ferrule holder comprising:

a main body having a central opening to resiliently retain a fiber optic ferrule therein;

a central opening in the main body and extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, the first end having an opening therein and in communication with the central opening, the second end opposite the first end and through which optical fibers extend; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter.

13. The ferrule holder according to claim 12, where the projected also engage a groove in a plug.

14. A fiber optic connector comprising:

a plurality of ferrule holders, each of the plurality of ferrule holders having a central opening extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, the ferrule holder having an opening in first end in communication with the central opening, the second end opposite the first end and through which optical fibers extend, each of the plurality of ferrule holders having a projection on opposite outside surfaces to engage a corresponding groove in the adapter; and

a plug having an outside surface and an inside surface, the inside surface defining an opening through the plug to hold a plurality of ferrule holders therein adjacent one another, the plug having grooves in the inside surface to engage the projections from the plurality of ferrule holders to align and orient the ferrule holders in the plug.

Senko Ex. 1014, Page 320
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

ALIGNMENT ADAPTER AND ALIGNMENT DESIGN FOR A CONNECTOR THEREFOR

ABSTRACT OF THE DISCLOSURE

An adapter with novel alignment features engages alignment features on a plug, providing general alignment of the ferrule holders and ferrules in the plug. After the plug engages the adapter, the ferrule holders engage a second set of alignment features in the adapter to provide fine alignment for the ferrules.

Senko Ex. 1014, Page 321
Senko Advanced Components v. US Conec Ltd.
IPR2024-00805

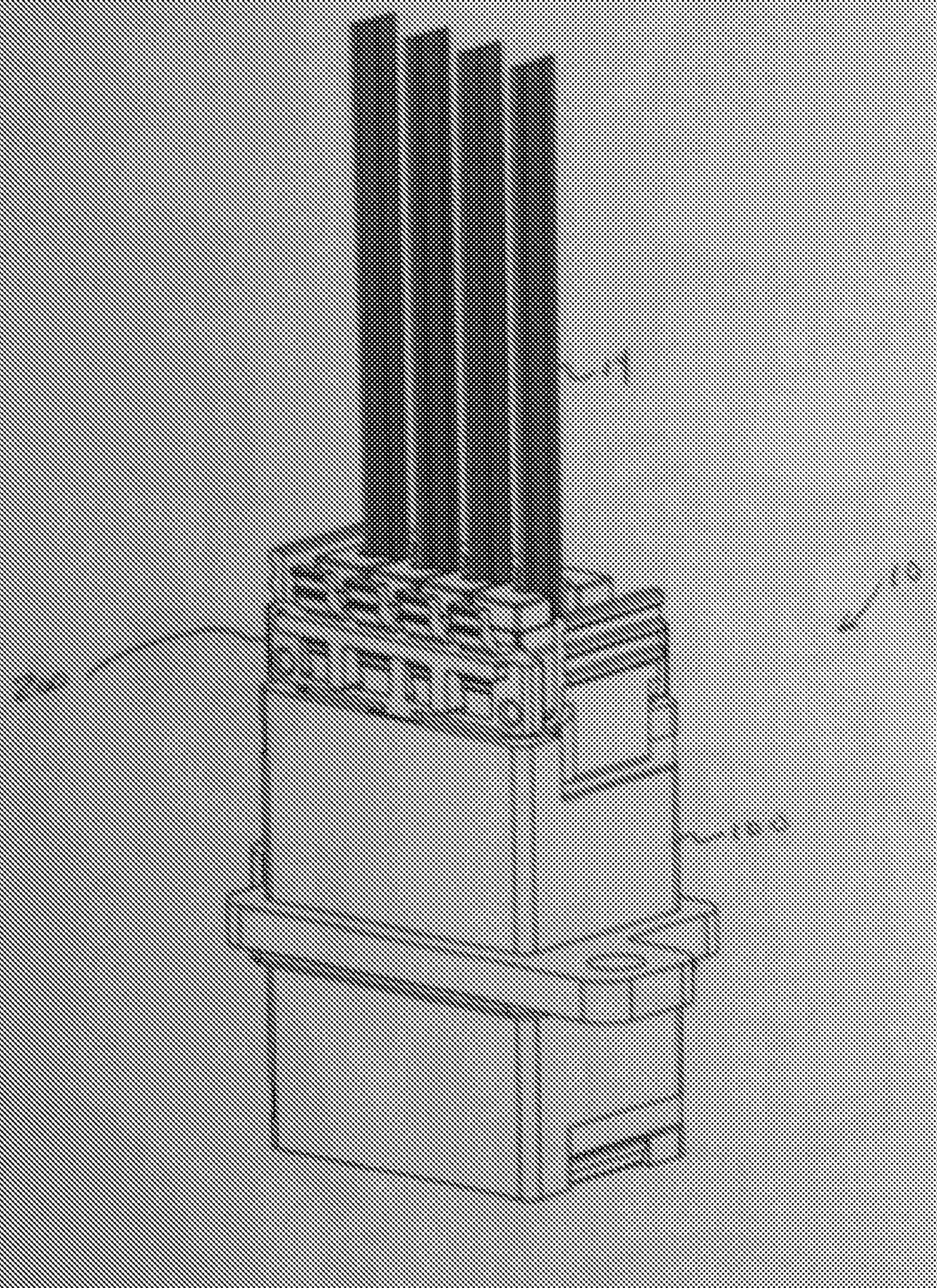


Fig. 1

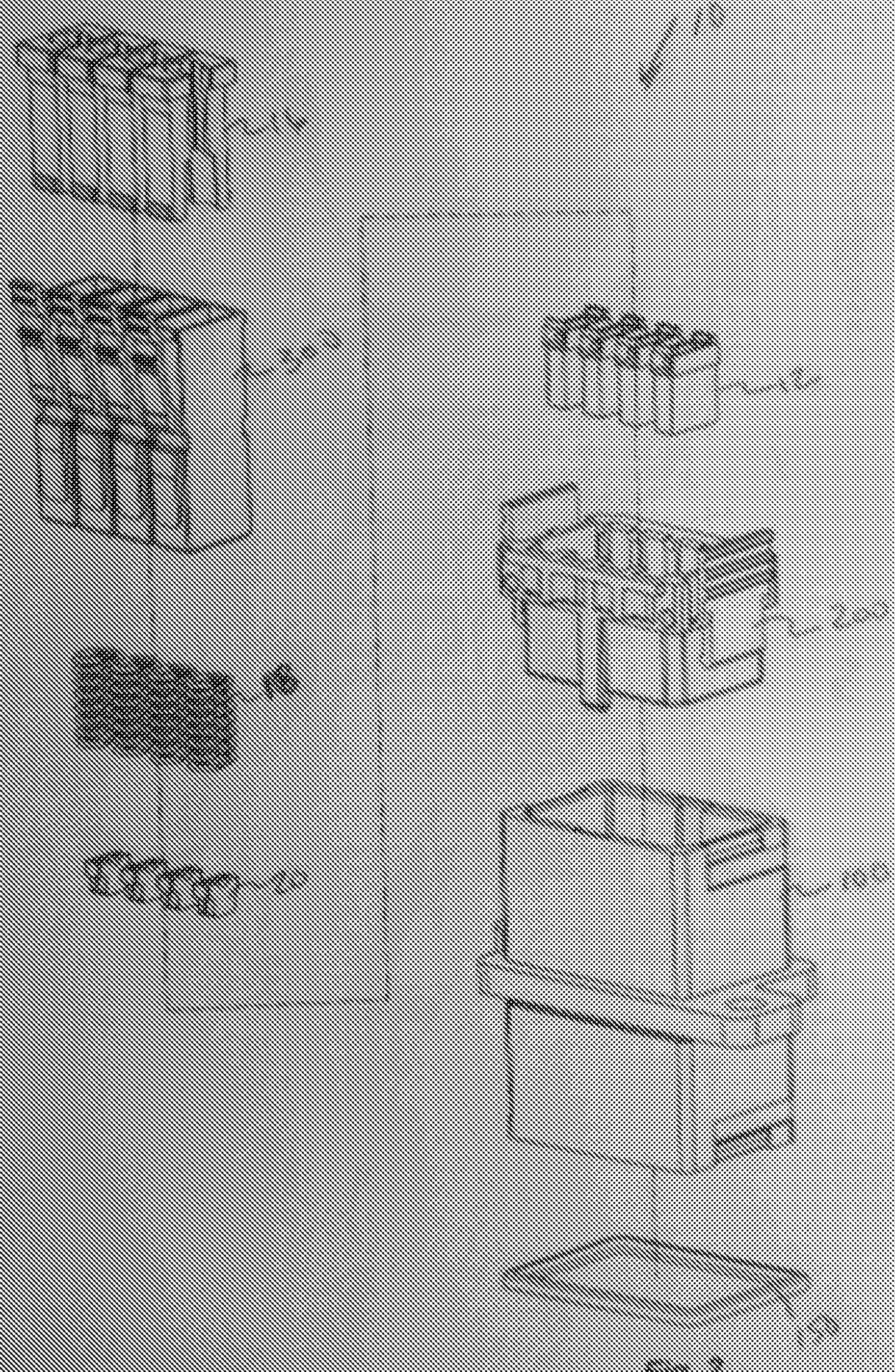


Fig. 2

Fig. 6b

Fig 5A
Fig 5B
Fig 5C

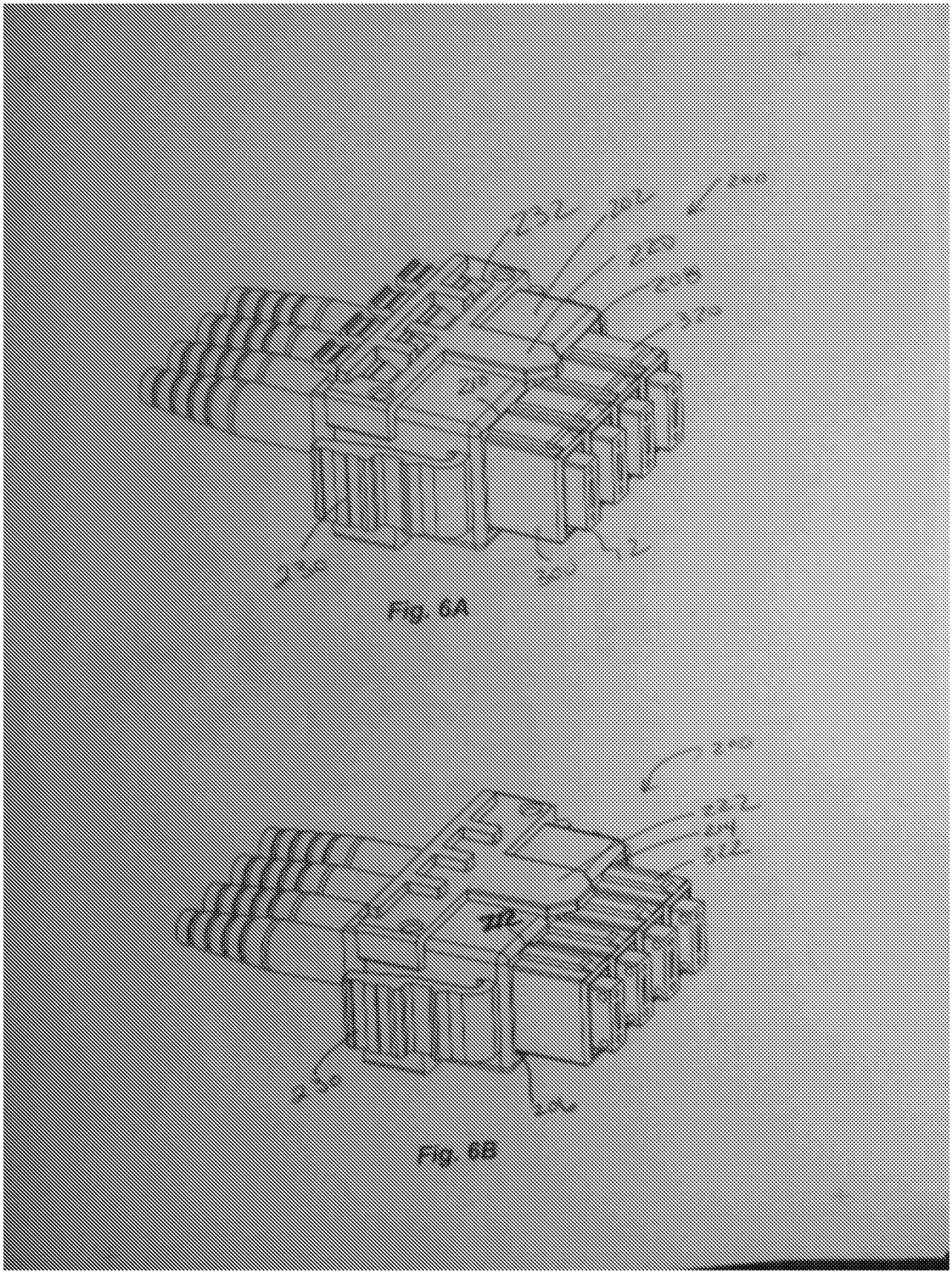


Fig. 6A

Fig. 6B

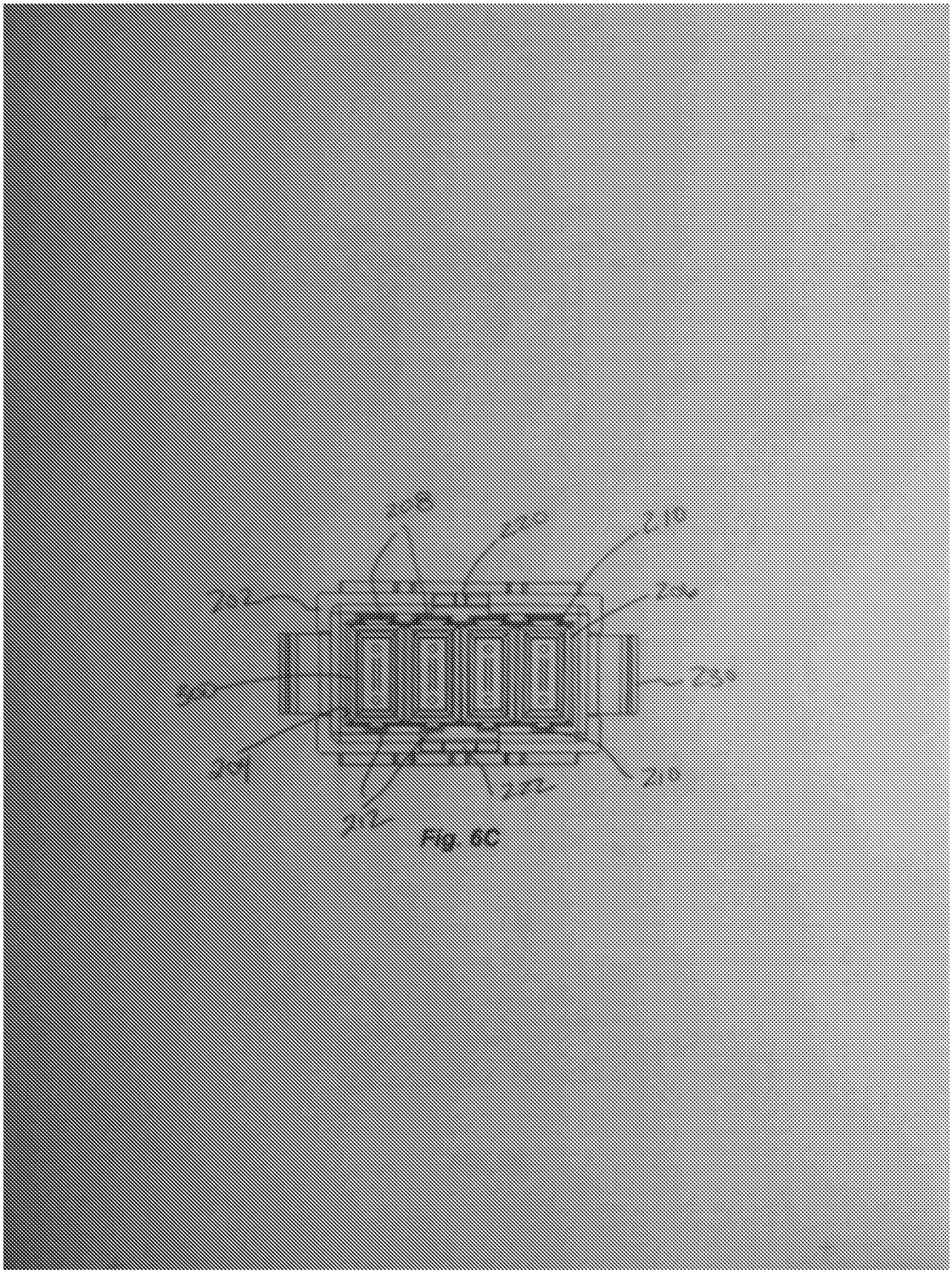


Fig. 6C

Fig. 7A

Fig. 7B

Fig. 6

Fig. 9

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor:	Hiep Nguyen	)	
		)	Group Art Unit: 2883
Serial No.:	Cont. of 14/214,931	)	
		)	Examiner: Unassigned
Filing Date:	December 27, 2017	)	
		)	
Title:	Alignment Adapter and Alignment Design for a Connector Therefor	)	

Commissioner for Patents
PO Box 1450
Arlington VA 22313-1450

PRELIMINARY AMENDMENT

Prior to the Examination of the present application and calculation of fees, Applicant amends the application as follows:

IN THE SPECIFICATION:

Please replace the first paragraph with the following revised paragraph:

This application claims priority under 35 U.S.C. § 119 (e) to provisional application no. 61/789,499 filed on March 15, 2013, and also claims priority to U.S. Patent Application No. 14/214,931 filed on March 15, 2014, under 35 U.S.C. § 120, the contents of ~~which is~~ which are hereby incorporated by reference ~~in its~~ in their entirety.

IN THE DRAWINGS:

Please replace all of the prior drawings with the replacement drawings attached hereto. Applicant has replaced the drawings with better wire-form drawings with the reference numerals correctly applied. No new matter has been added.

IN THE CLAIMS:

Claims 1-7. Canceled.

8. (Currently Amended) An adapter assembly for aligning one plurality of optical ferrules to another plurality of optical ferrules comprising:

an adapter having an opening extending between a first side and a second side, the adapter having a plurality of grooves in the opening ~~and extending in a direction from the first side to the second side~~;

a plurality of ferrule holders, each of the plurality of ferrule holders having a central opening extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, each of the plurality of ferrule holders having an opening in first end and in communication with the central opening, the second end opposite the first end and through which optical fibers extend, each of the plurality of ferrule holders having ~~a projection~~ at least two surfaces on opposite ~~outside surfaces~~ sides to engage a corresponding groove in the adapter; and

a plug having an outside surface and an inside surface, the inside surface defining an opening through the plug to ~~hold a~~ hold the plurality of ferrule holders therein adjacent one another, the plug having grooves in the inside surface to engage the ~~projections~~ from the plurality of ferrule holders to align and orient the ferrule holders in the plug.

9. (Original) The adapter assembly according to claim 8, wherein the outside of the plug has at least one projection to engage a groove in the opening in the adapter to align the plug in the opening in the adapter.

10. (Original) The adapter assembly according to claim 9, wherein the projection on the outside of the plug engages the groove in the adapter before the projections on the plurality of ferrule holders engage the plurality of grooves in the adapter.

11. (Original) The adapter assembly according to claim 8, wherein the grooves act as a keyway.

12. (Currently Amended) A ferrule holder comprising:

a main body ~~having a central opening to resiliently retain a fiber optic ferrule therein~~;

a central opening in the main body and extending from a first end to a second end to ~~resiliently~~ retain a fiber optic ferrule therein, the first end having an opening therein ~~and~~ in communication with the central opening, the second end disposed opposite the first end and ~~through which~~ configured to receive optical fibers therethrough ~~extend~~; and

a projection on opposite outside surfaces of the main body to engage a corresponding groove in an adapter, the projection on opposite outside surfaces extend from the first end rearwardly toward the second end.

13. (Currently Amended) The ferrule holder according to claim 12, where the ~~projected~~ projections ~~also engage~~ engage a groove in a plug.

14. (Currently Amended) A fiber optic connector comprising:

a plurality of ferrule holders, each of the plurality of ferrule holders having a central opening extending from a first end to a second end to resiliently retain a fiber optic ferrule therein, the ferrule holder having an opening in first end in communication with the central opening, the second end opposite the first end and through which optical fibers extend, each of the plurality of ferrule holders having a projection on opposite outside surfaces to engage a corresponding groove in the adapter; and

a plug having an outside surface and an inside surface, the inside surface defining an opening through the plug to ~~hold a~~ hold the plurality of ferrule holders therein adjacent one another, the plug having grooves in the inside surface to engage the projections from the plurality of ferrule holders to align and orient the ferrule holders in the plug.

15. (New) The ferrule holder according to claim 12, further comprising a cantilevered latch attached to an outside surface of the main body between the second end and one of the projections and extending from a center portion of the main body towards the second end.

16. (New) The ferrule holder according to claim 12, wherein the main body has a top surface, a bottom surface and two side surfaces, the top and bottom surfaces having at least one dimension that is smaller than the two side surfaces.

17. (New) The ferrule holder according to claim 16, further comprising a cantilevered latch attached to an outside surface of the main body and wherein the cantilevered latch and the projections are attached to one of the top surface and the bottom surface.

18. (New) The adapter assembly according to claim 8, wherein the opening has a central portion between the first side and the second side, the opening in the central portion being smaller than the opening in the first side and the second side, the plurality of grooves including a first groove in a top surface and a second groove in a bottom surface of both the first and second sides and a first plurality of grooves in a top surface and a second plurality of grooves in a bottom surface of the central portion.

19. (New) The adapter assembly according to claim 18, wherein the first groove is configured to engage a first projection on the plug and the second groove is configured to engage a second projection on the plug.

20. (New) The adapter assembly according to claim 18, wherein the first and second plurality of grooves extend across the central portion.

21. (New) The adapter assembly according to claim 18, wherein the first groove in the top surface and the second groove in the bottom surface extend completely through the opening.

REMARKS

The present application has been filed to pursue additional subject in the parent application. Applicant has also submitted all new drawings as were filed in the parent case. No new matter was added to the replacement drawings.

The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

Respectfully submitted,

/Michael L. Leetzow/
Michael L. Leetzow
Registration No. 35,932
Michael L. Leetzow, P.A.
2393 Crest Ridge Ct
Sanford, FL 32771
Telephone: 407/302-9970

Date: December 27, 2017

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	**ALIGNMENT ADAPTER AND ALIGNMENT DESIGN FOR A CONNECTOR THEREFOR**

As the below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application, or

x United States application or PCT international application number 14/214,931

filed on March 15, 2014.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understood the contents of the application, and

I am aware of the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING: Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Jitka Wakira Date (Optional): 7/28/2014

Signature: Jitka Z. Wakira

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/AIA/01form for each additional inventor.

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LEGAL NAME OF INVENTOR

Inventor: Darrell R. Childers Date (Optional): 7/28/2014

Signature: Darrell R. Childers

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/AIA/01form for each additional inventor.

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LEGAL NAME OF INVENTOR

Inventor: JOSEPH HOWARD Date (Optional): 7/25/2014

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/AIA/01form for each additional inventor.

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LEGAL NAME OF INVENTOR

Inventor: HIEP V. NGUYEN Date (Optional): 7/28/14

Signature: Hiep V. Nguyen

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/AIA/01form for each additional inventor.

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LEGAL NAME OF INVENTOR

Inventor: Michael E Hughes Date (Optional): 8-26-2014

Signature: Michael E. Hughes

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/AIA/01form for each additional inventor.

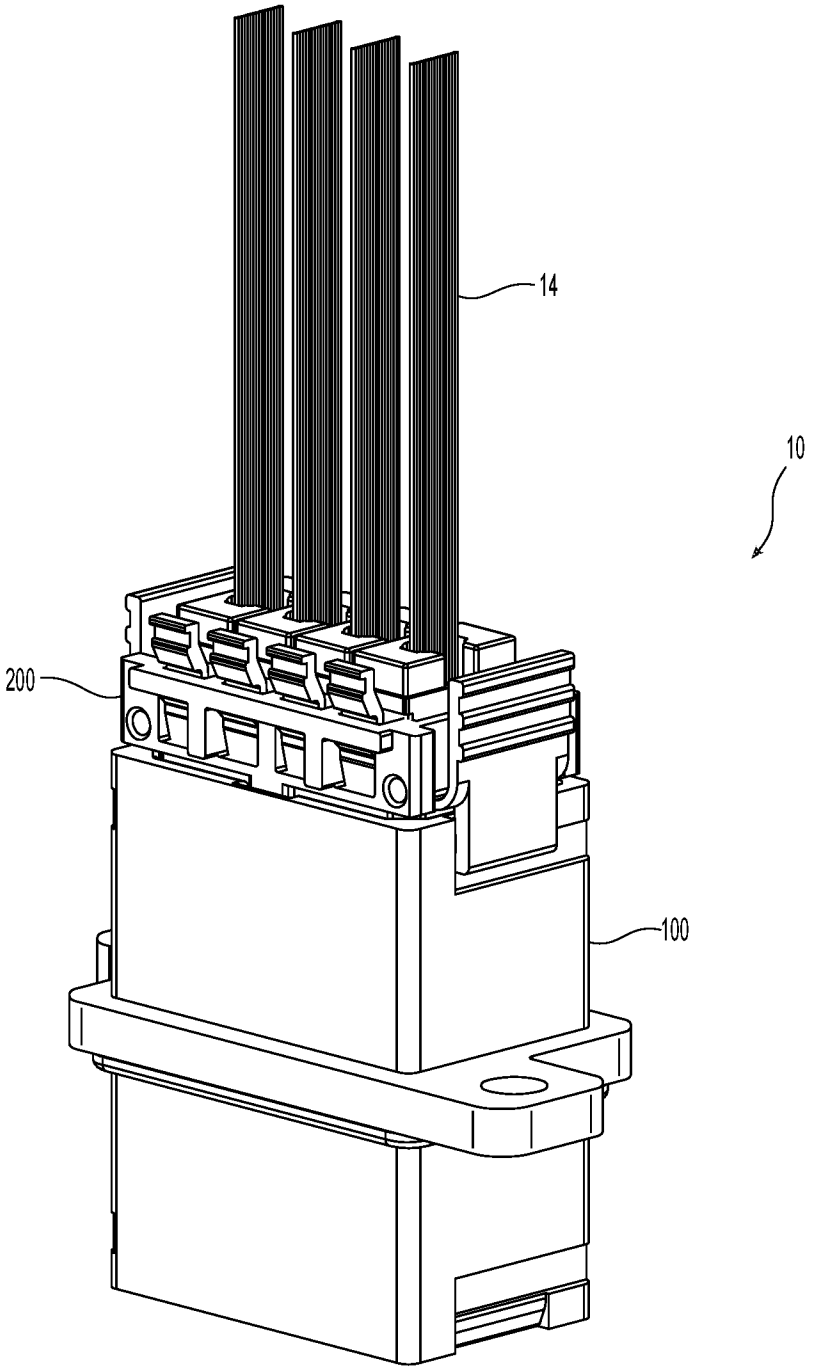


Fig. 1

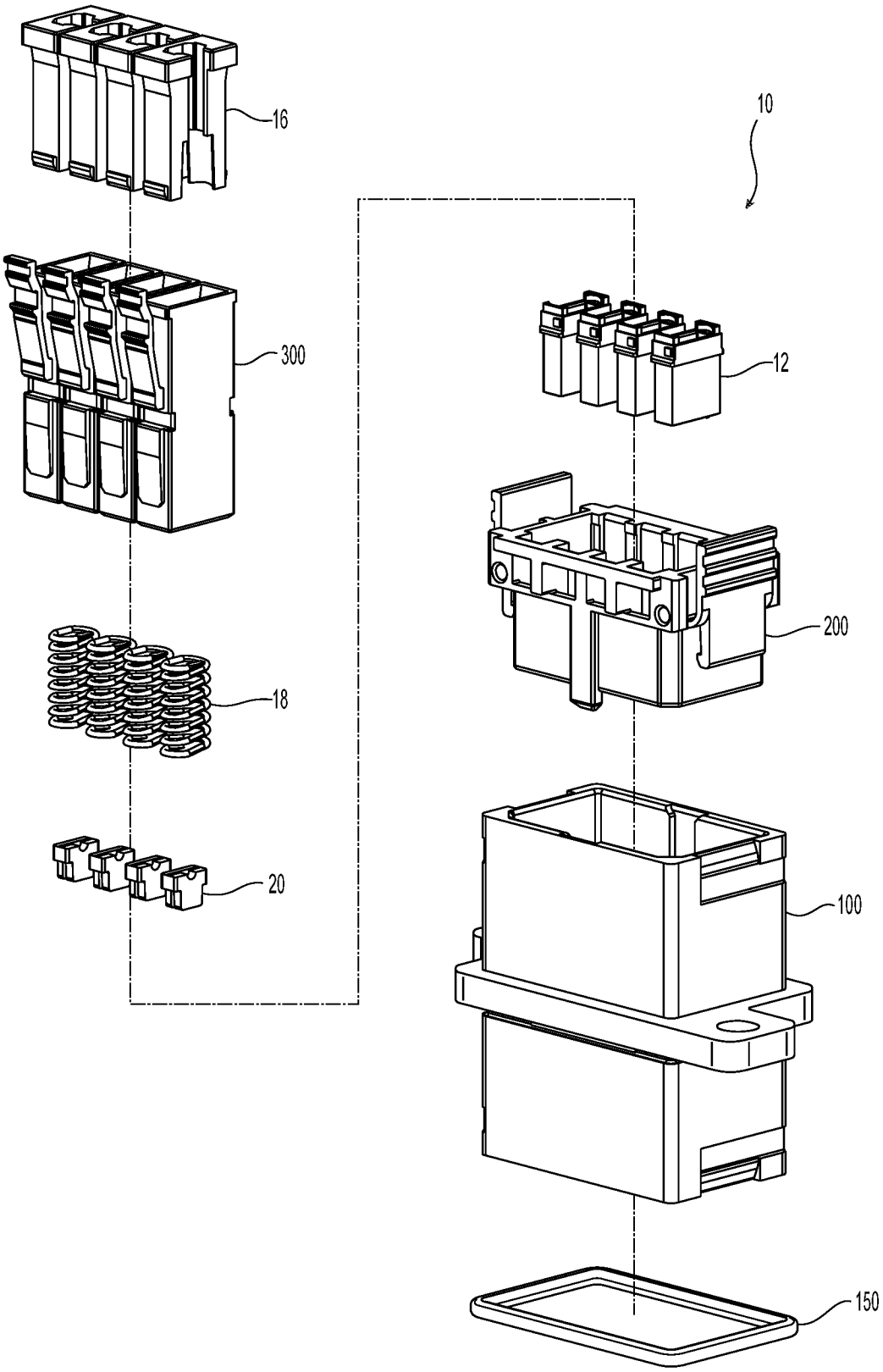


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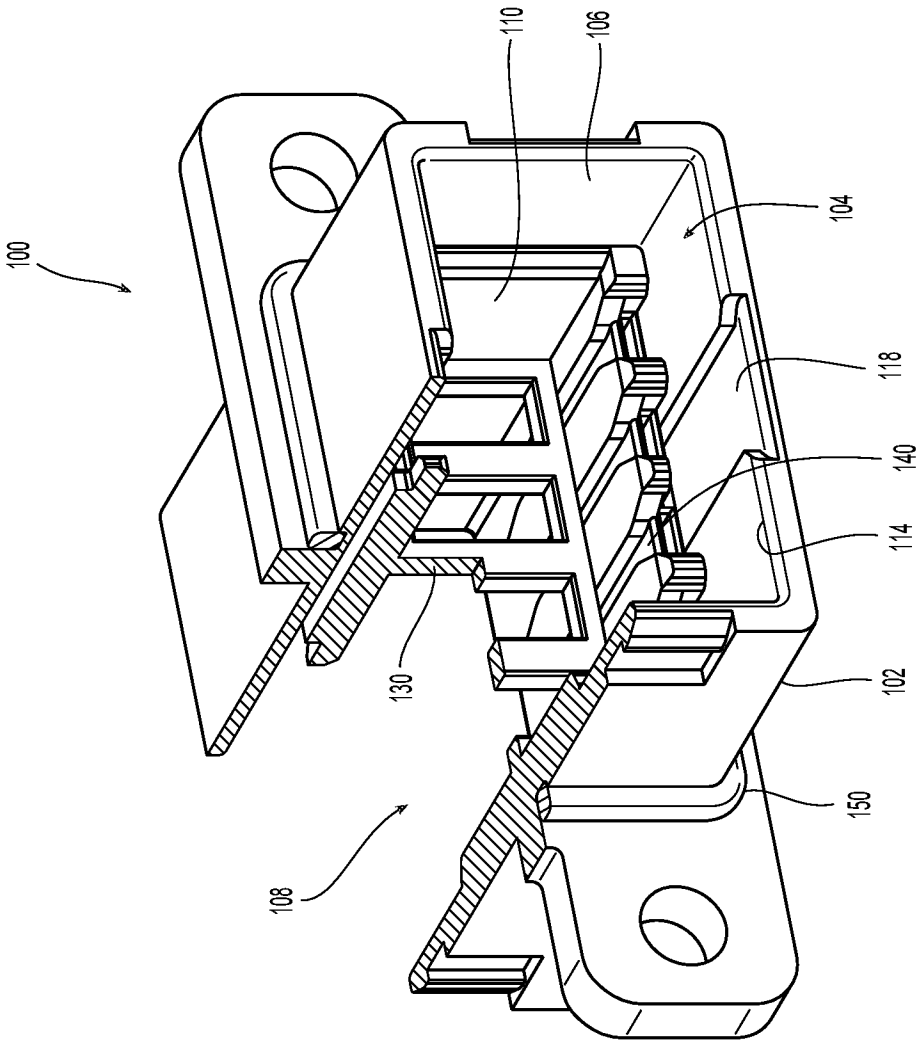


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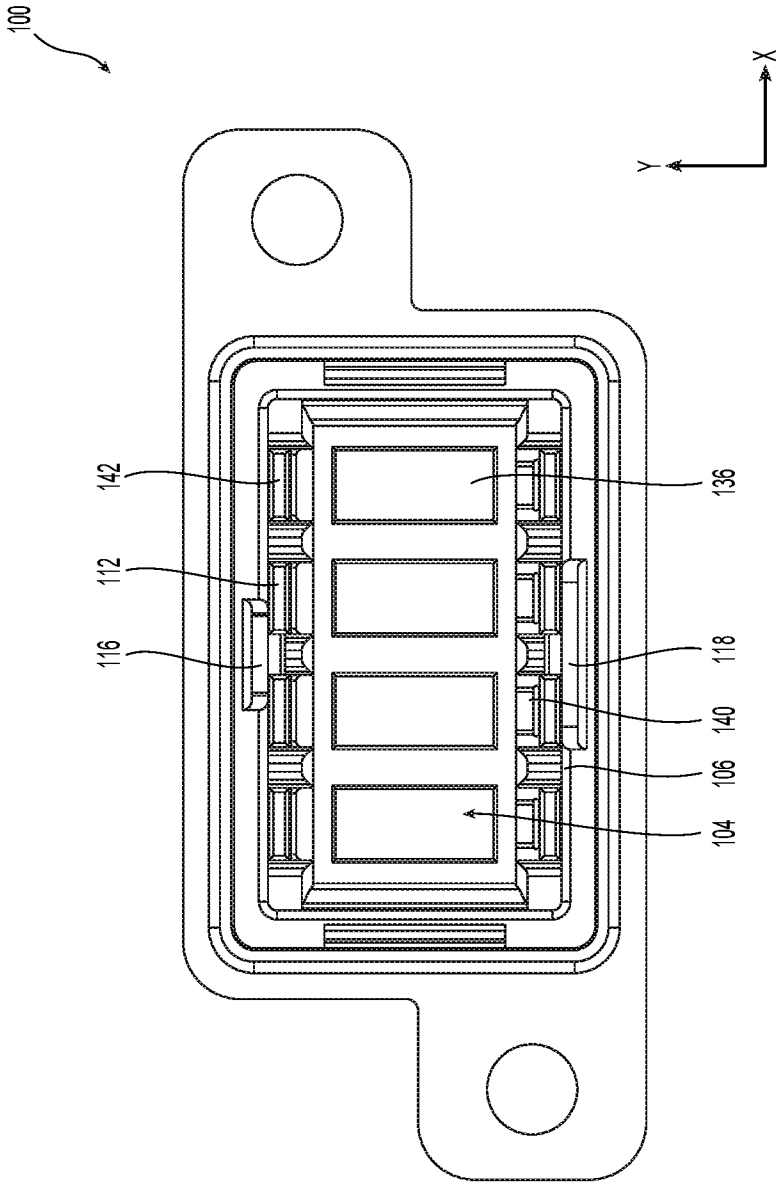


Fig. 4

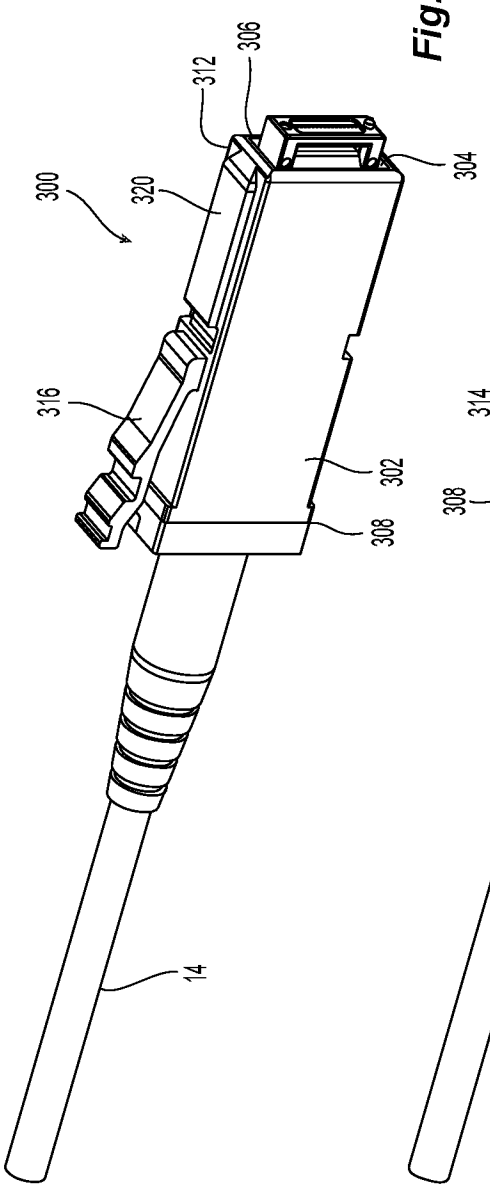


Fig. 5A

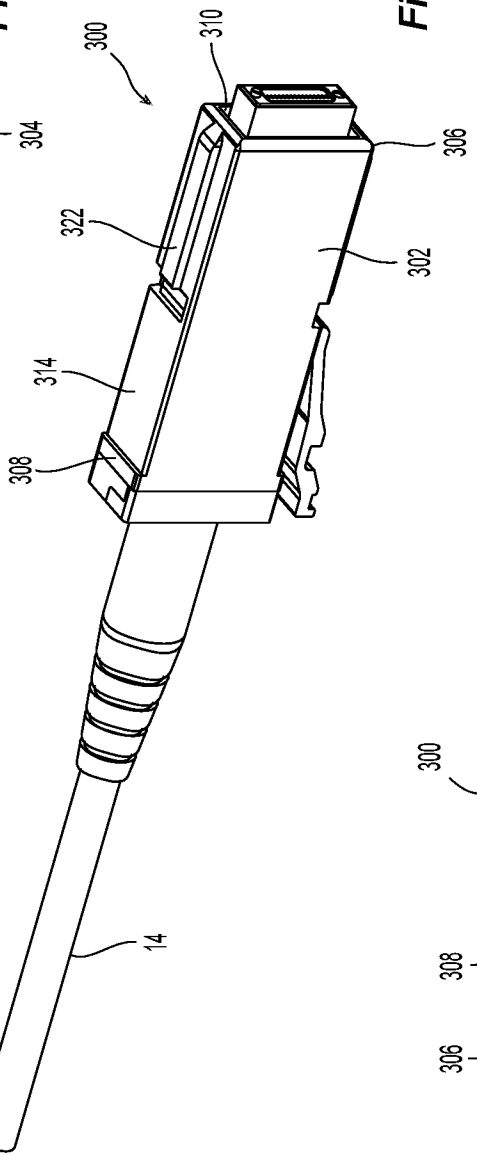


Fig. 5B

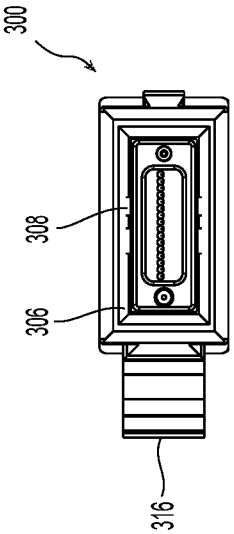


Fig. 5C

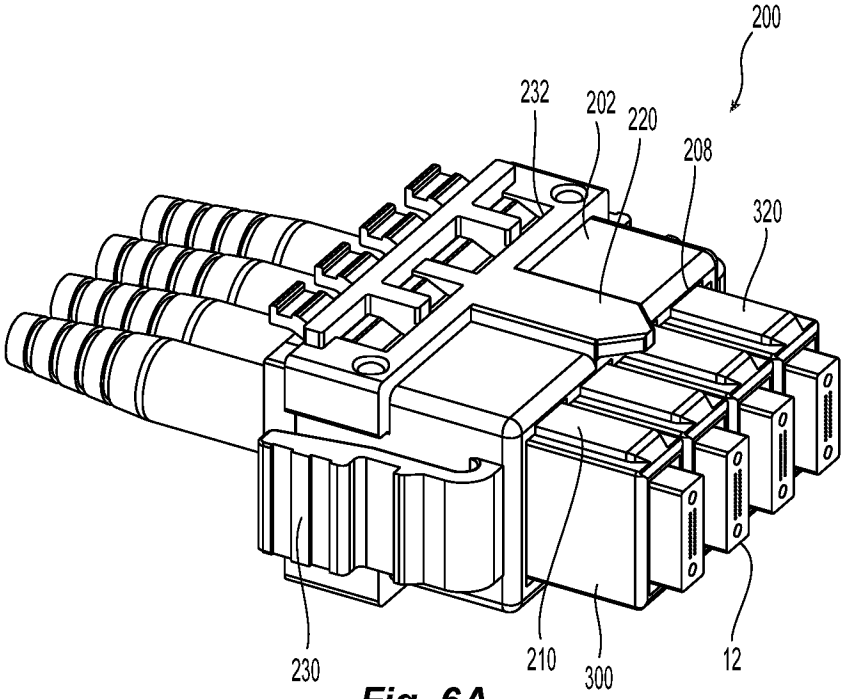

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Fig. 6A

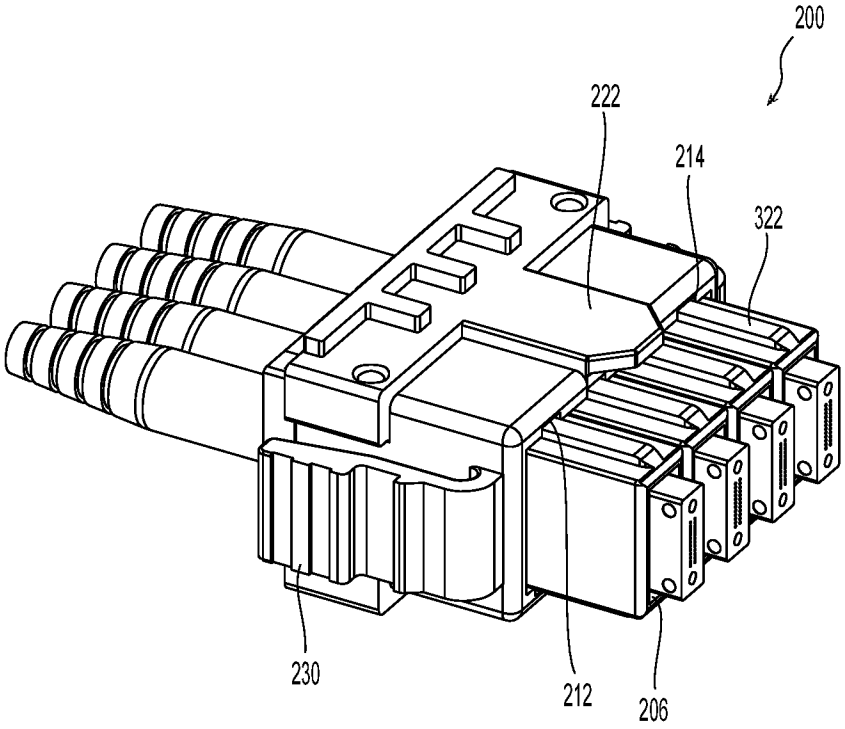

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Fig. 6B

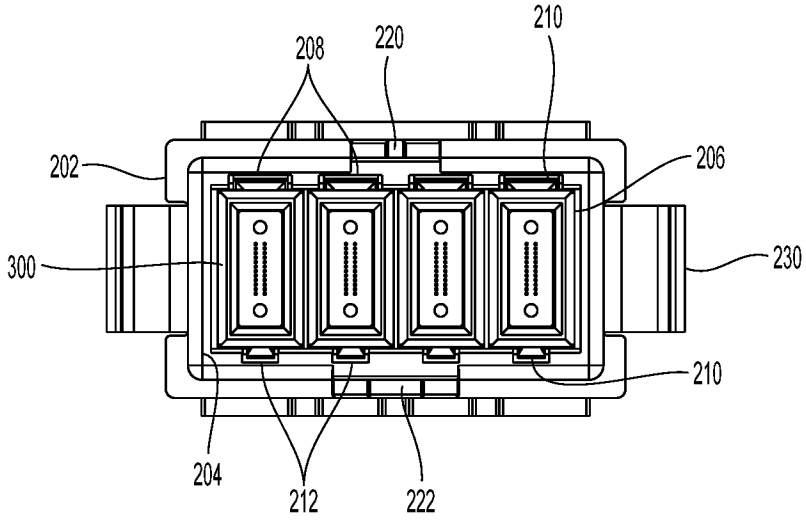


Fig. 6C

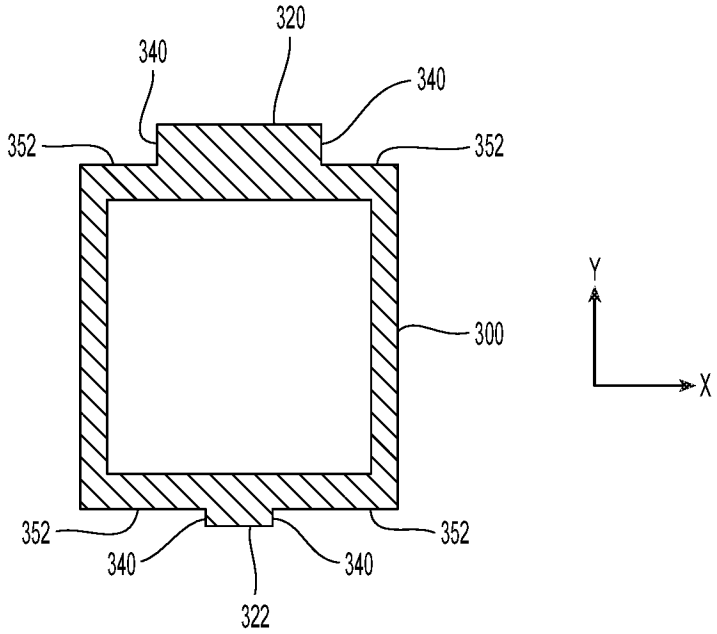

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Fig. 7A

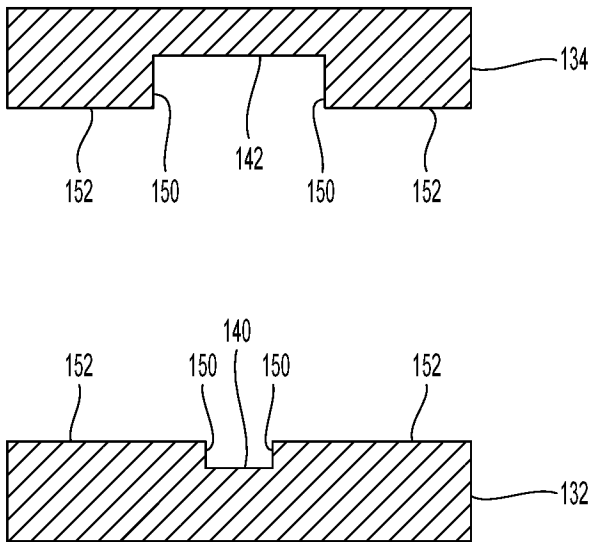

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Fig. 7B

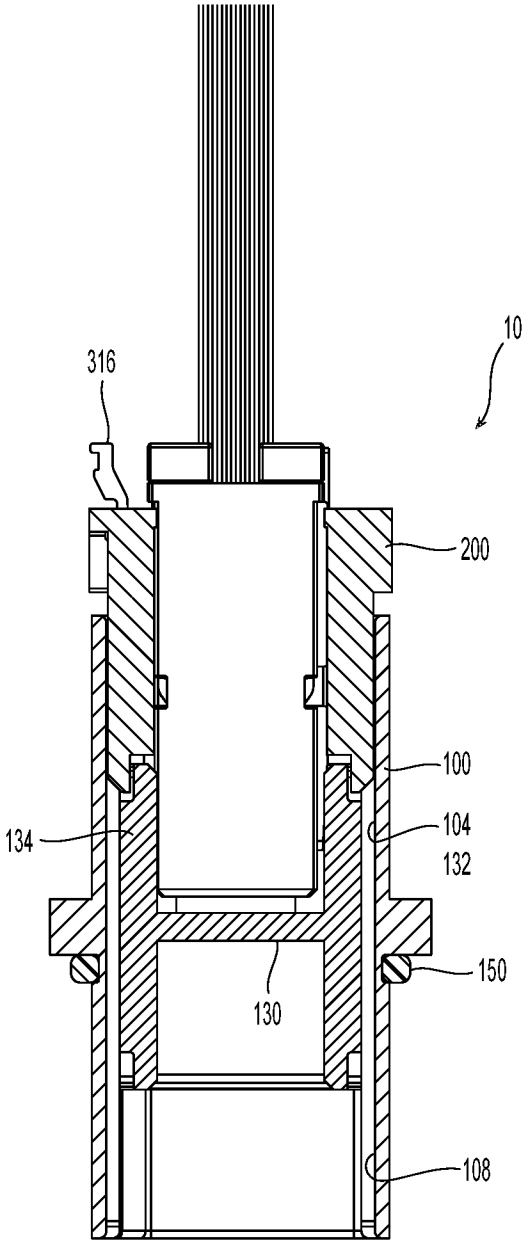


Fig. 8

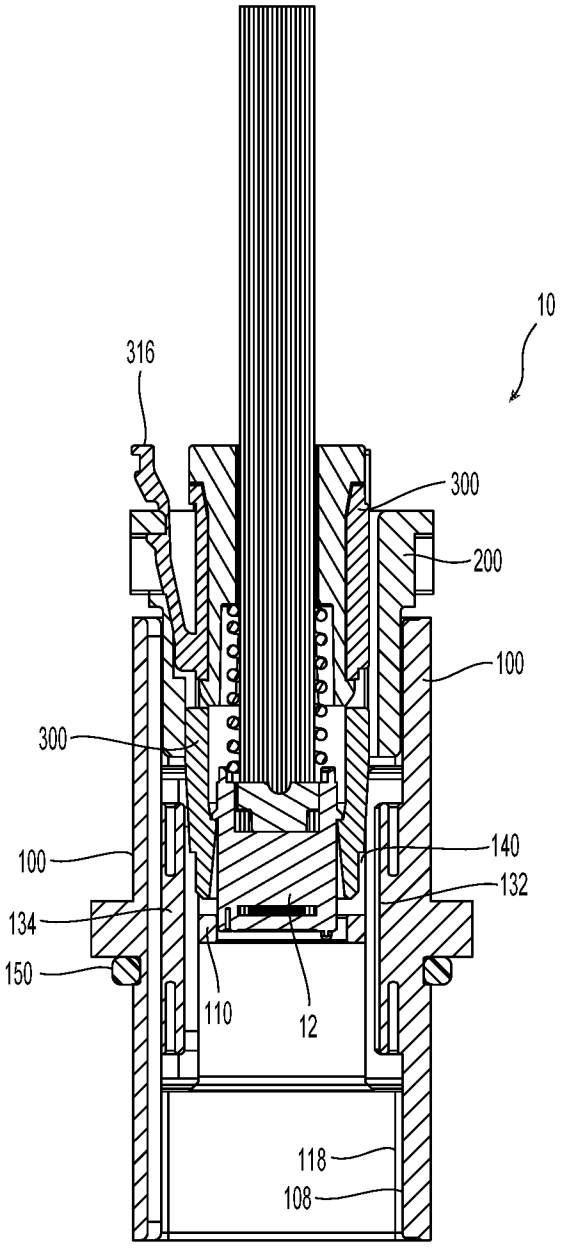


Fig. 9